DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 527-6743
INTERNET: www.honolulu.gov • DEPT. WEB SITE: www.honoluludpp.org

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

AUG 23 2007

RECEIVED
'07 AUG -8 A8:50
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

2007/ED-5(sn)

August 3, 2007

The Honorable Laurence K. Lau, Acting Director
Office of Environmental Quality Control
Department of Health
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Lau:

Subject: Chapter 343, HRS, Final Environmental Assessment (FEA)
Finding of No Significant Impact (FONSI)

Project:	280 Beach Walk Retail Development
Applicant:	First Round Pacific, LLC
Agent:	Group 70 International, Inc.
Location:	270 and 286 Beach Walk, 321 Saratoga Road - Waikiki
Request:	Waikiki Special District Permit (Major)
Proposal:	New Retail Development
Tax Map Keys:	2-6-3: 26, 27, 48, 49 and 58

The Department of Planning and Permitting has reviewed the comments received during the 30-day public comment period, which began on May 8, 2007. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish notice of availability for this project in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four (4) copies of the FEA. If you have any questions, please contact Sharon Nishiura of our Urban Design Branch at 768-8031.

Very truly yours,

Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:pl
Encl.

Doc. 557192

280 Beach Walk Retail Development

TMK 2-6-003:026,027,048,049,058
Waikīkī, Oʻahu, Hawaiʻi

Final Environmental Assessment

Applicant:
First Round Pacific, LLC
Agent: Cory, LLC
4901 Kalaniʻanaʻole Highway
Honolulu, Hawai'i 96821

Prepared by:
Group 70 International, Inc.
Architecture • Planning & Environmental Services • Interior Design • Assets Management
Honolulu, Hawai'i

August 2007

280 Beach Walk Retail Development

TMK 2-6-003:026,027,048,049,058
Waikīkī, Oʻahu, Hawaiʼi

Final Environmental Assessment

This environmental document is prepared in accordance with the requirements of Chapter 343, HRS and Hawaiʻi Administrative Rules, Title 11, Department of Health.

Applicant:
First Round Pacific, LLC
Agent: Cory, LLC
4901 Kalaniʻanaʻole Highway
Honolulu, Hawaiʻi 96821

Approving Agency:
City and County of Honolulu
Department of Planning and Permitting
650 King Street
Honolulu, Hawaiʻi 96813

Prepared by:
Group 70 International, Inc.
Architecture • Planning & Environmental Services • Interior Design • Assets Management
Honolulu, Hawaiʻi

August 2007

TABLE OF CONTENTS

To facilitate the readers' ability to distinguish the revision made from the Draft EA to the Final EA, substantive changes and additions are highlighted. Text that has been deleted is indicated by a ~~strikethrough~~. New, revised and deleted sections, figures and appendices are noted.

SECTION **PAGE**

List of Figures iii
List of Tables iii
List of Appendices iii

1.0 INTRODUCTION 1-1
1.1 Project Information Summary 1-1
1.2 Overview of Proposed Project 1-2
1.3 HRS, Chapter 343 Environmental Review Process and County Review Process 1-3
1.4 Agencies and Public Contacted During the Pre-Consultation and Draft EA Review Periods 1-8
1.5 Necessary Permits and Approvals 1-9

2.0 DESCRIPTION OF PROPOSED ACTION 2-1
2.1 Purpose and Need of Proposed Action 2-1
2.2 Project Area Description & Current Land Uses of Surrounding Area 2-1
2.3 Proposed Project Design of Retail Building 2-2
2.4 Proposed Front-Yard, Open Space, ~~Green~~ Landscaped Space, and Pedestrian Access 2-3
2.5 Proposed Modification of Parking & Loading Areas 2-4
2.6 Construction Schedule & Projected Costs 2-5

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES 3-1
3.1 Climate 3-1
3.2 Geology and Topography 3-1
3.3 Soils 3-2
3.4 Surface and Groundwater Resources& Drainage 3-4
3.5 Hazardous, Toxic, and Radioactive Waste Hazards 3-5
3.6 Natural Hazards 3-5
3.7 Flora 3-7
3.8 Fauna 3-7
3.9 Coastal Waters and Marine Ecology 3-8
3.10 Air Quality 3-9
3.11 Noise 3-10
3.12 Land Use 3-11
3.13 Roadways and Traffic 3-15
3.14 Utilities 3-16
3.14.1 Electrical and Communications 3-16

3.14.2 Water 3-17
3.14.3 Wastewater Disposal 3-17
3.14.4 Gas 3-18
3.14.5 Solid Waste Disposal 3-18
3.15 Public Safety Services 3-18
3.15.1 Police 3-18
3.15.2 Fire 3-18
3.15.3 Emergency Medical Services 3-19
3.16 Socio-economic Characteristics 3-20
3.17 Cultural Resources, Practices, and Landscapes 3-20
3.18 Archaeological & Historic Resources 3-23
3.19 Visual Resources 3-25
3.20 Potential Cumulative and Secondary Impacts 3-26

4.0 ALTERNATIVES TO THE PROPOSED PROJECT 4-1
4.1 No-Action Alternative 4-1
4.2 Alternative Locations for Proposed Project 4-1
4.3 Alternative Land Use Considerations for Proposed Project 4-1
4.4 Alternative Design Schemes 4-4
4.5 Materials used for Proposed Project 4-5

5.0 APPLICABLE LAND USE PLANS AND POLICIES 5-1
5.1 Hawai'i State Land Use District Boundaries 5-1
5.2 Hawai'i State Plan 5-1
5.3 Hawai'i Coastal Zone Management Program 5-2
5.4 City and County of Honolulu General Plan 5-2
5.5 City and County of Honolulu Primary Urban Center Development Plan 5-3
5.6 City and County of Honolulu Land Use Ordinance & WSD Guidelines 5-4

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION 6-1
6.1 Anticipated Determination 6-1
6.2 Reasons Supporting the Anticipated Determination 6-1

7.0 CONSULTED PARTIES, AGENCIES, ORGANIZATIONS AND INDIVIDUALS 7-1

8.0 REFERENCES 8-1

LIST OF FIGURES

FIGURE PAGE

1-1 280 Beach Walk Project Location Map 1-4
1-2 Aerial Map of Waikīkī Area with outlined Project Boundary for 280 Beach Walk 1-5
1-3 Tax Map Key and Special Management Area for 280 Beach Walk....1-6
1-4 Existing Site Conditions of 280 Beach Walk, Parcel 026 and 027 1-7
1-5 Concept Rendering of Proposed 280 Beach Walk Retail Development....1-7
2-1 280 Beach Walk Site Plan (REVISED) 2-6
2-2 280 Beach Walk Ground Floor Plan (REVISED) 2-7
2-3 280 Beach Walk 2nd Floor Plan (REVISED) 2-8
2-4 280 Beach Walk Roof Diagram (REVISED) 2-9
2-5 280 Beach Walk Elevation Study – East Elevation View (REFORMATTED)....2-10
2-6 280 Beach Walk Elevation Study – West Elevation View (REFORMATTED)....2-11
2-7 280 Beach Walk Elevation Study – North Elevation View (REFORMATTED)....2-12
2-8 280 Beach Walk Elevation Study – South Elevation View (REFORMATTED)....2-13
2-9 Required Front Yard & ROW Easement with Allowed Footprint (REVISED))....2-14
2-10 Proposed Building Footprint with Front Yard ~~& ROW Requirement~~ (REVISED) 2-15
2-11 280 Beach Walk Proposed ~~Green~~ Landscaped Space and Transferred Public ROW (REVISED) 2-16
3-1 Soil Classifications....3-3
3-2 FIRM Classification and Tsunami Inundation Zone Map....3-6
3-3 State Land Use Designation and County Zoning....3-12
3-4 Waikīkī Special District Building Height Restrictions....3-13
3-5 City and County of Honolulu Primary Urban Center Development Plan....3-14
3-6 280 Beach Walk Project Area Boundary Overlaid on 1881 S.E. Bishop Map....3-21
3-7 Archaeological Trench Areas for 280 Beach Walk Project....3-24
3-8 View of Project Area from Mauka Side of Kalākaua Avenue 3-27
3-9 View of Project Area from Beach Walk Triangle Park 3-27
4-1 Multi-Story Residential & Retail Tower Alternative Site Plan....4-2
4-2 Multi-Story Residential & Retail Tower Alternative 4-3
4-3 Alternative Design Configuration – ROW Not Transferred to On-Site Easement (REVISED) 4-6

LIST OF TABLES

2-1 Proposed Space Program for 280 Beach Walk Retail Development 2-2

LIST OF APPENDICES

A Pre-consultation Handout & Comments Received, and Draft EA Comment Letters and Provided Responses
B Order of Magnitude Estimate for 280 Beach Walk Construction
C Phase 1 Environmental Site Assessment & Subsequent Surface Soil Sampling
D Traffic Impact Report for 280 Beach Walk Waikīkī Development
E ~~Interim Report:~~ Final Cultural Impact Assessment for the Proposed 280 Beach Walk Retail Development
F Archaeological Assessment Report for the 280 Beach Walk Retail Development
G Site Development Criteria for 280 Beach Walk

SECTION 1.0
Introduction

1.0 INTRODUCTION

1.1 PROJECT INFORMATION SUMMARY

Type of Application: Environmental Assessment (EA)

Applicant/Land Owner:
First Round Pacific, LLC
Agent: Beall Corporation
4901 Kalaniʻanaʻole Highway
Honolulu, Hawaiʻi 96821
Contact: Cory A. Beall
Telephone: (808) 542-9846

Accepting Authority:
City and County of Honolulu
Department of Planning and Permitting,
Urban Design Branch
650 South King Street
Honolulu, Hawaiʻi 96813
Telephone: (808) 527-5369

Name of Action: 280 Beach Walk Retail Development

Agent:
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaiʻi 96813
Contact: Kāwika McKeague
Telephone: (808) 523-5866

Project Location: Waikīkī, Oʻahu, Hawaiʻi *(Figures 1-1 and 1-2)*

Tax Map Key:
TMK (1) 2-6-003: 026 (Vacant Lot) *(Figure 1-3)*
TMK (1) 2-6-003: 027 (Vacant Lot)
TMK (1) 2-6-003: 048 (Existing Parking Structure)
TMK (1) 2-6-003: 049 (Parking/Loading Access Easement)
TMK (1) 2-6-003: 058 (Utility Easement)

Land Area:

~~TMK (1) 2-6-003: 026/027~~	~~21,394 square feet (SF)~~
TMK (1) 2-6-003:026	13,664 SF
TMK (1) 2-6-003:027	7,730 SF
TMK (1) 2-6-003:048	6,272 SF
TMK (1) 2-6-003:049	4,888 SF
TMK (1) 2-6-003:058	2,710 SF
TOTAL Land Area	**35,264 SF (0.81 acres)**

State Land Use District: Urban District (U)

County Zoning:
Waikīkī Special District,
TMK (1) 2-6-003:026 Resort Commercial Precinct (RCP)
TMK (1) 2-6-003:027 Resort Mixed Use Precinct (RMUP)

	TMK (1) 2-6-003:048 RCP TMK (1) 2-6-003:049 RCP TMK (1) 2-6-003:058 RCP, RMUP
City / County Development Plan:	Primary Urban Center - ~~Resort Mixed Use~~ District Commercial
SMA:	Location outside of the SMA, no action required
Flood Zone:	FIRM Zone AO (+2 feet)
Anticipated Determination:	Finding of No Significant Impact (FONSI)

1.2 OVERVIEW OF PROPOSED PROJECT

First Round Pacific, LLC is proposing a retail development which will be known as 280 Beach Walk. The project is situated on approximately 0.81 acres on the island of Oʻahu, in the moku (district) of Kona, within the ahupuaʻa of Waikīkī *(Figure 1-1)*. The project site area is an approximately 35,256 square foot (SF) property located near the north end of the elongated block bounded by Kālia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west *(Figure 1-2)*. The project area is presently a largely empty lot that includes a two-level parking garage, a permanent access easement and, until recent demolition, low-rise buildings, including the Hula Hut Restaurant.

Envisioned as a subtle yet important piece to the ongoing revitalization effort within the Waikīkī corridor, the proposed project will contribute to an emerging trend of redevelopment that defines a key gateway experience to the State's largest investment in the tourism industry. The design of the new building depicts a series of two-story storefronts; each of the project's retail units oriented directly to Kalākaua Avenue. Storefront units with direct access from the street will coexist with a second floor restaurant and outdoor dining experience designed to reflect the diversity that makes Waikīkī special and unique. The building design and appurtenant landscaping will comply with the requirements of the Waikīkī Special District Design Guidelines in a manner that creates strong visual ties to the activity along Kalākaua Avenue and the Beach Walk corridor.

The project area includes the following Tax Key Map (TMK) parcels: TMK 2-6-003: 026, 027, 048, 049 (which is owned by RGM Trust) and 058 *(Figure 1-3)*. While all the parcels are defined within a Joint Development Agreement (JDA), parcels 026 and 027 are the primary properties subject to major redevelopment and are thus the primary focus of this environmental review. However, other planned improvements including those to the existing parking facility and access on parcels 048 and 049 have been fully considered in the environmental study. Based upon preliminary review of historical photographs, maps, and land use records, the proposed development site had been used for a mixture of commercial, residential, and hospitality properties since prior to 1914. Most recently, the parcels of the JDA were occupied by a residential apartment-hotel building on parcel 027 and the Hula Hut restaurant on parcel 026. In 2000, the residential building on parcel 027 was demolished. Similarly, the restaurant building located on parcel 026 was demolished in 2004. Both parcels have remained vacant since that time. Currently, parcels 026 and 027 are gravel-covered vacant lots, used for parking and surrounded by a chain link fence *(Figure 1-4)*.

The project area proposed for development consists of a 34,199 SF retail building on parcels 026 and 027. The proposed development includes a series of two-story storefronts, accentuated with a

glazed-tile roof form that captures the street-oriented building expressions and traditions reminiscent of Honolulu's earliest places of commerce. The proposed height of the building's roof ridge is 50 feet, a dimension that closely references the existing conditions of the adjacent Burberry and Hawaiiana Hotel buildings *(Figure 1-5)*. An existing two-level parking structure occupies Parcel 048. Portions of the parking structure, its entrance and exit, are located on Parcel 049, which is not owned by First Round, LLC. Access via a perpetual access easement is secured through a Conditional Use Permit (Conditional Use Permits 2000/CUP-84) between the two landowners. The easement will continue to be utilized as a means for parking access as well as for access to a new loading dock for the proposed development. A portion of the northeast corner of the parking structure will be demolished and an existing ramp to the lower level of the structure will be relocated in order to allow vehicle access to the new loading area for 280 Beach Walk. Parcel 058 is a utility easement. Additional minor site and surface improvements will occur in support of the parking, loading, and circulation requirements.

The surrounding area is heavily developed with commercial properties including extensive street-front retail, residential condominium high-rise structures, hotels, and public parking areas. Specifically, the proposed development is located between the Burberry Store and the Hawaiiana Hotel. The Beach Walk Triangle Park and the ANA Office building are located directly across Beach Walk to the east of the project site. Within one block of the site area are newer developments such as the Outrigger Waikīkī Beach Walk, Trump Tower, the Royal Hawaiian Shopping Center, and retailer's such as Tiffany's, Coach, Chanel, and Tod's.

1.3 HRS, CHAPTER 343 ENVIRONMENTAL REVIEW PROCESS AND COUNTY REVIEW PROCESS

In accordance with the requirements of Chapter 343, Hawai'i Revised Statutes, a Draft EA is being prepared as the proposed project is located within the City and County of Honolulu Waikīkī Special District. Upon completion, the Draft EA will be submitted to the State Office of Environmental Quality and Control (OEQC). A notice of the Draft EA will then be published in the Environmental Notice, which will also commence a 30-day public review period. The Draft EA will be presented in eight sections and will include the following content: a detailed summary and project description; a description of the environmental setting; a section that identifies potential impacts and prescribed mitigative measures on identified natural, cultural, and socioeconomic resources as well as project demands on existing infrastructure; a description and analysis of alternatives; a discussion of the project's relationship to State and County land use designations and regulations; the anticipated determination and reasons for its believed outcome; a list of necessary permits and approvals; an updated list of agencies, organizations, and individuals that participated in the pre-consultation phase of the Draft EA and that received copies of the Draft EA; and a list of references cited or used in developing the Draft EA. After the 30-day review period of the Draft EA has been completed, public comment received will be considered and addressed, as appropriate. A Final EA will then be prepared, highlighting key areas of the document that were revised, updated, or modified based upon information received during the public comment period.

Upon acceptance of the Final EA, a Finding of No Significant Impact (FONSI) is anticipated. A Special District Permit (Major) application would then be filed with the City and County of Honolulu, Department of Planning and Permitting, Urban Design Branch for review and approval, as per the requirements of the Revised Ordinances of Honolulu, Chapter 21 (Land Use Ordinance), Article 9 (Special District Regulations). Construction would begin immediately after the issuance of the Special District Permit (Major) and other ministerial permits.

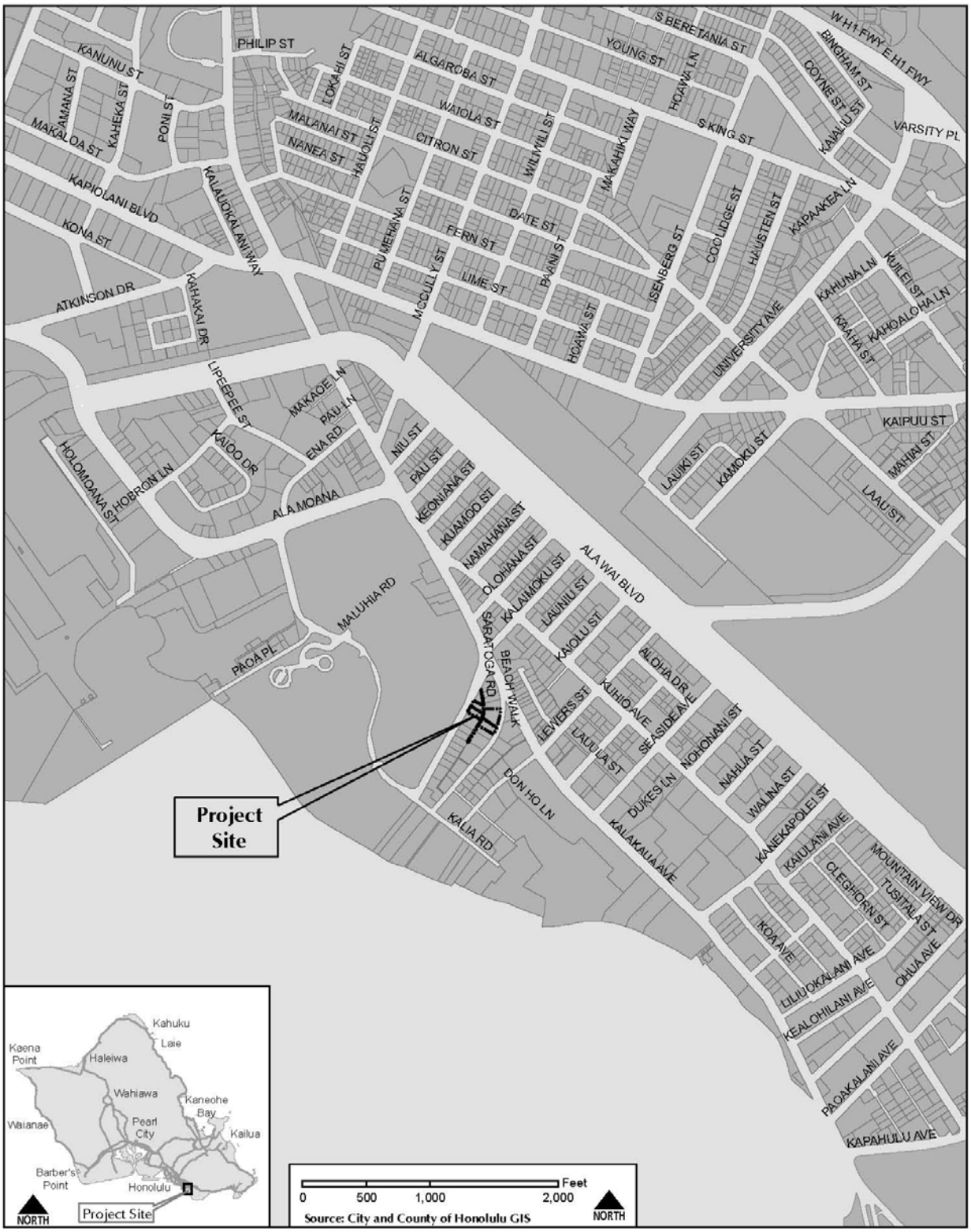


Figure 1-1 280 Beach Walk Project Location Map

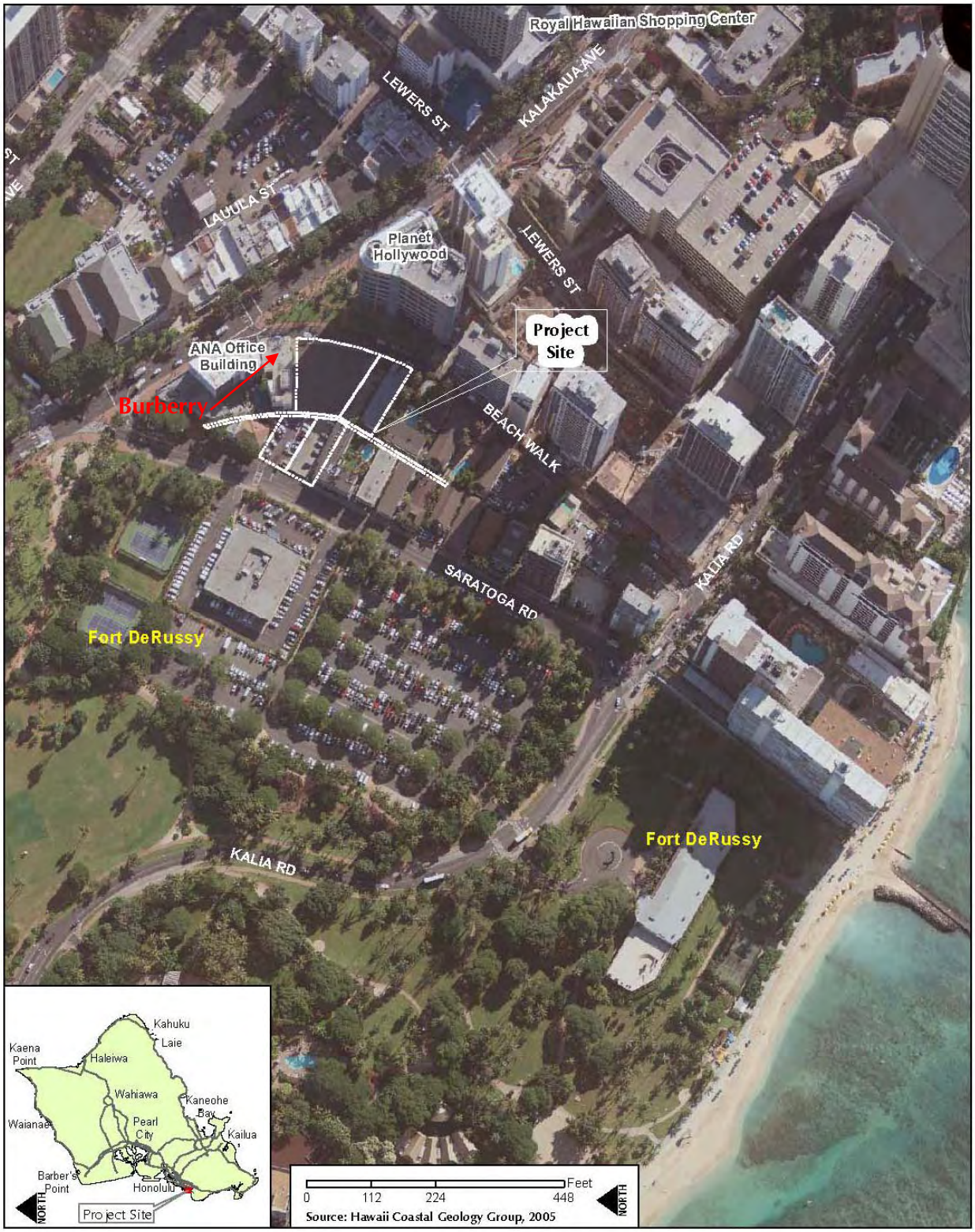


Figure 1-2 Aerial Map of Waikīkī Area with outlined Project Boundary for 280 Beach Walk

Figure 1-3 Tax Map Key and Special Management Area for 280 Beach Walk

Figure 1-4 Existing Site Conditions of 280 Beach Walk, Parcel 026 and 027

Figure 1-5 Concept Rendering of Proposed 280 Beach Walk Retail Development

1.4 AGENCIES AND PUBLIC CONTACTED DURING THE PRE-CONSULTATION AND DRAFT EA REVIEW PERIODS

A Pre-consultation Memo and Participant Letter were sent in January 2007 to initiate the environmental review process. ~~These~~ Copies of these documents along with the comment and response letters received and issued are included as *Appendix A*.

A list of agencies and other parties that were presented notice of the proposed development or were contacted for input and comment regarding the proposed project during the pre-consultation period of the Draft EA is provided below. A listing of those agencies, organizations, and individuals that will be provided an opportunity to review the Draft EA is provided in Section 7.0 of this document.

State Agencies
Department of Business, Economic Development & Tourism, Office of Planning
Department of Land and Natural Resources (DLNR), Director's Office
DLNR, Office of Conservation and Coastal Lands
DLNR, State Historic Preservation Division
Office of Environmental Quality Control
Office of Hawaiian Affairs

City and County of Honolulu
Department of Planning & Permitting
Department of Design & Construction
Department of Environmental Services

Elected Officials
State Senator Gordon Trimble
State House Representative Tom Brower
State House Representative Scott Y. Nishimoto
Council District Representative Charles Djou

Citizen Groups, Individuals & Consulted Parties
Waikīkī Neighborhood Board Association No. 9, Robert Finley (Chair)
Waikīkī Improvement Association, Patricia Tam (Chair)
RGM Trust
Ronald Petty
Jay Shidler
Saratoga Partners, LLC
Dyer Beach Walk Holdings, LLC
Sorensen Family
Florence T. Cooper
Nomura Financial, LTD
Nancy Walker
Saratoga Apt-Hotel, Inc.
Marie Lee Trust
Urasenke International, Inc.

1.5 NECESSARY PERMITS AND APPROVALS

Project development and implementation is scheduled to begin immediately following approvals of necessary permits and approvals, and available funding. A summary of possible required approvals is provided below:

- Issuance of FONSI for the HRS 343 Final EA
- Application and Acceptance of City and County of Honolulu Special District Permit (Major) application
- Ministerial Permits including grading and building permits, sewer and water connection permits, sidewalk permits, and possible subdivision approval to transfer right-of-way to proposed on-site easement

All permits and approvals, including ministerial permits, will be obtained prior to construction.

SECTION 2.0
Description of Proposed Project

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 PURPOSE AND NEED OF PROPOSED ACTION

Located in the heart of Waikīkī, the proposed retail development of 280 Beach Walk will bring a sense of enhanced vitality to the heart of Hawai'i's main economic market. In the immediate proximity of the Fort DeRussy Reservation, the prominent retail storefronts of 2100 Kalākaua Avenue, Outrigger's Waikīkī Beach Walk, and the new Trump Tower, the proposed 280 Beach Walk will contribute to an emerging trend of redevelopment that defines a key gateway experience for Honolulu's most active pedestrian district. The proposed development is specific to enhancing the physical character and ambiance of the immediate vicinity but will also be an integral but small extension of the overall urban revitalization effort along the main street front of Kalākaua Avenue into the heart of Waikīkī.

Currently, the gateway into Waikīkī introduces visitors and residents to a mix of urban and open-space landscaped experiences that begin to blend one into the other in a manner that is reflective of the rich heritage and cultural diversity of Hawai'i yet contemporary in the urban form and design. It is anticipated that the specific experience of the 280 Beach Walk project from Kalākaua will be enriched by its frontal relationship to a small public open space that places the project site in a unique position off of the street. From this point of view, 280 Beach Walk will be perceived both as a special destination within the district, as well as an important visual connection to the area's revitalized ocean-side developments.

Inspired by Waikīkī's special sense of place, the design of 280 Beach Walk will transform approximately 0.81 acres (~~35,256~~ 35,264 SF); including 21,394 SF of currently vacant yet previously developed land into a modest but foremost destination of signature shops and dining. The project design will emphasize this district's sensibility to pedestrian scale through a carefully crafted architecture that celebrates a strong connection between its use, context, and climate.

2.2 PROJECT AREA DESCRIPTION AND CURRENT LAND USES OF THE SURROUNDING AREA

The project site for the proposed 280 Beach Walk Retail Development consists of five properties totaling 0.81 acres, which are defined by a Joint Development Agreement (JDA).

Tax Map Key (TMK) parcels 1-2-6-03: 026 and 1-2-6-03: 027 are both unimproved and consist of vacant land covered with gravel. A residential apartment-building and restaurant formerly occupied the two parcels but were demolished in 2000 and 2004, respectively. Approximately 21,394 SF, the two parcels currently appear to be one lot and are surrounded by a chain link fence.

The development property also consists of TMK parcel 1-2-6-03:058 (2,710 SF), which serves as a utilities easement, and TMK parcel 1-2-6-03: 048 (6,272 SF), a 2-story parking structure with a basement level. The property owners have obtained a perpetual access easement from the owner of TMK parcel 1-2-6-03:049 (4,880 SF) to allow access to the parking structure on parcel 048 as well as to the loading dock of the proposed new development.

The project area *(Figure 1-1)* is bordered to the east by Beach Walk beyond which is the Wyland Plaza, a multi-tenant commercial high rise. The tenants of the Wyland Plaza include the Wyland Gallery, Planet Hollywood, Marie's Health Food, and a parking garage. To the west, the project

area is bordered by Saratoga Road, beyond which is the U.S. Post Office building. A tennis court is situated northwest of the project area and public parking lot is located southwest of the project area beyond Saratoga. To the immediate north of the project area is the Burberry Plaza, which fronts Kalākaua Avenue. The Hawaiiana Hotel is located just south of the project area.

2.3 PROPOSED PROJECT DESIGN OF RETAIL BUILDING

The focused area for redevelopment is to occur on approximately 21,394 SF that comprise parcels 026 and 027. This portion of the 280 Beach Walk project will entail the development of retail and dining fronting the vibrant pedestrian experience of Waikīkī's Kalākaua Avenue. Pedestrians will be greeted by a building expression composed of a series of two-story storefronts each accentuated by a dramatic glazed-tile roof form in a way that recalls the street-oriented building traditions of Hawai'i's earliest places of commerce. Under the City and County of Honolulu Land Use Ordinance (LUO), the allowable building area for the project area is 68,329 SF, the proposed development would include approximately 34,199 SF of restaurant, retail, egress, and support space (*Table 2-1*).

280 Beach Walk Project Components	1ST Floor (SF)	2ND Floor (SF)	TOTAL (SF)
RETAIL	10,545	2,550	13,095
RESTAURANT	5,050	12,385	17,435
LĀNAI		1,714	1,714
EGRESS	571		571
SUPPORT	1,384		1,384
TOTAL	17,550	16,649	34,199

Table 2-1 Proposed Space Program for 280 Beach Walk Retail Development

The ground floor retail space will entail the construction of six units utilizing a total of approximately 10,545 SF. The retail bays will vary in size from 1,100 to 5,200 SF. An additional 2,550 SF of retail space would be provided on the second floor, yielding a total of 13,095 SF for the project. Approximately 5,050 SF of ground floor space will be utilized as part of the entry and retail program for the proposed second floor restaurant. The dining area of the restaurant itself will entail the use of 12,385 SF on the second floor with an additional 1,714 SF reserved for an outdoor lānai dining area. An additional 1,955 SF will be used for egress and back of house support *(Figures 2-1 to 2-9)*.

A focus of the design is to orient each of the project's six retail units to directly address Kalākaua Avenue. Overall, the effect of the storefront offsets will be to blend with the curvilinear geometry of Beach Walk as it creates a rhythm of repetition consistent with the buildings of the surrounding area. Planned variation in the width of the storefronts will further emphasize a new development which is naturally connected to the diversity of retail and restaurant programs that characterize Waikīkī's streetscape. Additionally, the material, proportion, and use of the proposed storefronts are designed to be appropriate to the pedestrian-level experience. The experiences of strolling through the project's beautifully appointed landscape design or dining on the second floor dining lanai with strong visual ties to the activity of Kalākaua will tie 280 Beach Walk to the distinctive sense of place qualities in Waikīkī.

The architectural character of 280 Beach Walk is intended to articulate thoughtful attention to hierarchy, detail, material, and color in a manner that allows the project to derive its identity from project site's location, shape, and surrounding context. Although the project is located in an area of Waikīkī that allows for building heights up to 300 feet, the new two-story building would have a height of approximately ~~50~~ 46 feet at the highest ridge line.

Experienced from the street, the large pitched roof forms of clay-tile will articulate a highly textured and carefully crafted expression that is consistent with the hand-built construction methods of Hawaiian architecture. These roof forms are supported by a legible framework of column and beam components that describe the structural principles of a shed-roof typology that has long been a tradition in the built-form of the Pacific Rim. The resulting spatial quality of the architectural design underlines this development as a potential to be a special place of public use within Waikīkī characterized by a real sense of connection to its adjacent built and open spaces.

The design proposes a use of materials appropriate to blending the unique quality of the development into the continuity of the Waikīkī experience. Material colors have been selected to emphasize a concentration of natural earth tones with accent hues of varying colors that celebrate the area's rich cultural heritage. The design of the building will include a blend of materials to be used throughout the project, including the use of natural woods, metal, and plaster combined with glass. Additionally, modest signage panels designed within the guidelines of the Waikīkī Special District will be located within a three-foot high horizontal transom above the recessed doorways leading to each unit. Together, the qualitative use of materials and compositional elements found in 280 Beach Walk will give the development a tactile and approachable quality. At night, the qualities of the overall design will continue to be legible through a lighting design that places subtle emphasis on the key features of the landscape and building form.

2.4 PROPOSED FRONT-YARD, OPEN SPACE, ~~GREEN~~ LANDSCAPED SPACE, AND PEDESTRIAN ACCESS

The proposed architecture design of 280 Beach Walk will also be complimented by a landscape design that allows the public to experience the calming outdoor ambiance of Waikīkī's ideal climate. In accordance with the standard requirements of the City and County of Honolulu LUO and Waikīkī Special District Design Guidelines, the building is to be placed fifteen feet back from the Beach Walk property line and maintain a 5-foot right of way (ROW) easement for public access and use *(Figure 2-9)*.

The area of required front-yard space under the LUO is 2,949 SF. The proposed building footprint provides 2,992 SF of front-yard space *(Figure 2-10)*. Further, the LUO requirement for open space is satisfied by the provision of area for front yard and the area of easements, which totals 3,654 SF.

The proposed design of the front-yard includes a gentle rolling curb-side berm placed to elevate the project's ground plane in accordance with the flood-protection guidelines of the area. Dotted with tropical vegetation, the berm will establish a natural transition from the adjacent street and walkways to the proposal's distinct linear plaza. Stair and ramp access at both the mauka and makai sides of the plaza will lead pedestrians to the plaza built of natural stone and cut to a pattern that blends into the experience of Waikīkī. To accommodate for the proposed design, transferring the public right-of-way to an on-site easement would be required.

As a result, 2,349 SF of the 2,992 SF of front-yard space would be transferred into ~~green~~ landscaped space *(Figure 2-11)*. The required landscaped area is the required front-yard less

necessary access ways and drives, which ranges from 1,000 SF to 1,975 SF. The preferred landscape scheme meets the requirement by providing a continuous ribbon of landscape that provides an elegant streetscape transition to the store fronts. Coconut palms arching over fragrant Plumeria trees that provide shade along the walkway is planned to create an effective landscape buffer between the street and the pedestrian areas. The canopies of trees will be maintained to allow pedestrians and viewers from vehicles to see the store fronts clearly under the canopies.

The landscaped area is to be accented with low growing dwarf Lauae fern, with colorful shrubs near the walkway of Hibiscus and Spider Lilies. The landscaped area will maintain sight lines along the street and from the street to the storefronts. Maintenance and upkeep of the landscaped areas will be the responsibility of the property owner.

Most of the pedestrian foot traffic emanates from ongoing retail and restaurant activities along Kalākaua Avenue. The propose front-yard area is wide enough to help create a comfortable pedestrian space near the storefronts that does not conflict or feel imposed upon from the street. Further, the preferred front-yard design scheme with the use of the landscaped berm along the front edge will deter pedestrians from illegally crossing Beach Walk from the adjacent Beach Walk Triangle Park. The resulting front-yard draws qualities of design standards from Kalākaua Avenue as the main street into Waikīkī's auxiliary roadways such as Beach Walk, and promotes a public sense of place appropriate to the pedestrian use ~~of the area~~ within the immediate vicinity.

2.5 PROPOSED MODIFICATION OF PARKING AND LOADING AREAS

Most parking within the area is currently accommodated with limited on street metered parking and nearby parking garages. As per the requirements of the LUO, the ground floor level retail is exempt from any provisions for parking. With the proposed second floor dining establishment, there will be a need to provide one parking space per 800 SF, or the equivalent of ~~16~~ 20 spaces. This requirement will be satisfied by the existing parking facility on parcel 048, which will undergo ~~some~~ renovation. The existing JDA requires that 26 additional spaces are dedicated for RGM Trust, as the owner of parcel 049. Total required parking under the LUO is 46 spaces.

The existing parking structure and adjacent surface parking lot, which are both accessed from Saratoga Road, can accommodate a maximum of 47 standard size vehicles and does not provide any designated loading spaces. Existing parking is managed via a paid-for self-parking system with an attendant on to collect parking fees and direct vehicle movements. The current parking layout is not consistent nor compliant with LUO standards and definitions.

Loading and delivery spaces are limited along Beach Walk. Most deliveries to be conducted for the 280 Beach Walk project will be conducted via Single-Unit Trucks and other small vehicles and are short-term with drivers taking no more than a few minutes to complete their deliveries. However, some vendors, notably beverage and food vendors, will take a longer time to service the on-site dining establishment. To accommodate for the anticipated delivery loading demand, a new loading area with three delivery bays to be accessed via Saratoga Road will be developed to provide back-of-house service to the retail and dining establishment (refer to *Figure 3-1*).

To provide for access and construction of the new on-grade loading dock, approximately 2,200 SF of the existing 1-story basement parking structure will be demolished along its east end. The ramp leading down to the existing below-grade parking level would be relocated. During this phase of selective demolition and construction of a new basement wall, some limited dewatering is anticipated.

Landscaping along the new parking area will include the use of Plumeria or Stemmadenia trees. These types of trees are medium canopy trees that provide fragrant flowers, canopies for shade and are consistent with the Waikiki Special District Guidelines as it pertains to the use of plant materials. The parking lot will be screened from Saratoga Road by a hedge of Hula Girl Hibiscus, maintained at a height of 30". This accent shrub treatment will extend along the planting areas that border adjacent properties or lots. A low groundcover, like Dwarf Laua'e will be added throughout any planting area within the parking lot. The landscaped areas along the parking area will be automatically irrigated.

Additional but minor site and surface improvements in support of the parking, loading, and circulation aspects of the 280 Beach Walk development will occur on Parcels 048, 049, 058.

2.6 CONSTRUCTION SCHEDULE AND PROJECTED COSTS

Project construction would start immediately after issuance of necessary permits and approvals. Scheduled duration for construction is anticipated to be 12 months. Estimated costs for the proposed development are approximately $12.5 million. An order of magnitude estimate is provided as *Appendix B*.

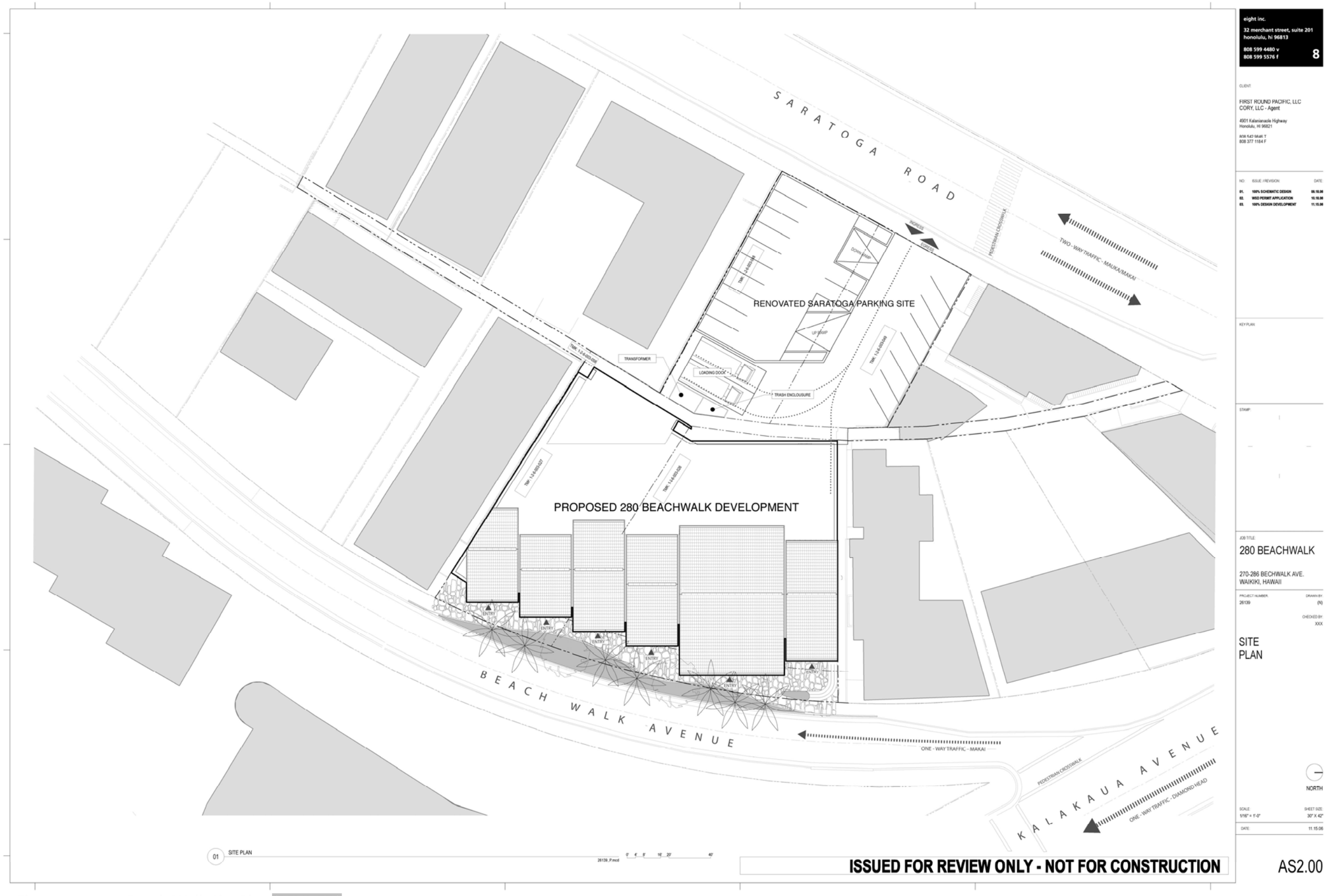


Figure 2-1 280 Beach Walk Site Plan (REVISED)

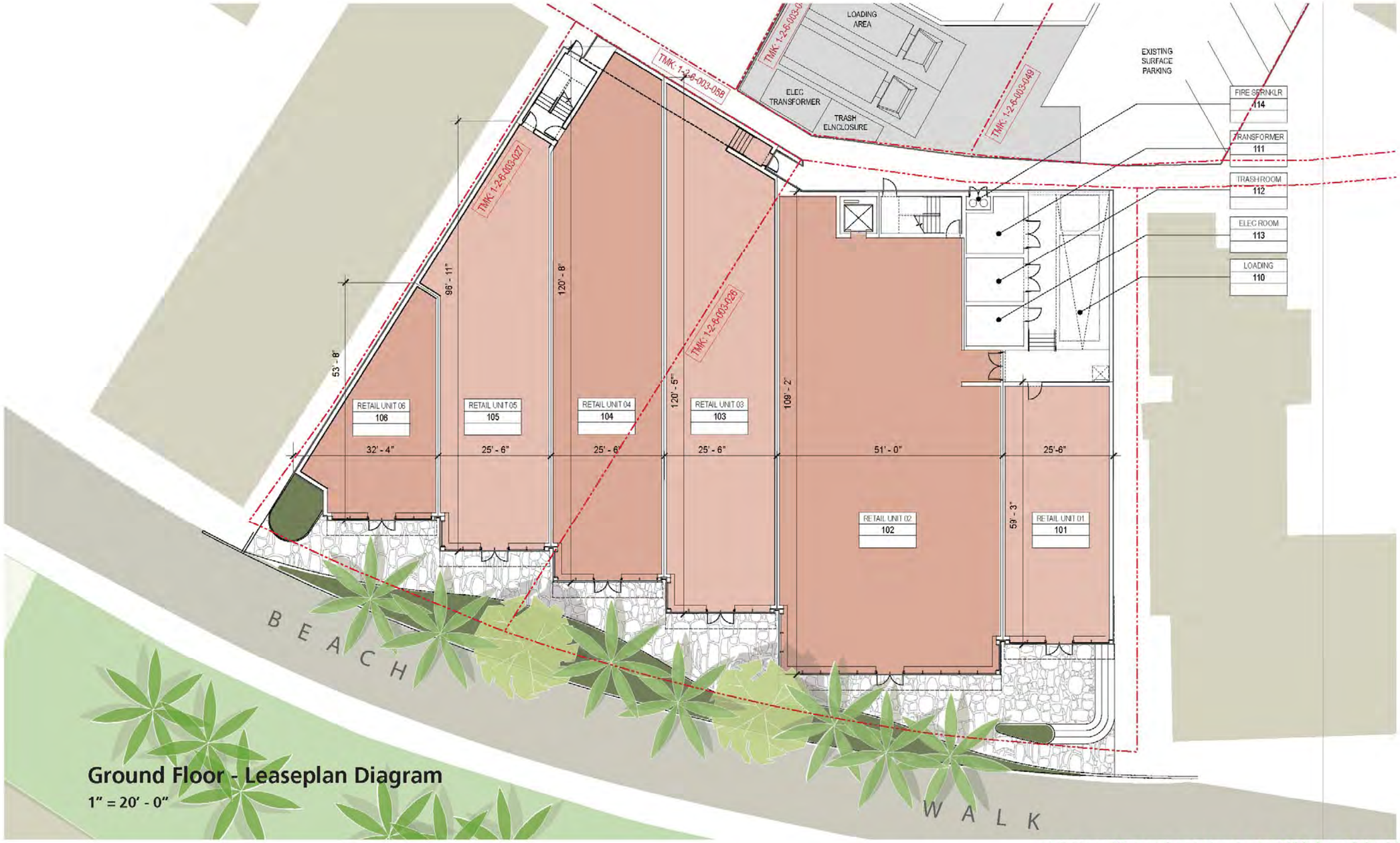


Figure 2-2 280 Beach Walk Ground Floor Plan (REVISED)

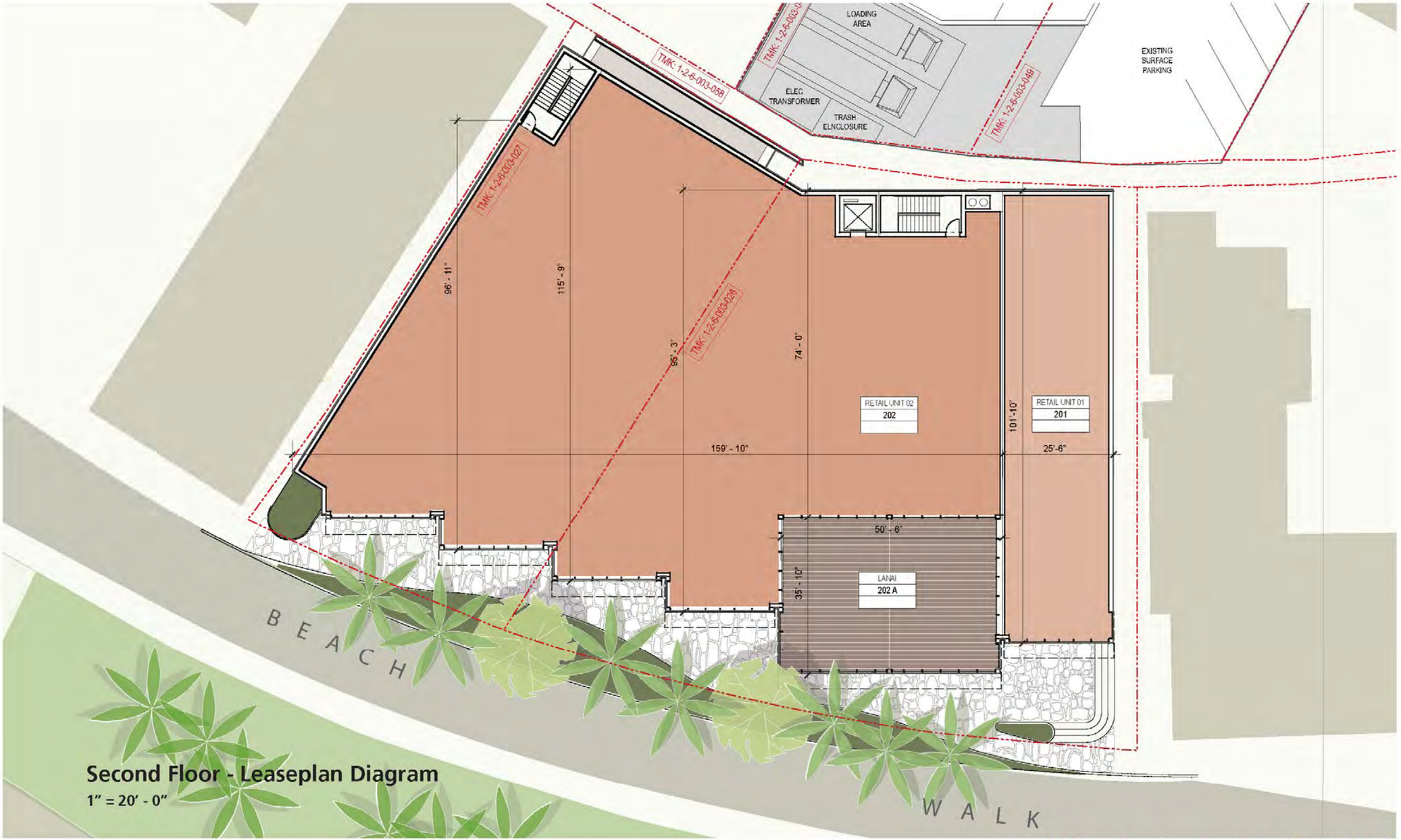


Figure 2-3 280 Beach Walk 2nd Floor Plan (REVISED)

Figure 2-4 280 Beach Walk Roof Diagram (REVISED)

Figure 2-5 280 Beach Walk Elevation Study- East Elevation View (REFORMATTED)

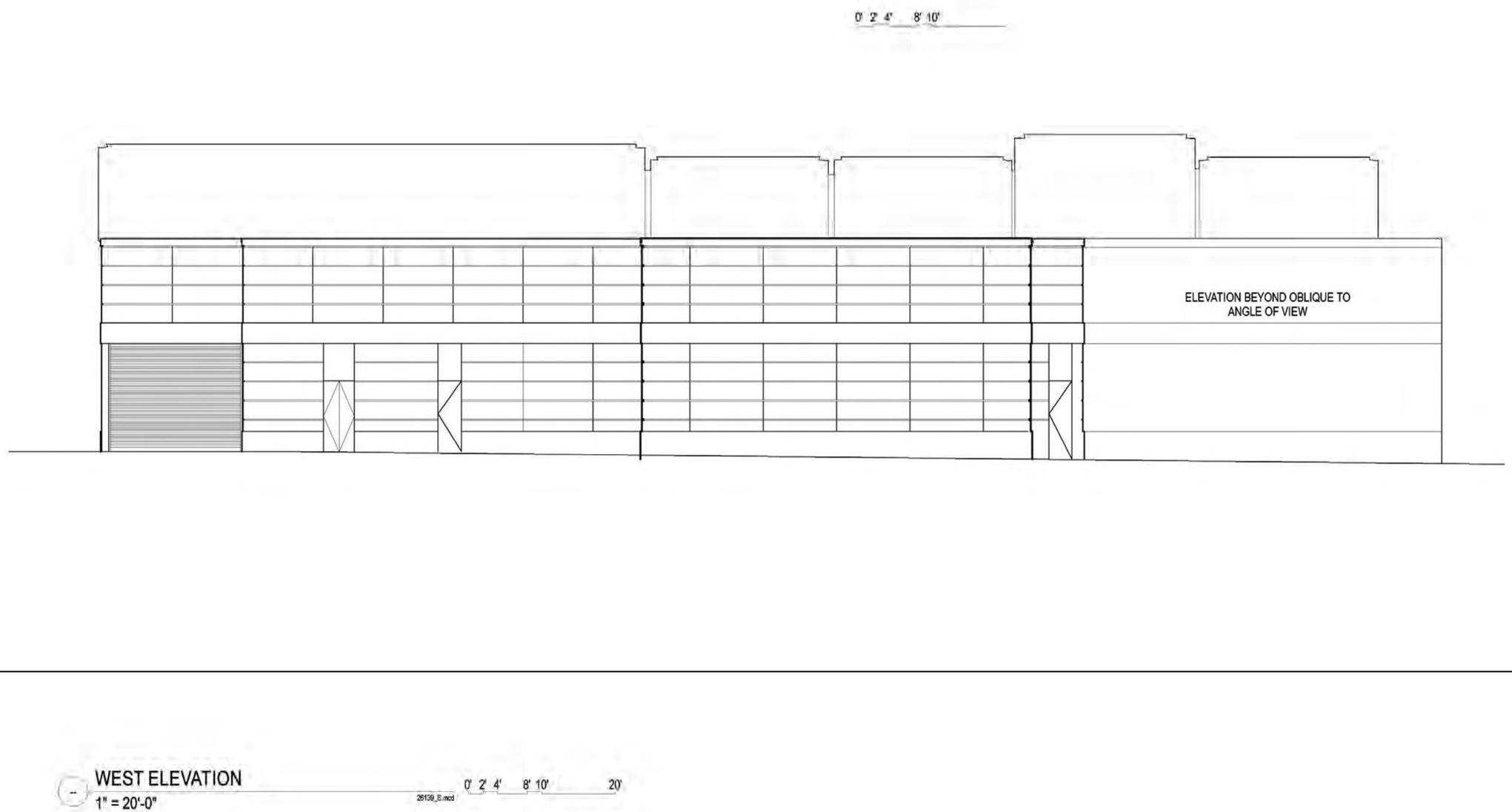


Figure 2-6 280 Beach Walk Elevation Study- West Elevation View (REFORMATTED)

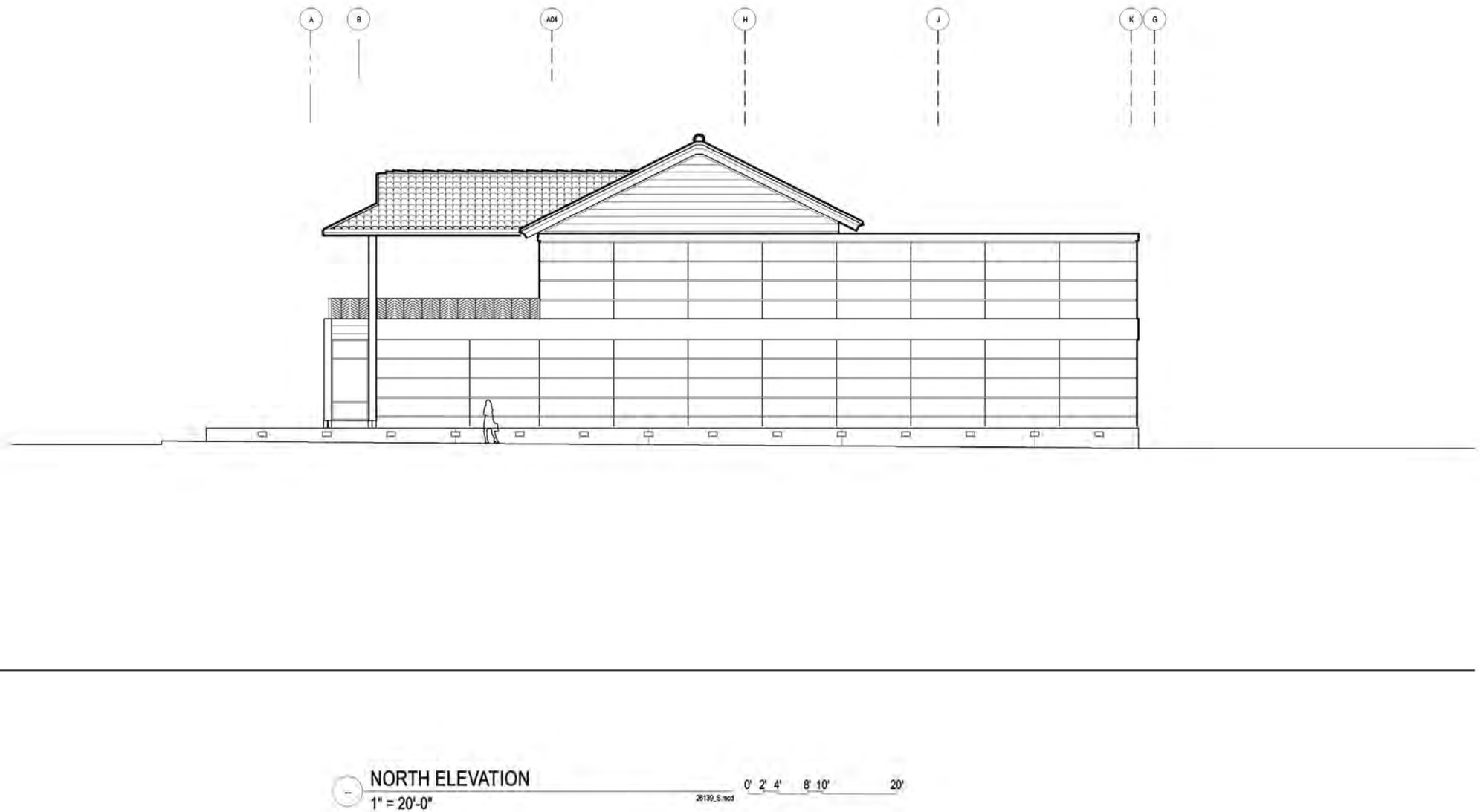


Figure 2-7 280 Beach Walk Elevation Study- North Elevation View (REFORMATTED)

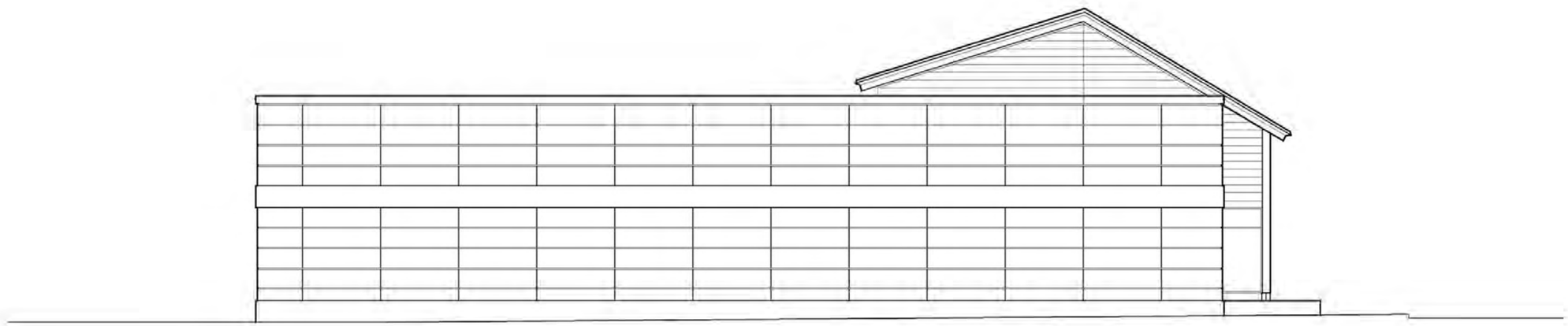


Figure 2-8 280 Beach Walk Elevation Study- South Elevation View (REFORMATTED)

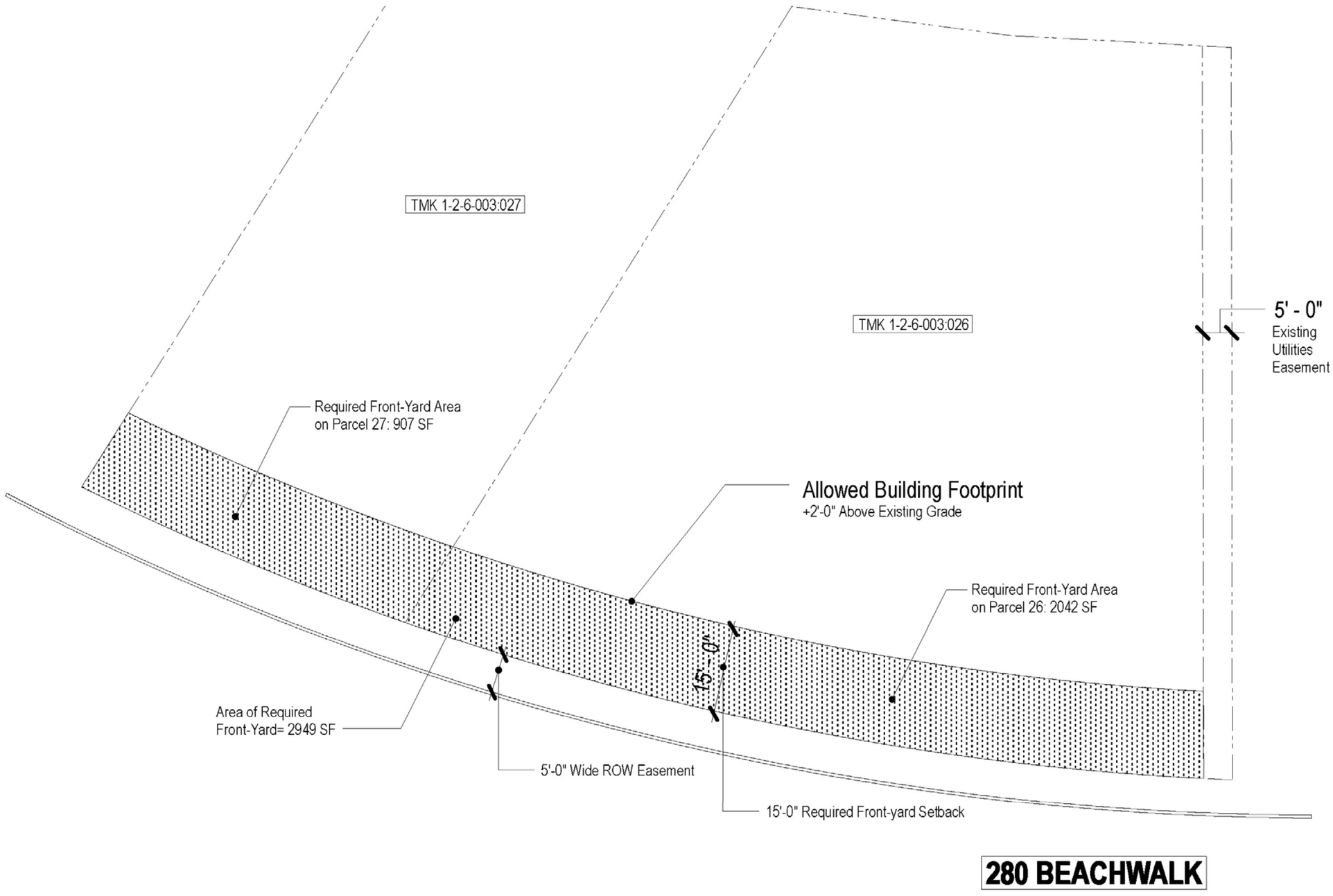


Figure 2-9 Required Front Yard and ROW Easement with Allowed Footprint (REVISED)

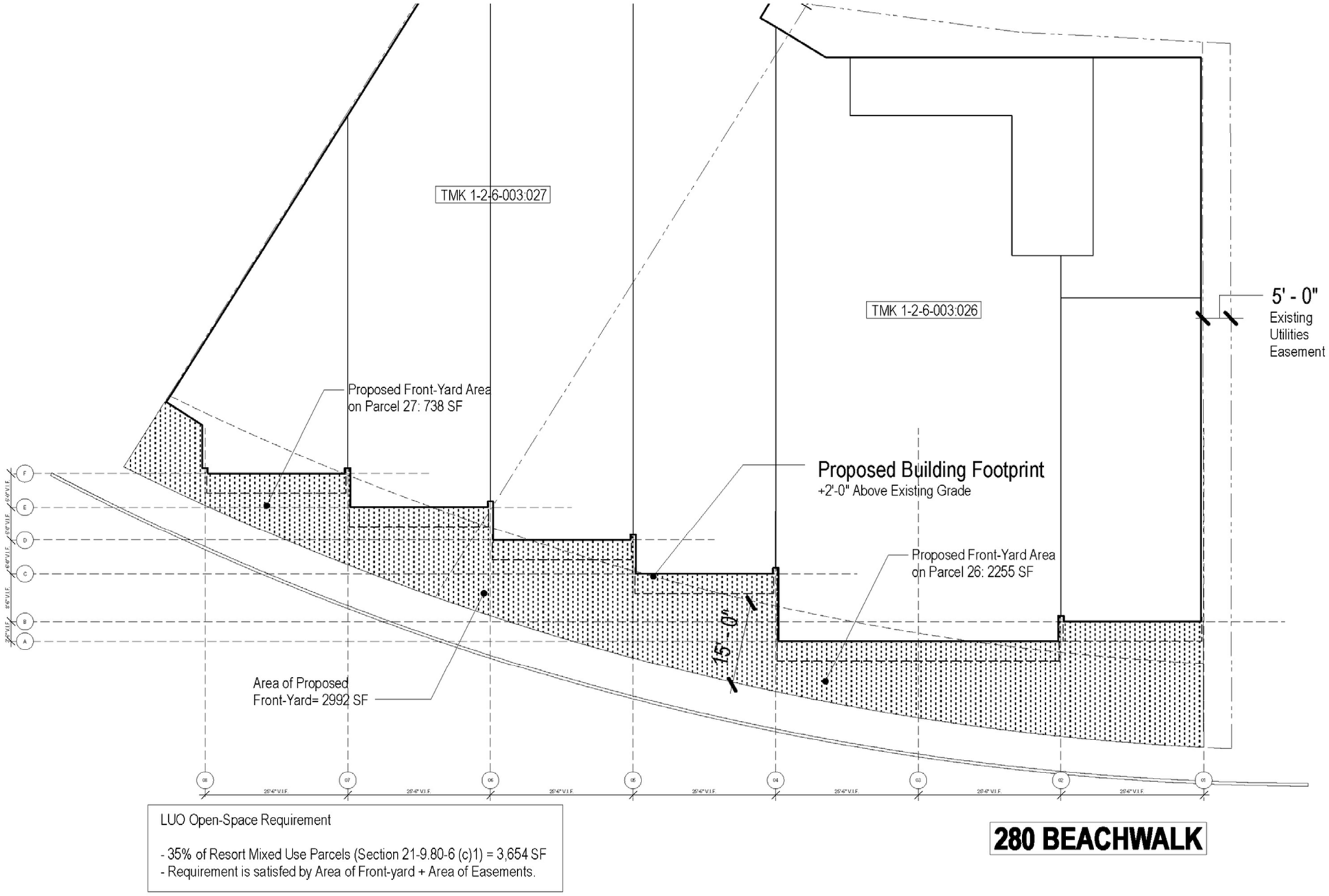


Figure 2-10 Proposed Building Footprint with Front Yard ~~and ROW Requirement~~ (REVISED)

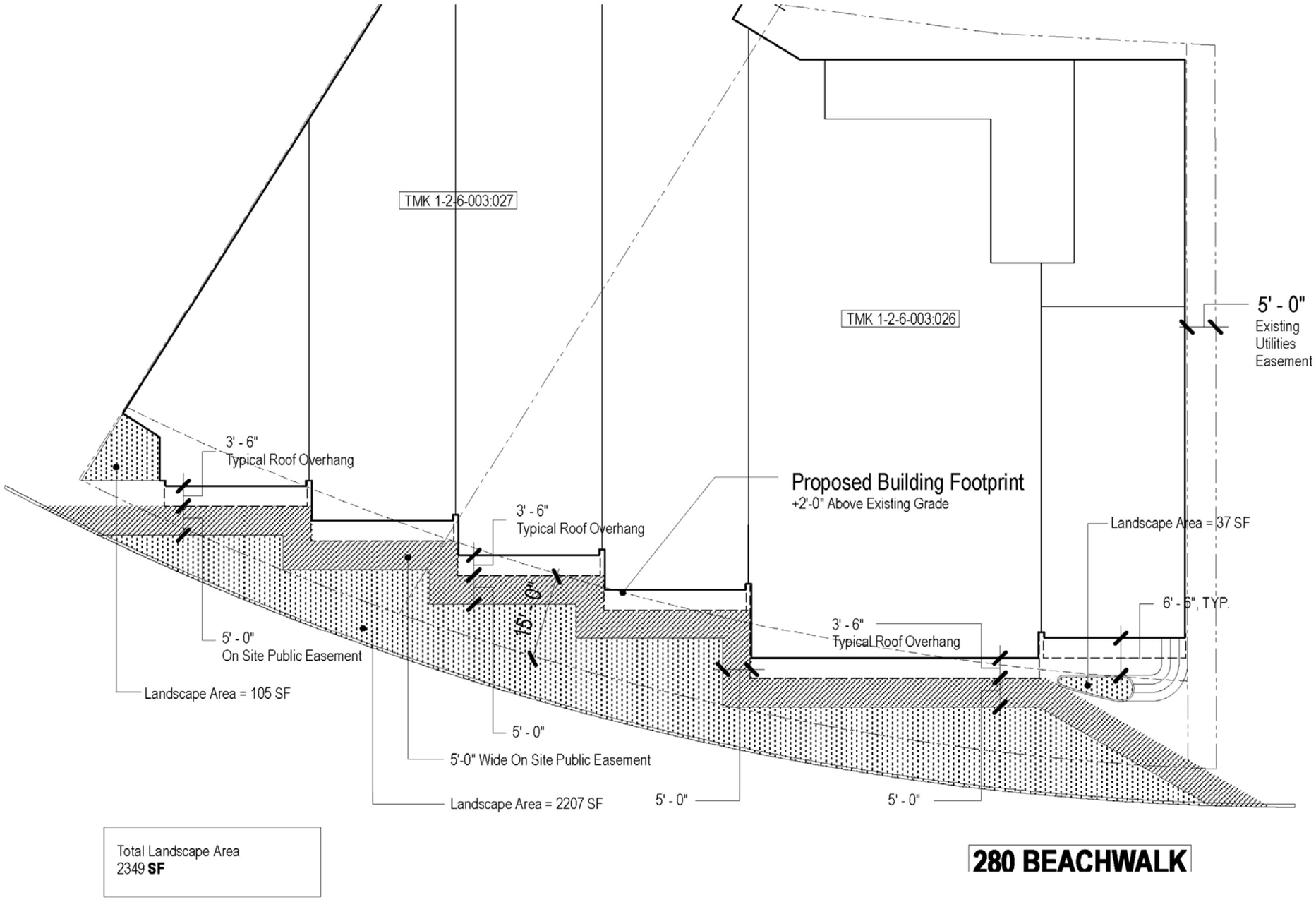


Figure 2-11 280 Beach Walk Proposed ~~Green~~ Landscaped Space & Transferred Public ROW (REVISED)

SECTION 3.0

Description of the Environmental Setting,
Potential Impacts, and Mitigation Measures

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes the existing environmental setting and identifies possible impacts of the proposed project. Strategies to mitigate those potential impacts are also identified.

3.1 CLIMATE

Existing Conditions

With an annual average temperature ranging from the high-60s to the mid-80s degrees Fahrenheit (F), Waikīkī has a relatively dry climate. The average monthly low temperature is 64 degrees F in January and the average monthly high temperature is 88 degrees F in August and September. Nestled in the leeward rain shadow of the Koʻolau Mountains, Waikīkī has an average annual rainfall of 25 inches with most of it occurring between the months of November through January.

Winds from the northeast, known as tradewinds, are the most predominant over the Hawaiian Islands. In the winter, there is a shift in the wind patterns characterized by the arrival of the westerlies and frontal influences from the North Temperate Zone becoming more prevalent. Westerly winds typically are characterized by the presence of strong winds and high wave activity from the southwestern sector of the Pacific. Overall, the annual average wind speed in Waikīkī ranges from 9-11 miles per hour.

Anticipated Impacts and Mitigation Measures

The proposed action will have no effect on climatic conditions, and therefore no mitigation measures are required.

3.2 GEOLOGY AND TOPOGRAPHY

Existing Conditions

The island of Oʻahu was created through several stages of activity emanating from two volcanic domes. Through various stages of eruptions, erosion and land movement, the volcanic forms became the Waiʻanae and Koʻolau mountain ranges. The development of these large land mass forms emerged together, forming the island and causing submergence to occur. The project area is located approximately 0.25 miles north of the coastline. The regional topography is relatively flat but does slope gently toward the ocean. Ground surface elevation at the property is less than 10 feet above mean sea level.

Anticipated Impacts and Mitigation Measures

No adverse impacts to the geological conditions, topography, or drainage capability are anticipated as a result of this project.

There will be some minor landscaping activity done to the area fronting the new building, which will have no substantial alteration to the overall existing topography of the project site. It is not anticipated that significant grading will be required. No substantial fill or excavation is being proposed for the project. Therefore, the geology and topography of the area will not be significantly impacted. Mitigation measures related to soils and grading are described in the next section.

3.3 SOILS

Existing Conditions

Waikīkī is situated upon a reef formation that extends from Kakaʻako to the base of Lēʻahi. Due to its location at the base of a once vast tributary system and in close proximity to Lēʻahi crater, an alluvial mantle on its coral foundation covered the area. As early as 1909, drilling data showed that there is a regular deposition of terrigeneous clay and limestone overlying a substrate layer of coral, coralline algae, and shells. Additionally, the soil contains volcanic ash, olivine, and other lava residue.

The project site sits on a thick coastal caprock formation, approximately 700 to 800 feet thick, comprised of marine (calcareous) sediments, some of which have been imported to fill marshes and other local depressions. According to the Oʻahu soil survey *(Figure 3-1)*, the project area and most of the Waikīkī coastline is underlain by Jaucus Sands (JaC), 0 to 15% slope. Soils within Jaucus Sands are characterized as well-drained calcareous soils developed from coral and seashells found on coastal plains near the ocean. The soil is single grain, pale brown to very pale brown, sandy, and more than 60 inches deep. Permeability is rapid and runoff is very slow. Additionally, most of the soil areas in the remaining makai portions of Waikīkī are indicated as Fill (FL).

Anticipated Impacts and Mitigation Measures

Based on geotechnical information derived from the investigated conditions on both the project site and adjacent properties, it is anticipated that a deep foundation system will be required for the proposed two-story building. The most viable option for this foundation system in Waikīkī would be the ~~use of driven pre-cast piles~~ 7 1/2 in diameter micropiles. The design team anticipates that the number of piles required for the massing of the project will be less than ~~90 piles~~ 93 piles up to a depth of 80 feet and should result in an installation period of only 4 weeks. ~~Because of the short duration time of pile installation, the use of this foundation system would not have prolonged noise or vibration impact on the surrounding neighborhood. Moreover, the new generation of quieter hydraulic impact hammer equipment would be used, instead of the traditional diesel hammer driver. The hydraulic hammer frame and the drive cap are designed for the environmental advantages of low impact noise, no exhaust gas, and less vibration. Buildings on the immediately adjacent properties would be physically surveyed for their pre-existing condition before the onset of pile operations, in order to expedite the resolution of any vibration-related concerns during construction. The subsurface geology of this site does not have an upper coral ledge, and so vibrations would not be generated by driving through such a shallow hard stratum, but the energy of driving would be transmitted deeper where vibration would be attenuated at depth.~~ These piles will be placed in holes drilled into the soil and grouted. Despite some cost premium for this type of system, the relatively small diameter of the piles will produce minimal displacement of materials to the surface, and there will be minimal noise and no impact induced vibrations. Due to the minimal associated environmental impact, this type of system has been most commonly used for low rise projects in the area in recent times. The micropiles would be interconnected by a series of pilecaps and grade beams. Fill is to be added to the site to increase the elevation of the building; therefore the pilecaps and grade beams would have minimal penetration into the existing grade. The slab-on-grade would be above grade. The grade beams will generally penetrate no more than 6" into the existing grade with the exception of small entry areas at the rear of the units and the loading dock area which would have foundations 1'-0" to 2'-9" below existing grade. In addition, perimeter grade beams would be up to 1'-3" below grade and there would be three elevator pits with foundations up to 5'-0" below grade.

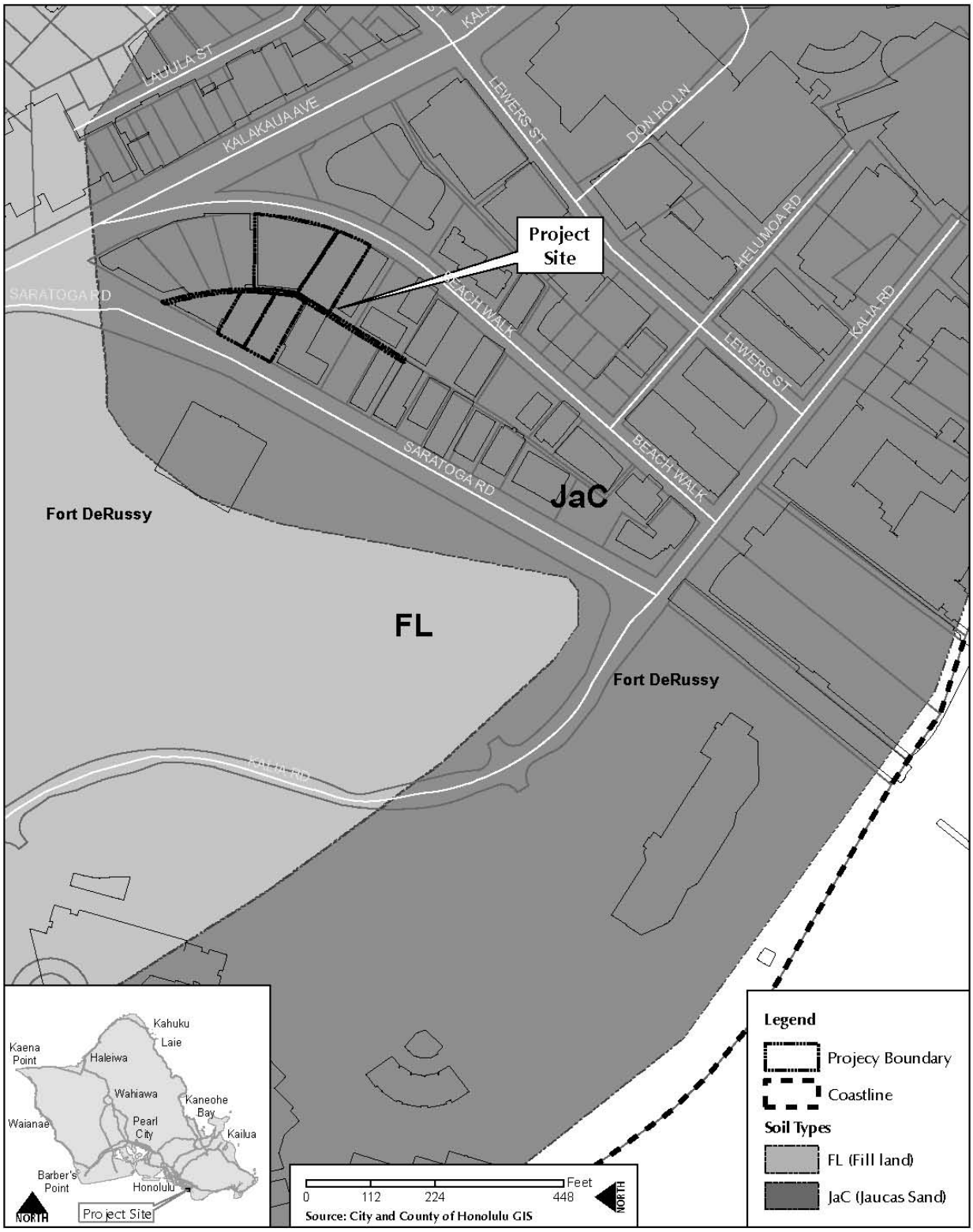


Figure 3-1 Soil Classifications

Other construction-related activities will conform to the "Rules Relating to Soil Erosion Standards and Guidelines," including strict erosion control and dust control measures. Primary fugitive dust control methods that will be implemented include regular watering of exposed soil areas, good housekeeping on the job site, and prompt landscaping, covering or paving of bare soils in areas where construction is completed. Siltation will be limited during construction through the use of silt fencing and sediment-absorbing devices. Once construction is complete, ground cover plantings, hardscape and other landscaping will be in place, effectively minimizing the soil loss. Any exposed on-site soils, whose permeability is high with slow runoff and slight erosion hazard, will absorb normal runoff events.

3.4 SURFACE AND GROUNDWATER RESOURCES & DRAINAGE

Existing Conditions

An assessment of existing surface and groundwater resources in the Lewers-Kālia-Beach Walk area was prepared in September 2001 by Tom Nance Water Resource Engineering for the Outrigger Waikīkī Beach Walk project. According to the study, basal groundwater does exist in the underlying calcareous sedimentary formation, which is on the order of 700 to 800 feet thick. Well tests conducted during the study indicated that the groundwater in the area is very saline, ranging from 70 to 95% seawater.

The Ala Wai Canal effectively intercepts all surface runoff from the watersheds inland of Waikīkī, so surface water is limited to locally generated rainfall runoff and is handled by the existing drainage system. Surface runoff from areas located mauka of the Outrigger property, including the 280 Beach Walk project site, will discharge into catch basins or manholes of the area's surface drainage system. There is an existing 24 inch drain line along Beach Walk. The single ocean outlet next to the Outrigger Reef on the Beach Hotel is the sole discharge point for both surface and groundwater in the area. Ocean waters off the makai outlet from the project site are designated as Class A waters. Beneficial uses of Class A waters are fishing, swimming, surfing, recreational water activities, aesthetic enjoyment, and beach going, which are all very popular in the area.

Anticipated Impacts and Mitigation Measures

The type of retail land use proposed by the project development will be comparable to previous land use development on the project site, other existing boutique-style retail outlets, and significantly smaller than the ongoing redevelopment efforts of adjacent projects. A proposed 12" drain line will connect to the existing catch basin fronting the project site.

Groundcover, which is expressed as impervious surfaces versus landscaped areas, will be modified. It is assumed that surface runoff would be equivalent to approximately 20 inches per year over the impervious surfaces of the project area based upon 80% of the annual rainfall experienced in the general Waikīkī area. The remaining 20% is presumed to be lost to direct evaporation generally and percolation in the landscaped areas of the project. The quantity of surface runoff would not be significant and as stated, all of the percolate will eventually be discharged into the surface drainage system. Best Management Practices such as silt fencing and siltation-reducing devices will be utilized, as necessary, to mitigate impacts during construction. The impact to shallow groundwater will occur in the landscaped area of the project. The quantity of percolate to groundwater is not significant and all of the percolate will eventually be discharged into the surface drainage system. No change in the quality of the general area's percolate is expected since landscaping activities will adhere to existing standards of practice.

3.5 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE HAZARDS

A Phase 1 Environmental Site Assessment and subsequent field investigation conducted in June 2006 and are included as *Appendix C*.

Existing Conditions

In June 2006, a Phase I Environmental Site Assessment (ESA) was conducted for the project to identify any possible recognized environmental conditions (RECs) in connection with the property. The term "REC" as defined by the American Society for Testing and Materials (ASTM) is the "presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The study was prepared in conformance with procedural guidelines provided in ASTM E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment.

Anticipated Impacts and Mitigation Measures

The assessment revealed no evidence of current or historic RECs in connection with the property. However, there is potential that soil located on the project site has been impacted from suspect asbestos containing material (ACM) and suspect lead-based paint (LBP), based upon a Phase 1 ESA prepared in 2003 for the demolition of the Hula Hut restaurant. Suspect ACM in the form of remnants of spray-on fireproofing, remnants of black mastic behind wall coverings, remnants of gypsum wall boards and associated joint compound, remnants of cementations panels with wire mesh backing, stucco plastering on the exterior, and remnants of plaster on the interior and exterior walls were observed in the Hula Hut restaurant. The recommendation at that time was to test suspect ACM and LBP areas. According to the study, it was unclear whether such tests were performed. A subsequent field investigation was conducted on June 23, 2006. Five surface soil samples were collected from random spots within parcels 026 and 027. The samples were then sent to two different laboratories to test for lead and asbestos content. Laboratory results indicated that lead was not detected in any of the five soil samples. However, the results revealed that asbestos was detected in one of the five soil samples. However, the concentration of asbestos from this one sample was less than 1 percent. According to EPA asbestos regulations, ACM are defined as materials or products which contain more than 1 percent. Therefore, this sample is not defined as a ACM. As a result of this additional testing, there is no recommendation for additional investigation or remediation related to lead or ACM in the soil.

3.6 NATURAL HAZARDS

Existing Conditions

The project site lies within the 100-year flood zone designated AO on the National Flood Insurance Rate Map (#15003C0370, revised September 30, 2004), as shown in *Figure 3-2*. Flooding in the AO designated zone is usually shallow and consists of sheet flow on sloping terrain with a base flood average of 1 to 3 feet. Within the project site, the AO flood zone has an average flood depth of 2 feet.

Hurricanes are tropical storms that attain a minimum speed of 74 mph. The general season for hurricanes is between the months of June to December. The movement pattern of these systems can be erratic and unpredictable. The major hazards posed by a hurricane include violent winds, torrential rainfall, flooding, storm surge, and high surf.

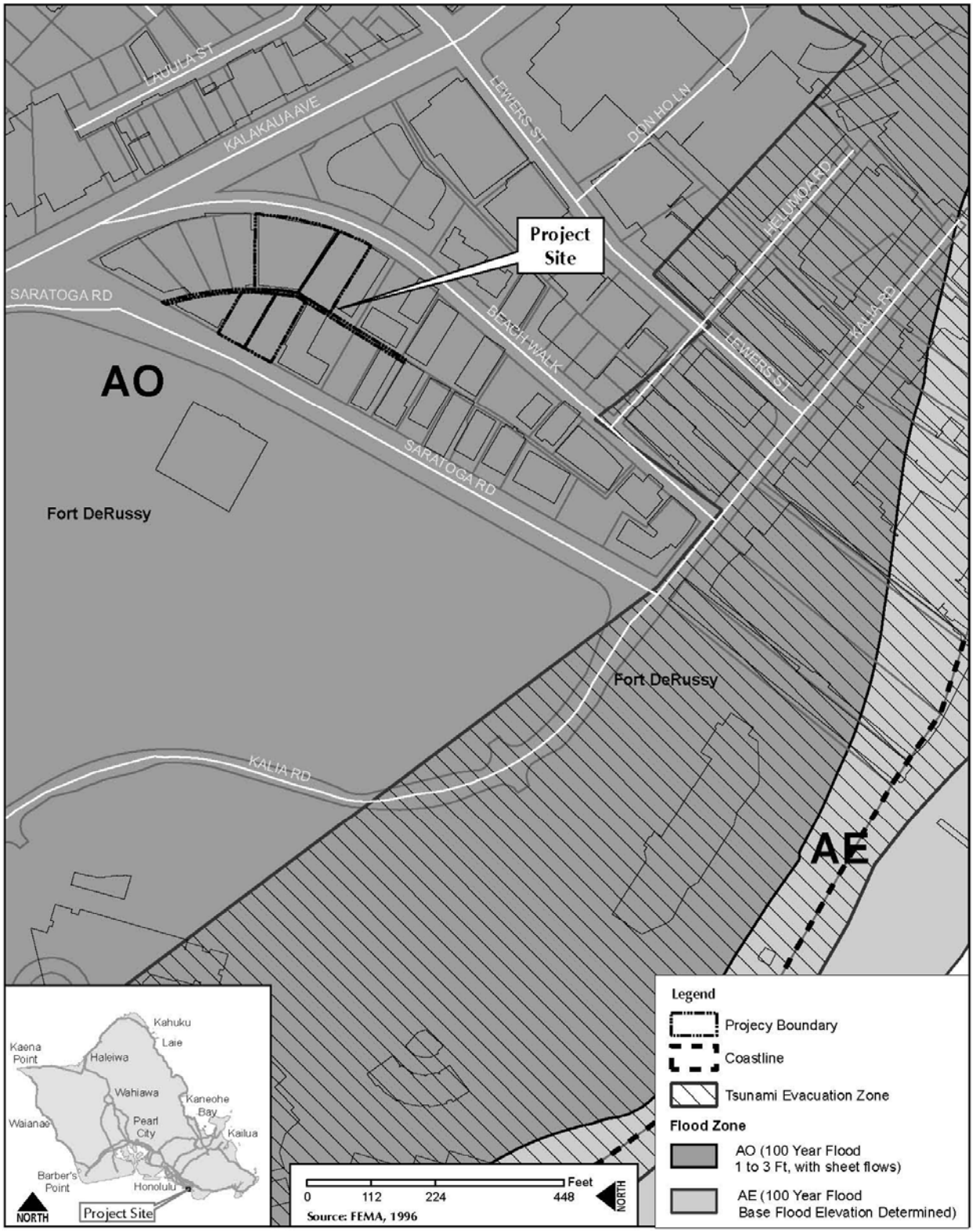


Figure 3-2 FIRM Classification and Tsunami Inundation Zone Map

The majority of earthquakes in Hawai'i are directly related to volcanic activity on the Island of Hawai'i. The entire City and County of Honolulu lies in a seismic zone designated as 2A. Under the United Building Code (UBC) seismic provisions, a Zone 2A area could experience seismic activity between .075 and .10 of the earth's gravitational acceleration (g-force).

In addition, the project site is located outside of the Tsunami Inundation Zone as demarcated on the maps for O'ahu *(Figure 3-2)*. Although having no bearing on the future potential of tsunami events and their impacts, historically, the south shore of O'ahu, including Waikīkī, has been affected only minimally by past tsunami events.

Anticipated Impacts and Mitigation Measures

In general, flood, tsunami and earthquake conditions impose no major constraints on the project. All development at the site will be required to meet applicable building code standards for habitable structures and will be in compliance with the UBC and the City & County of Honolulu standard earthquake design provisions. The proposed project area will be developed at a +2 foot elevation. The project will comply with flood hazard requirements in accordance with current State and City & County of Honolulu standards, including the flood hazard development standards iterated in ROH, 21-9.10 (parts 4-6).

Potential mitigative measures include ensuring that retail employees and restaurant management are properly trained in assisting guests with appropriate procedures at the issuance of a natural disaster emergency. The identified O'ahu Emergency Response Shelters closest to the project area are 'Ānuenue, Kāhala Elementary, Jefferson Elementary, McKinley High and Waikīkī Elementary Schools.

3.7 FLORA

Existing Conditions

The property currently includes a vacant gravel lot. The majority of the landscaping in the near vicinity is located at the Beach Walk Triangle Park to the east and the nearby Fort DeRussy area to the west. Within the general vicinity, numerous species of introduced, Native Hawaiian and Polynesian-introduced shrubs, groundcovers, trees and palms are present. None of these are rare or endangered.

Anticipated Impacts and Mitigation Measures

The majority of the current vegetation species adjacent to the project area are exotic to Hawai'i. The development of the proposed project will not result in any adverse impacts to native plant species that are endangered, rare, or threatened.

Planned landscaping includes a blend of native and introduced species including the possible use of coconut and plumeria trees, dwarf laua'e fern, and spider lilies. The specific selection of plants is constrained by known utility ducts under this portion of the property and will require additional discussion with the City and County of Honolulu Department of Planning and Permitting and the respective utility companies.

3.8 FAUNA

Existing Conditions

Terrestrial fauna on the site and within the near vicinity is limited to rats, mice, and feral cats. The identification of avifauna that flock or reside within the project area include the common mynah,

cardinals, pigeons, doves, house finches, rice birds, and mockingbirds. These are common birds found throughout the urban areas of Honolulu. There are no rare, threatened, or endangered species on the site.

However, it should be noted that the manuokū, or white terns (*Gygis alba*) are common in the Northwestern Hawaiian Islands, but in the main Hawaiian Islands they are found only on O'ahu, where they are listed as threatened by the State of Hawai'i. According to a 2003 study, the manuokū currently are found only along the southeastern coast of O'ahu, where they breed and roost exclusively in large trees. Some areas used by the manuokū on O'ahu include Kalākaua Avenue and Waikīkī. This urban area experiences heavy pedestrian and vehicular traffic virtually 24 hours a day, but according to the study this does not inhibit reproduction of the manuokū, and it is possible that vehicular traffic actually protects tern nests by preventing predators from reaching nest trees.

Anticipated Impacts and Mitigation Measures

There are no anticipated impacts to the area's vegetation and wildlife habitat. Although the manuokū are tolerant of people and noise, efforts should be made to minimize potential disturbances. Before conducting any work adjacent to any trees, the trees should be checked for nests or habitation to prevent any disruption. For instance, during the a nearby project, the demolition of the trees on the property was delayed until fledglings discovered during demolition preparation were able to fly away. During construction of the 280 Beach Walk project, similar actions of precaution will be implemented to ensure protection of known or discovered tern habitats in the project area.

3.9 COASTAL WATERS AND MARINE ECOLOGY

Existing Conditions

A study of ocean water quality and marine communities fronting the coastal region closest to the project area was conducted by Marine Research Consultants in September 2001 for the Outrigger Waikīkī Beach Walk Final EIS. According to this study, runoff from the mauka area of Waikīkī that encompasses the project site drains to the ocean through a box culvert with an outlet offshore of the beach (hereafter termed the "Outrigger Drain"). According to the study, the marine area off Waikīkī consists of a poorly defined embayment within Māmala Bay that extends from the Ala Wai Channel to the Kapahulu Groin area. The entire area has been altered substantially over the past decades, and was created from infilling of wetlands following the construction of the Ala Wai Canal.

Ocean Water Quality

Water quality parameters evaluated in the study included the nine specific criteria designated for open coastal waters in Chapter 11-54, Section 06 (Open Coastal Waters) of the Water Quality Standards, Department of Health, State of Hawai'i, as well as additional constituents. In 2001, sampling was conducted within a corridor, which was bounded at the west by Fort DeRussy Beach, to the east by the Halekūlani Sand Channel, and centered on the drainage culvert.

Results of the 2001 water chemistry assessment revealed that water quality throughout the area off Waikīkī is surprisingly good with respect to State of Hawai'i Water Quality Standards. Only a few samples had concentrations above the most stringent (i.e. dry) set of criteria. When the more lenient (wet) conditions (greater than 3 million gallons a day of freshwater are discharged) were applied, only one sample of NO_3 at the shoreline next to the box drain exceeded the water quality standards.

In March 2006, heavy rainfall caused an oversaturation of the ground, which resulted in a rupture of a 42-inch sewer main leading to a sewage spill into the Ala Wai Canal. Over 48 million gallons of sewage was deposited in the canal. The State Department of Health monitored the canal and outlying beach areas of Waikīkī. After 10 days, the beaches were reopened for public use.

Marine Biotic Community
The biotic community structure of the Waikīkī area is divided into two major zones. The inner zone, consisting of the region from the shoreline over the reef platform to the reef crest is primarily a sand and rubble-covered flat inhabited primarily by various species of algae. Reef corals, and most other epibenthic organisms, are sparse in the inner zone, primarily as a result of the continuous shifting of sand that is kept in motion by wave surge. The inner zone is the area that would be subjected to changes in water quality resulting from inputs from land.

The second major zone, which originates just seaward of the reef crest and extends seaward, is composed of a relatively flat "hardpan" limestone bottom. Because this zone is at depths below most of the destructive force of waves, and beyond the limits of sand scour, reef corals occur abundantly. As is typical on most coral reefs in Hawai'i, the most dominant corals are *Porites lobata* and *Pocillopora meandrina*.

Anticipated Impacts and Mitigation Measures
The project is not anticipated to cause adverse effects to the nearshore waters and marine life during construction and operation. The proposed redevelopment of the property has little potential to alter the marine environment situated 0.25 miles from the project site. Reasonable steps will be taken in construction practices and operational procedures to ensure that the project does not involve unforeseen delivery of chemical materials to the nearshore ocean waters. As such, there should be no adverse impacts to the marine environment. Best Management Practices will be implemented in the project's design, operation and maintenance.

3.10 AIR QUALITY

Existing Conditions
In Hawai'i, both Federal and State environmental health standards pertaining to outdoor air quality are generally met due to prevalent trade winds and the absence of major stationary sources of pollutant emissions. The State Department of Health, Clean Air Branch has been monitoring ambient air quality in the State of Hawai'i since 1957. In Waikīkī, the National Air Monitoring Station is located at 2131 Kalākaua Avenue. This station was established for the monitoring of carbon monoxide. Other monitors on the island of O'ahu are used to measure ambient air concentrations of the six criteria pollutants that the United States Environmental Protection Agency has promulgated National Ambient Air Quality Standards. The six criteria pollutants include: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter less than or equal to 10 micrometers (PM_{10}).

Anticipated Impacts and Mitigation Measures
Construction activities are expected to generate short-term impacts to air quality, primarily from fugitive dust emissions. Site preparation of the project area will include the use of construction equipment that may create particulate matter (PM) emissions. The impact of construction activities on air quality will be mitigated by conforming to strict dust control measures, particularly those specified in the Hawai'i Administrative Rules, Section 11-60.1-33 as related to fugitive dust; State Department of Health's (DOH) Water Quality Standards, Chapter 37-A, Public Health Regulations, 1968; and the U.S. Soil Conservation Service's Erosion and Sediment Control Guide for Hawai'i,

1968. These measures include soil wetting during grading activities, providing an adequate water source at the construction site prior to start up of activity, and use of dust fences adjacent to existing properties as appropriate to control fugitive dust emissions.

Short-term increases in vehicular emissions due to disruption of traffic by construction equipment mobilization will be alleviated by moving equipment and personnel to the site during off-peak traffic hours and coordinating with local police, as needed, for necessary traffic control and management around the immediate construction area.

3.11 NOISE

Existing Conditions

The primary noise sources in the project area are traffic noise levels associated with Kalākaua Avenue, Kālia Road, and Saratoga Road due to the large volumes of traffic and heavy vehicles such as trucks and buses on those major thoroughfares. Adding to the traffic noise from the roadways are the relatively high noise levels of tour buses idling at curbside, sirens on police and emergency vehicles, outdoor mechanical equipment such as fans and air conditioning equipment at commercial and resort buildings, maintenance activities, and garbage and delivery truck operations.

In Hawai'i, the State Department of Health (DOH) regulates noise from fixed mechanical equipment and construction activities. State DOH noise regulations are expressed in maximum allowable noise limits. Construction activities, which are typically noisier than the State DOH noise limits, are regulated through the issuance of permits allowing excessive construction noise during limited time periods.

Anticipated Impacts and Mitigation Measures

Unavoidable, but temporary, noise impacts may occur during the construction activities within the project area. Because construction activities are predicted to be audible within the project site and at adjoining properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Adverse public health and welfare impacts from construction noise are not anticipated due to the temporary nature of the work, the availability of closure and air conditioning for noise mitigation at the majority of the apartment, resort, and commercial units in the project area, and due to applicable administrative regulatory controls of construction noise.

Construction vehicles and activities must comply with State DOH Hawai'i Administrative Rules, Chapter 11-46, Community Noise Control. State DOH noise control regulations require a permit for construction activities that emit noise in excess of 95 decibels. Mitigation measures to minimize construction noise will include the use of mufflers to suppress loud equipment and limitations on the hours of heavy equipment operation as well as periodic monitoring of sound levels.

The proposed retail space and restaurant do not represent totally new activity centers for the project area. Risks of long-term adverse noise impacts from the proposed project are considered to be low and compliance with local noise regulations should be possible at these new establishments.

3.12 LAND USE

Existing Conditions

The urban core of Waikīkī is comprised of approximately 507 acres. The proposed 280 Beach Walk project site is located on a parcel adjacent to Kalākaua Avenue and along Beach Walk in the Waikīkī area. The surrounding area consists of resort hotels, timeshares, residences, and temporary visitor units with supporting commercial uses such as shops, restaurants, and entertainment venues. The project area, comprised of 0.81 acres, is located in the middle of the urban core, a former self-sufficient agricultural community that has been transformed into a global resort destination.

Development patterns on O'ahu are set by State Land Use District designations, the City and County of Honolulu General Plan, City and County of Honolulu Primary Urban Center Development Plan and zoning district designations. The principal function of these plans and regulations is to specify where land uses such as commercial, residential, industrial, agricultural, open and public areas are permitted. The existing land use designations are briefly summarized below.

- State Land Use Designation - The proposed site is situated within the State Land Use Urban District *(Figure 3-3)*. According to the Land Study Bureau Detailed Land Classifications, the area has been classified for "Urban" type uses.

- City and County of Honolulu Zoning - The subject property is located within the Resort Mixed Use Precinct and Resort Commercial Precinct of the Waikīkī Special District (WSD) as defined by the City and County of Honolulu's Land Use Ordinance *(Figure 3-3)*. The project area is within the 300' height restriction zone of the WSD *(Figure 3-4)*.

- City and County of Honolulu's Primary Urban Center Development Plan - The City and County of Honolulu's Primary Urban Center Development Plan (PUCDP) approved by the community and City Council in 2004, designates the project area as ~~Resort~~ District Commercial *(Figure 3-5)*. District Commercial areas, refer to a wide variety of commercial uses and related activities intended to serve district, regional, or islandwide populations. Uses typically include major office buildings, shopping centers, professional and business services, municipal services, and commercial activities located along major streets.

Anticipated Impacts and Mitigation Measures

The project site is situated in the middle of the urban core, a former self-sufficient agricultural and aquacultural community that has been transformed into a global resort destination. Given previous and existing uses at the project site, the proposed improvements are not considered to be significant.

- State Land Use Designation – The proposed project is situated within the urban district and the proposed project is classified as an "Urban" type use.

- City and County of Honolulu Zoning – This action is consistent with the Resort Mixed Use and Resort Commercial Precincts of the Waikīkī Special District.

- City and County of Honolulu's Primary Urban Center Development Plan –This action is consistent with the County and community's long range plan for the area.

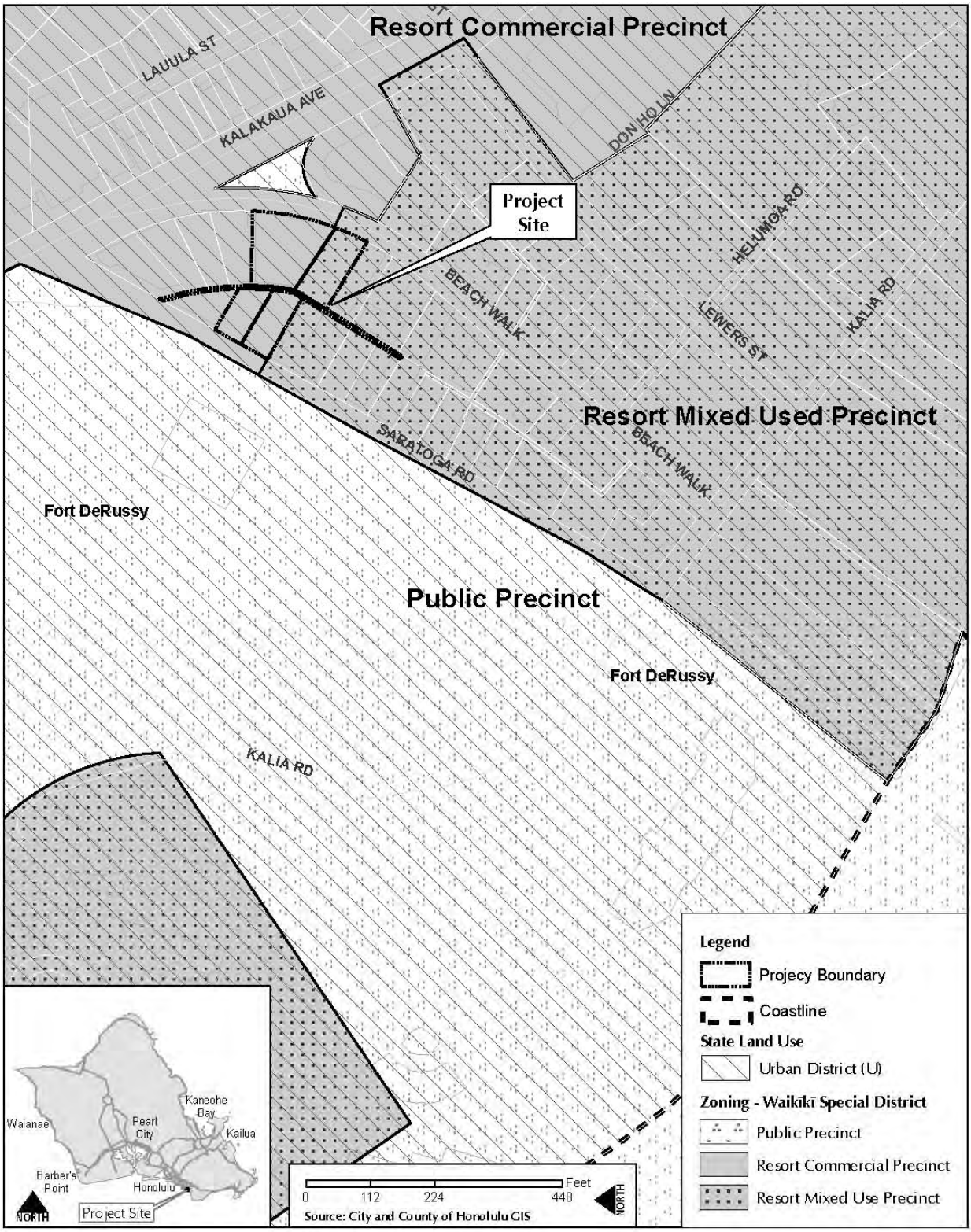


Figure 3-3 State Land Use Designation and County Zoning

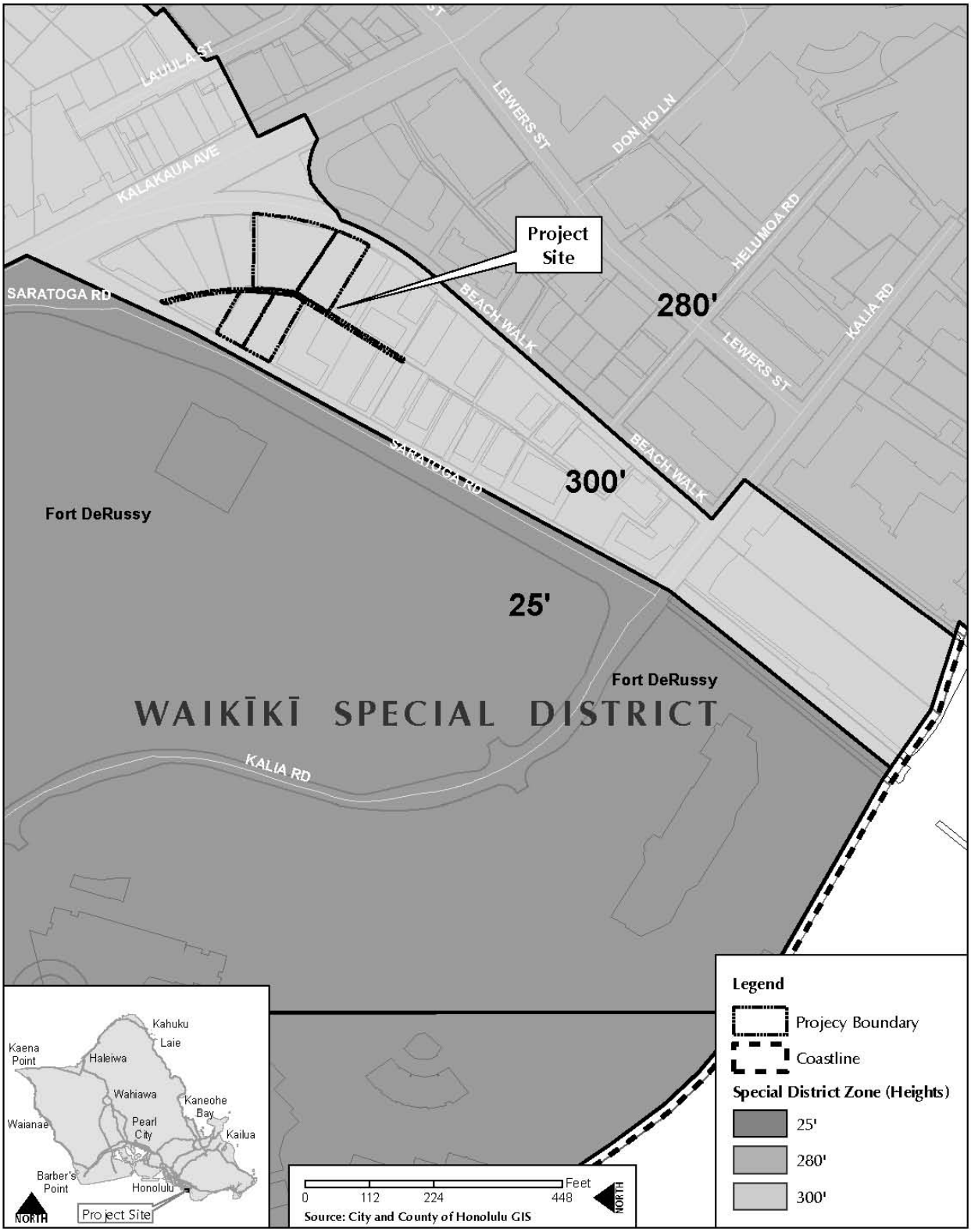


Figure 3-4 Waikīkī Special District Building Height Restrictions

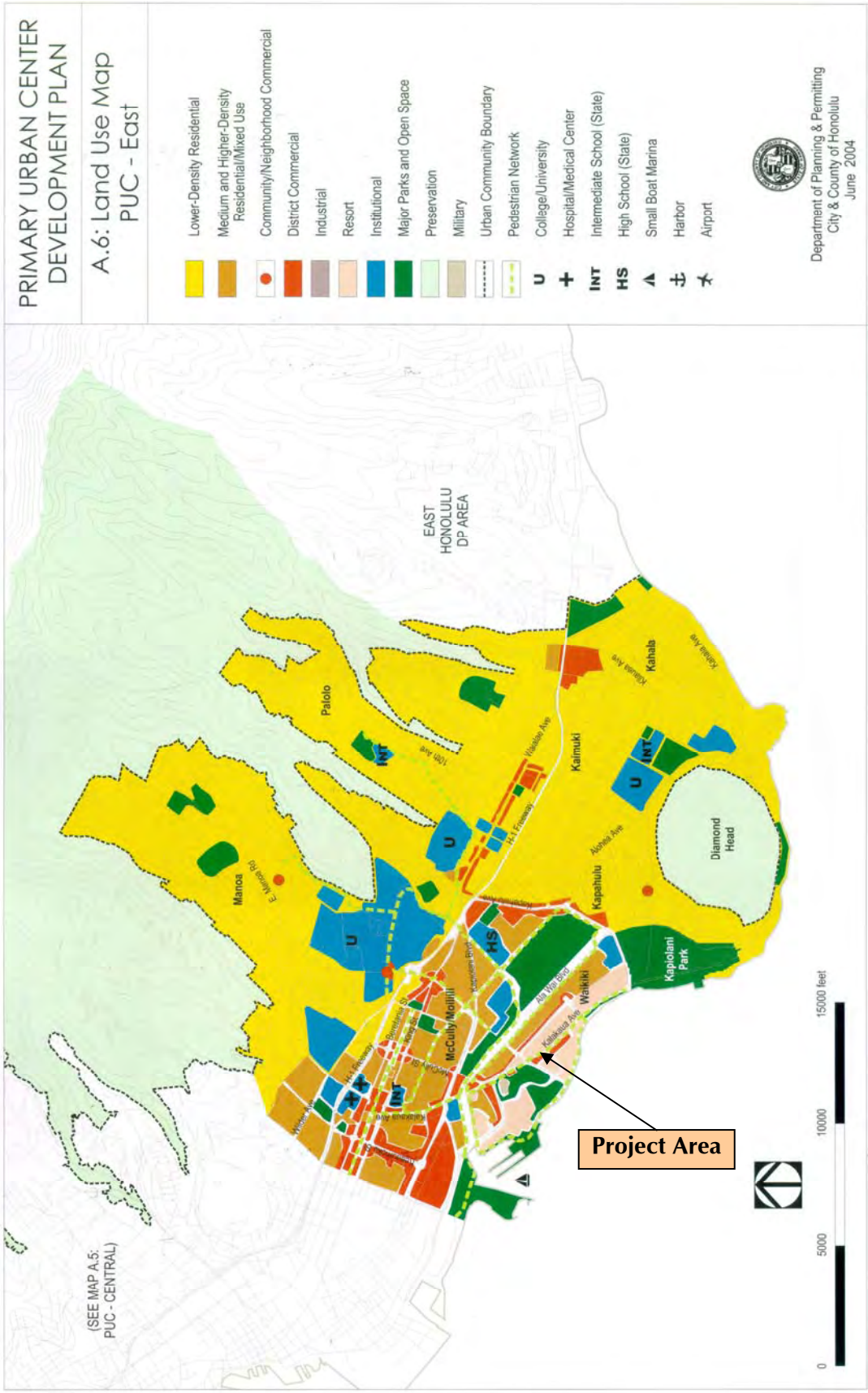


Figure 3-5 City and County of Honolulu Primary Urban Center Development Plan

3.13 ROADWAYS AND TRAFFIC

A Traffic Impact Report (February 2007) was prepared by Wilson Okamoto Corporation and is included as *Appendix D*.

Existing Conditions

The existing roadways in the vicinity of the project area are owned by the City and County of Honolulu and maintained by its Department of Facilities Maintenance. Regional access to the project site is provided by the Lunalilo Freeway (H-1) via Kapiʻolani Boulevard, McCully Street, and Kapahulu Avenue. Additional regional access is provided by several major arterial streets including Ala Moana Boulevard and Kalākaua Avenue. Direct access to the project site is provided via Beach Walk and Saratoga Avenue. Parking is currently available from the Saratoga entrance.

Brief descriptions of the principal and adjacent streets serving access to or near vicinity of the project site are included below.

- Kalākaua Avenue – Kalākaua Avenue is a east-west major arterial. Between Ena Road and McCully Street, it provides four travel lanes eastbound and two travel lanes westbound. Between McCully Street and Royal Hawaiian, it operates as a one-way eastbound street with four travel lanes, except for one transit lane going west from Kuamoʻo Street to McCully Street.
- Beach Walk – Beach Walk is a one-lane, one-way collector street that runs south from Kalākaua Avenue to Kālia Road. No parking is allowed on the west side, but metered parking is allowed on the east side between Kalākaua Avenue and Waikīkī Royal.
- Saratoga Road – Saratoga Road is generally a two-lane, two-way roadway. At Kalākaua Avenue, Saratoga become Kalaimoku Street, a two-lane, one-way roadway that serves as the northbound couplet system between Kalākaua Avenue and Ala Wai Boulevard.
- Lewers Street- Lewers Street is a north-south local street from Ala Wai Boulevard to Kālia Road. North of Kalākaua Avenue, it provides one travel lane that runs one-way northbound with parking allowed on the west side, and a freight loading zone only on the east side. Between Kalākaua Avenue and Don Ho Lane, there is one travel lane northbound and 2 travel lanes southbound with no parking anytime on either side. South of Don Ho Lane, it provides one travel lane that runs one-way southbound with tour buses only on the west side and no parking on the east side.
- Kālia Road – Kālia Road is a two-lane, two-way roadway east of Lewers Street and converts to a two-lane, one-way (westbound) roadway between Lewers and Saratoga Road. Just west of Saratoga Road, Kālia Road becomes a predominantly two-lane, two-way roadway until its terminus at Ala Moana Boulevard.

Operational conditions at an intersection are expressed as a qualitative measure known as level of service (LOS). The LOS is determined by factors of speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. Letter designations ranging from ‘A’ to ‘F’ are used as a rating system with LOS A-C considered as satisfactory levels. LOS D is considered to be the minimum satisfactory level. LOS E is an undesirable condition with LOS F being an unacceptable level. The City and County of Honolulu has established LOS D as the minimum acceptable level of service for its intersections.

Anticipated Impacts and Mitigation Measures
The study evaluated a projection of year 2010 with and without the proposed 280 Beach Walk. The traffic study based its calculations for a restaurant area of up to 22,000 SF, as compared to the proposed use of 12,810 SF as described in *Section 2.0* of this document.

Under Year 2010 conditions without the project, traffic operations in the project vicinity were expected to deteriorate from existing conditions during the weekday afternoon and Saturday evening peak periods due to the development of other projects in the vicinity. To assess potential traffic conditions in year 2010 with the proposed 280 Beach Walk, it was assumed based upon limitation of parking, high volumes of pedestrian traffic, and a high density of attractive destinations, that 40% of all generated trips by the proposed development are conservatively assumed to represent pedestrian activity.

Under 2010 conditions with the 280 Beach Walk development, traffic operations in the vicinity are generally expected to remain similar to without project conditions during the weekday afternoon and Saturday evening peak periods with two exceptions. The first exception is the northbound right-turn traffic movement during Saturday evenings at the intersection of Kalākaua Avenue and Saratoga Avenue. The LOS is anticipated to drop from a "B'-level condition without the project to a "C' condition with the project. Similarly, the eastbound left-turn and through traffic movement at the intersection of Kālia Road and Saratoga Road is anticipated to operate at slightly lower levels of service during both peak periods.

Based upon the analysis of traffic data, the following are recommendations with project implementation:

- Maintain sufficient driveway width to accommodate safe vehicle ingress and egress.
- Maintain adequate turning radii at all project driveways to avoid or minimize vehicle encroachments to oncoming traffic lanes.
- Maintain adequate sight distances for motorists to safely enter and exit all project driveways.
- Maintain adequate on-site loading and off-loading service areas and prohibit off-site loading operations.

3.14 UTILITIES

3.14.1 Electrical and Communications
Electrical service for the project area is provided by Hawaiian Electric Company (HECO) which operates an integrated system of power generators and transmission facilities. Power for Waikīkī is distributed primarily from HECO's Pūkele Substation in Pālolo Valley. In the vicinity of the project area, HECO maintains a grid of underground transmission lines consisting of 3-inch conduits. Telephone service in the project area is provided by Hawaiian Telcom. Oceanic Cable, Inc. provides cable TV to the project area by underground coaxial cables along Beach Walk and Saratoga Road.

Anticipated Impacts and Mitigation Measures
The proposed improvements will slightly increase the electrical power demand above existing levels. As a public utility, HECO has a regulatory obligation as well as an economic interest in providing reliable electrical power to its customers. By initiating early consultation with HECO, any necessary accommodations in the vicinity of the project area can be made to service the

proposed project. Such consultation is ongoing and will continue through the Waikīkī Special District (Major) Use permit application process.

Any necessary off-site improvements required to provide communication services without compromising the quality and reliability of service to their existing customers would be the responsibility of Hawaiian Telcom, and Oceanic Cable, respectively. Required project connections to the communication service systems will be coordinated with the respective service providers to minimize any potential disruption of service in adjacent areas and to ensure that the placement of conduits and pullboxes are sited appropriately within the project area.

3.14.2 Water

Water service for the project area is provided by the City and County of Honolulu Board of Water Supply (BWS). Existing waterlines in the vicinity of the project area are interconnected, thereby increasing service reliability by providing alternate routes for flows to reach users and to stabilize water pressure during periods of heavy usage. Major service lines in the vicinity of the project area include a 12-inch water main along Kālia Road with connections to the 12-inch main along Lewers Street, an 8-inch waterline along Beach Walk and a 6-inch waterline along Saratoga Road. Fire protection is provided by fire hydrants located within the sidewalk area of the roads adjacent to the project site.

Anticipated Impacts and Mitigation Measures

The primary project generator of water demand for domestic consumption will be the restaurant. Water conservation practices will be applied to the project site for landscaping irrigation. The proposed domestic waterline will be 2-½ inches. The proposed waterline connection for fire protection will be a 6-inch waterline.

Hydrant spacing adjacent to the project site currently also meets the minimum spacing standard of 250 feet, and no relocations or new fire hydrants will be required. The project architect will coordinate with the Fire Prevention Bureau of the Honolulu Fire Department during the project's design development phase in order to ensure that all necessary improvements to meet on-site fire protection requirements will be included in the project.

Based upon the projection of a 400-seat restaurant and 19,000 SF of retail space, the estimated water demand from the 280 Beach Walk project is 260 fixture units at 102 gallons per minute. In consultation with the Board of Water Supply (BWS), the existing water system is adequate to accommodate the proposed development. However, the final decision on water availability will be confirmed by BWS when the building permit application is submitted for approval.

3.14.3 Wastewater Disposal

The sanitary sewer system serving Waikīkī is owned by the City and County of Honolulu and maintained by its Department of Environmental Services. Wastewater collected by the sanitary sewer system is conveyed to the City's Sand Island Wastewater Treatment Plant (WWTP) which serves the Honolulu area from Kuliʻouʻou to Moanalua and is designed to treat an average flow of 82 million gallons per day (mgd). The major sanitary sewer-lines collecting wastewater generated in the project area convey flows in the mauka direction to the Beach Walk Wastewater Pump Station (WWPS) which is located on Kūhiō Avenue in a lot south of Kaiʻolu Street and Kūhiō Avenue. The Beach Walk WWPS is designed to handle an average daily flow of 15.7 mgd.

In March 2006, a significant break occurred with one of the main sewer lines under Kaiʻolu Street and resulted in 48 million gallons of raw sewage being dumped into the Ala Wai Canal. The City's

response to this break was the implementation of the Beach Walk Wastewater Emergency Bypass Project. The bypass generally parallels the existing 42-inch force main and is designed to serve as a temporary line to prevent future diversions of wastewater into the Waikīkī area until the permanent force main is constructed. The existing sewer line for the property is located along the rear of the project site in the utility corridor. The proposed ~~4″~~ 6″ sewer line lateral will connect to the existing manhole.

Anticipated Impacts and Mitigation Measures

Wastewater volumes generated by the proposed project will be comparable to the volume of domestic water consumed, with relatively minor losses to landscape irrigation and evaporation. The projected sewer demand is 472 Drainage Fixture Units. Design of sewer connections and mitigation of surcharged conditions of existing sewer lines require detailed field investigation and survey. An Application of Sewer Connection for the project was filed with the Department of Planning and Permitting and was approved with conditions.

3.14.4 Gas

The Gas Company (GASCO INC) owns existing gas lines in the project vicinity.

Anticipated Impacts and Mitigation Measures

Gas service for the proposed project will be provided by GASCO. Any necessary off-site improvements required to provide this service without compromising the quality and reliability of service to its existing customers would be the responsibility of GASCO. Required project connections to service lines will be coordinated with GASCO to minimize any potential disruption of service in adjacent areas.

3.14.5 Solid Waste Disposal

The proposed development is expected to generate primarily light, dry waste in items such as cardboard, papers, packaging, and other materials associated with the shipping and storage of retail and restaurant goods. Wet waste will result from restaurant activity and employee consumption of beverages and general hygiene practices. Building common trash containers will be located adjacent to the loading dock bay. Collection of this refuse will occur according to the standard operating procedures and schedule of the Department of Environmental Services Refuse Division. Refuse employees will have access to the site and trash room by means of the easement granted on parcel 049. A responsible recycling program will be encouraged by the provision of separate containers designated for specific types of waste.

3.15 PUBLIC SAFETY SERVICES

3.15.1 Police

The Waikīkī region comprises District 6, as designated by the City and County of Honolulu Police Department. District 6 extends from the eastward slopes of Diamond Head through the Waikiki Peninsula, ending at Atkinson Drive and includes 12 beats, from Beat 650 to 662. However, this district is not managed by sectors but by internal organizations, each designed to assist a specific group or community within Waikīkī and include the following: Residential, Business, Beaches and Parks, Special Events, Hotels, and Outside Agencies. There is a police substation located at 2405 Kalākaua Avenue.

3.15.2 Fire

The Waikīkī region is in the 2nd Battalion area designated by the Honolulu Fire Department. The region is served by three fire stations as follows:

- Station 2: The Pāwaʻa Fire Station is located at Makaloa Street near Don Quijote (formerly known as Daiei Holiday Mart). It has a ladder and engine company, as well as a rescue company.
- Station 7: The Waikīkī Fire Station is located at the corner of Kapahulu Avenue and Paki Street. It has a ladder and engine company.
- Station 29: The Mōʻiliʻili Fire Station is located on Date Street, between University Avenue and Kapiʻolani Boulevard. It has a ladder and engine company.

First response for medical and fire emergencies at the project site and the surrounding area is provided by Station 2, the Pāwaʻa Fire Station. In the event of a first response or alarm fire, Station 2 would send a ladder and engine company. Stations 7 and 29 would both send engine companies. If the fire is on the sixth or a higher story, this would constitute a second alarm fire, and an additional ladder company and two engine companies would respond.

At Station 2, there are 15 firefighters present in each of the three shifts. The medical responses at this station outnumber those at other stations. When available, ladder companies are the first to respond to medical calls. HFD works with the Emergency Medical Services, or EMS, who dispatches the closest available unit. This may be either an EMS ambulance or a fire company and depends on the type of emergency and location. Since there are only 16 EMS stations on Oʻahu, fire companies are frequently the first responder. It is estimated that Station 2 averages one response per shift. Depending on the traffic, it takes about five to eight minutes to reach the project area.

3.15.3 Emergency Medical Services

The Honolulu Emergency Services Department (EMS) is responsible for providing the following an efficient, effective and economical operation of the pre-hospital emergency medical care and emergency ambulance service; a comprehensive aquatic safety program at City beach parks, including lifeguard services; injury prevention, public education and public health programs; and coordination with other agencies and jurisdictions.

The EMS has 18 Advanced Life Support Ambulance vehicles and two Rapid Response Paramedic vehicles in Honolulu and maintains a staff of over 200 trained personnel. In an emergency response, either EMS personnel or the nearest fire station is notified as part of a co-response agreement with other emergency responders. Average response time depending on the nature of the call is 4-15 minutes. Waikīkī is covered primarily by an EMS unit at Fire Station 7 at the corner of Kapahulu Avenue and Paki Street and, secondarily, by an EMS unit located at Young Street and Kalākaua Avenue.

Anticipated Impacts and Mitigation Measures

The proposed project would increase the on-site population of employees and visitors by adding more retail and dining options in the area. The slight increase in population will require additional security and police protection services. As needed, private security could be utilized to lessen the need for public police protection. Design measures will ensure that public spaces are well-lit and visible as to deter the potential for crime-related opportunities. Similarly, the project would impact fire protection and medical emergency services with a slight increase in the de facto population of the immediate vicinity through the provision of additional retail and dining services. Design measures for the building will meet supply standards for hydrant spacing, fire flow, and other relevant building code requirements. Staff training initiated by retail and dining vendors will also provide an additional measure of safety and emergency response preparation.

3.16 SOCIO-ECONOMIC CHARACTERISTICS

Existing Conditions

The project site is located in the middle of the urban core of a global resort destination consisting of resort hotels, timeshares, and temporary visitor units with supporting commercial uses such as shops, restaurants, and entertainment venues. In 2000, an estimated 19,720 persons resided in Waikīkī. According to the State Department of Business, Economic Development, and Tourism 2005 Data Book, an average of 71,756 visitors are present in Waikīkī on a daily basis, resulting in a de facto population of 91,476 persons.

Waikīkī has been and continues to be a major economic force for the City and County of Honolulu and the State as a whole. According to the State Department of Business, Economic Development, and Tourism Visitor Plant Inventory (2005)), there were 111 visitor-destination properties within Waikīkī consisting of 29,267 visitor units, representing 86% of the total island's visitor unit count and 45% of the entire State inventory. Waikīkī's hotels, visitor attractions, and natural resources draw the bulk of tourists expenditures in the State, with approximately $5 billion of $11 billion spent annually in Waikīkī. In addition to generating revenues that benefit the entire State, Waikīkī also provides employment opportunities to local residents.

Anticipated Impacts and Mitigation Measures

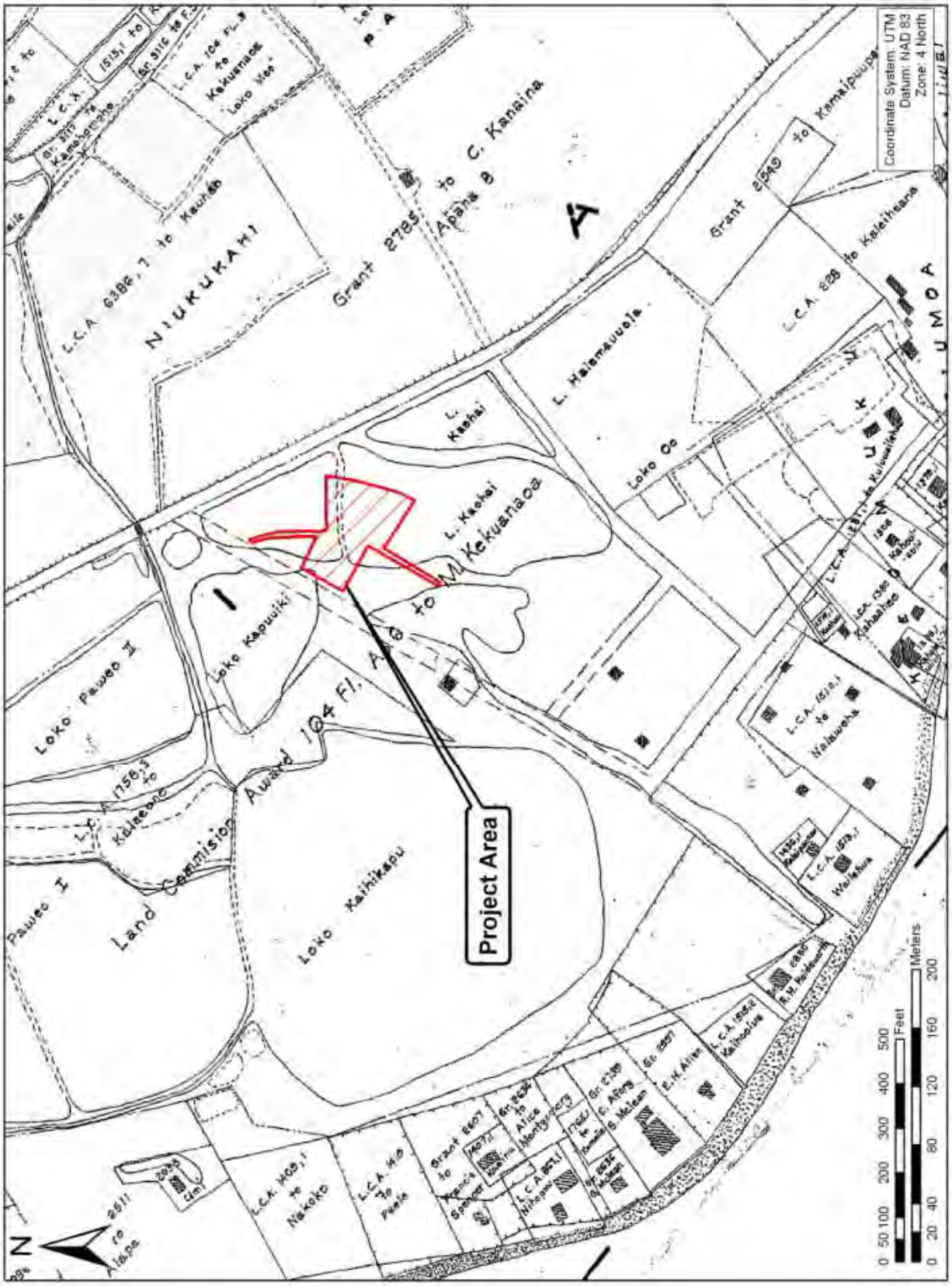
The anticipated socio-economic impacts for the local community are not significant. The project will create short-term benefits as a result of design and construction employment. Long-term benefits of the proposed project will possibly include a slight increase in jobs created as a result of the expansion of retail and dining services. No specific socio-economic mitigation actions are recommended.

3.17 CULTURAL RESOURCES, PRACTICES, AND LANDSCAPES

A Cultural Impact Assessment (February 2007) was completed by Cultural Surveys Hawai'i and its is included as *Appendix E*.

The project requires compliance with the State of Hawai'i environmental review process under Chapter 343, HRS, which requires consideration of a proposed project's effect on traditional cultural practices. Through document research and cultural consultation efforts, a cultural impact assessment was conducted, providing analysis of the proposed project's impacts to cultural practices per the OEQC Guidelines for Assessing Cultural Impacts. The scope of the assessment included an examination of historical documents, including Land Commission Awards, native and foreign journal accounts, and historic maps to identify traditional Hawaiian activities; a review of existing archaeological information pertaining to sites on the property or near vicinity that would identify traditional land use activities or patters; and interviews with persons knowledgeable about the historic and traditional practices in the project area and region.

Historical documentation indicates that, at the mid-nineteenth century, within the present project area were two fishponds, Loko Kapu'uiki and Loko Ka'ohai, that were part of the royal fishpond complex of the Kālia area. Some high ground existed in the project area, primarily under the existing parking structure in parcel 048. A small berm or causeway shown on an 1881 map by S.E. Bishop *(Figure 3-6)* also divided part of Loko Ka'ohai along the northern boundary of the project area.



Source: CSH, February 2007

Figure 3-6 280 Beach Walk Project Area Boundary Overlaid on 1881 S.E. Bishop Map

Evidence from nineteenth-century documents (the writings of John Papa ʻĪʻī, Māhele records, and an 1881 map) indicates that a trail from Honolulu to Waikīkī and beyond ran makai of the project area. It is likely that this trail was the traditional Hawaiian route through Waikīkī.

During the second half of the nineteenth century the Kālia fishponds, including Loko Kaʻohai, were leased to and operated by Chinese immigrants. An early indication of Waikīkī's future, makai of the project area the Saratoga Baths opened on the site of the present Outrigger Reef on the Beach. Despite these changes, the Hawaiians of the Kālia area apparently were not completely displaced in the latter 1800s since several Hawaiian fishermen were recorded as living in Kālia during the 1890s.

During the first decades of the twentieth century, the current project area would be among the first developed lands of Waikīkī. Loko Kapuʻuiki would be filled for the creation of Ft. DeRussy and the two Loko Kaʻohai were filled to create the Beach Walk tract in 1911. In subsequent decades, the project area was among an enclave of individual residences – typically cottages – and apartment complexes. In the 1950s construction began on the first large hotel structures that today surround the project area.

Although the research of historical documentation is complete, necessary interviews with kamaʻāina and kūpuna and other community contacts ~~are still being~~ were conducted. The findings from these interviews and "talk-story sessions" ~~will be~~ are included in this Final EA. Preliminary discussions and subsequent ethnographic interviews with community contacts ~~have~~ centered on knowledge regarding natural and cultural resources and known traditional cultural practices specific to the project area. Specific questions were raised for the following broad categories: burials, trails, native gathering practices of plants, marine and fresh water resources, and historic properties.

Anticipated Impacts and Mitigation Measures

Traditional native Hawaiian cultural practices declined with the extensive land modification and urbanization of the greater Waikīkī area. As the wetlands were drained and ponds were filled to accommodate the continuing expansion of urban Honolulu, the traditional way of life for native Hawaiians was no longer as possible as once was in Waikīkī. As such, there no known or on-going traditional cultural practices in the vicinity of the current proposed project area.

Although the area has been graded and filled to accommodate previous development, the natural soil deposit is Jaucus sand and there may be intact sand strata below one or more fill layers. Cultural descendants of Waikīkī who had participated in the assessment indicated that there could be iwi kūpuna (ancestral human remains) within the project area. Native Hawaiian burial practices were such that the potential for encountering human burials in sandy deposits within the current proposed project area does exist. Additionally, the present project area is located in the previous location of two fishponds, Loko Kapuʻuiki and Loko Kaʻohai. Thus, remnant subsurface fishpond sediments could be encountered.

It is anticipated, based on historical research and previous archaeological projects, that evidence of pre-contact and early post-contact aquaculture, habitation, agriculture, and possibly burial practices may be found in the project area if intact Jaucus sand deposits remain below nineteenth and twentieth century fill layers.

Based on the above preliminary findings, no further formal cultural impact mitigation measures are warranted. It is recommended that as a precautionary measure, personnel involved in future

development activities in the area should be informed of the possibility of inadvertent cultural finds and should be made aware of the appropriate notification measures to follow.

3.18 ARCHAEOLOGICAL & HISTORIC RESOURCES

An archaeological assessment (January 2007) was completed by Cultural Surveys Hawai'i and is included as *Appendix F*.

As a privately funded project on privately owned land, the proposed 280 Beach Walk Retail Development requires compliance with and review under state of Hawai'i historic preservation review legislation (Hawai'i Revised Statutes (HRS) Chapter 6E-42 and Hawai'i Administrative Rules (HAR) 13-284). At the request of the First Round Pacific, LLC, CSH completed an archaeological inventory survey investigation, per the requirements of HAR Chapter 13-13-276, of the subject 0.7-acre parcel. Under Hawai'i State historic preservation legislation, archaeological inventory surveys are designed to identify, document, and provide significance and mitigation recommendations for historic properties. Under this legislation, historic properties are defined as any "building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old" (HAR Chapter 13-284-2).

A project's effect and potential mitigation measures are evaluated based on the project's potential impact to "significant" historic properties (those historic properties determined eligible, based on established significance criteria, for inclusion in the Hawai'i Register of Historic Places [Hawai'i Register]). Determinations of eligibility to the Hawai'i Register result when a state agency official's historic property "significance assessment" is approved by the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or when SHPD itself makes an eligibility determination for an historic property (HAR Chapter 13-284).

Existing Conditions

A brief and full pedestrian inspection of the project area confirmed that all standing architecture was less than 50 years old and that there were no surface historic properties. Accordingly, the archaeological assessment focused on a program of subsurface testing to locate any buried cultural deposits, which, based on the results of background research, CSH expected to find beneath layers of historic and modern fill.

For this report, historic is defined as anything older than 50 years and modern is defined as anything younger than 50 years. The sub-surface testing program consisted of the excavation of 11 backhoe trenches *(Figure 3-7)*. Trenches were distributed throughout the project area to provide representative coverage and to assess the stratigraphy and potential for subsurface cultural resources for the project area. Trench locations were also selected to test specific portions of the project area where, based on background research, subsurface cultural deposits were thought more likely. These trenches provided additional documentation of specific cultural remains and/or stratigraphic layers and better established their geographic distribution.

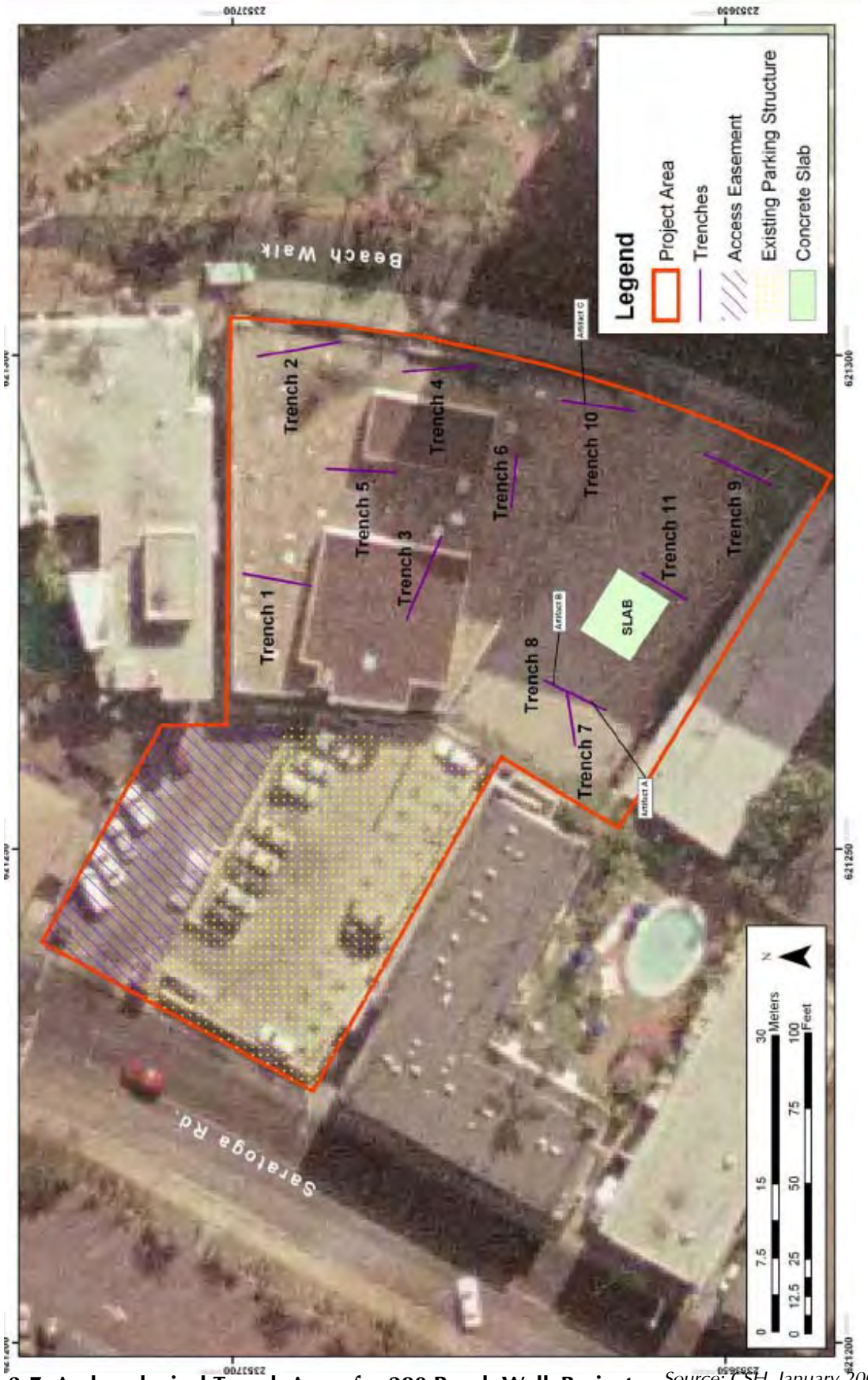


Figure 3-7 Archaeological Trench Areas for 280 Beach Walk Project *Source: CSH, January 2007*

The testing program also focused on characterizing the project area's buried land surface that predated the historic and modern fill layers. High areas of this older land surface, found in only the northern boundary of the project area, were more likely to be associated with significant cultural deposits.

For this survey, eleven backhoe trenches were randomly spaced and dug to a depth of 1.5 to 2.0 meters. Because of the high potential for human burials in Waikīkī, hand excavation in sand deposits was specifically undertaken to identify potential burial deposits. When sandy deposits were noted during excavation of the backhoe trench and were believed to be of sufficient depth to be natural, mechanical excavation stopped and an archaeologist entered the trench. Excavation continued by hand when jaucas sand deposits were identified. Because of the thick layers of fill and thin layers of pond sediment that were nearly ubiquitous throughout the project area, this hand excavation was not extensively utilized.

Anticipated Impacts and Mitigation Measures

In evaluating other previously conducted archaeological work in Waikīkī, Cultural Surveys Hawai'i, the contract archeological firm hired for this project, had determined that .10 to 1.5 percent of an area's acreage was the range surveyed. For the proposed 280 Beach Walk project, the subsurface testing program involved a sampling of 2.44% of the entire project area, which is considered to be one of the most thorough testing programs completed in the Waikīkī area. Based upon the test conducted, no subsurface historic properties were identified within the project area. In total, three artifact deposits were found in the project area: a basalt lithic, a green glass bottle, and a diffuse trash deposit.

None of these artifact deposits constitute a substantial deposit that is an excellent example of a site type, has the potential to yield information about the past, or was found to meet any other criteria for the Hawai'i State Register of Historic Places. However, given the known potential for human burials within the surrounding area, it is recommended that archaeological monitoring be employed as a contingency measure during construction.

This monitoring program will focus on identification and proper treatment if any isolated burials or disturbed remains predicted by background research are found and will gather additional information regarding the project's non-burial archaeological deposits, should any be discovered. This archaeological monitoring program may consist of a combination of onsite and on-call monitoring of project construction.

Final verification and acceptance of the findings of the Archaeological Assessment is the responsibility of SHPD. Consultation and necessary mitigative coordination between project developers and SHPD will be ongoing and will continue through the Waikīkī Special District (Major) Use permit application process, as well as through project construction.

3.19 VISUAL RESOURCES

Existing Conditions

Within the objectives of the City and County of Honolulu's Land Use Ordinance (LUO), there is an emphasis placed upon maintaining and improving the mauka views from public viewing areas in Waikīkī, especially from public streets. Additional emphasis is placed upon preserving a visual relationship with the ocean from Kalākaua Avenue, Kālia Road, and Ala Moana Boulevard. Further, views of Diamond Head are to also be protected and maintained from the Punchbowl Lookout.

A conglomeration of hotel buildings of varied heights dominates the visual landscape of the Lewers-Kālia area. Interspersed along the perimeters of existing structures are a series of trees and other natural vegetation. Currently, no shoreline or ocean views exist from Beach Walk due to frontal blockage of the coastline from existing buildings. Views toward the ocean along Saratoga Road are also restrictive due to the presence of existing structures within the project area and along the shoreline. Existing visual conditions are shown in *Figures 3-8* and *3-9*.

Anticipated Impacts and Mitigation Measures

There will be short-term effects to the visual quality within and near the project area during the construction of the new retail and restaurant center. Anticipated effects on the visual landscape will primarily be from construction equipment within the project area and temporary fencing that will block access to portions of the project area undergoing construction. Upon completion of the renovation and construction phases, the quality of the visual landscape will be improved.

The siting and elevation of the new two-story building will not significantly affect the view corridors. View planes from the mountains to the sea will not be significantly impacted. The application of Waikīkī Special District urban design guidelines, specifically building orientation and ground level design considerations, should also help ameliorate any potential additional visual concerns. The use of shading trees and shrubs in the landscape plan throughout the project area along with the use of design screens near the parking area will also help to maintain the visual quality along the streetscape of Saratoga and Beach Walk.

3.20 POTENTIAL CUMULATIVE AND SECONDARY IMPACTS

The proposed project is occurring at a time when multiple public and private entities are investing in the improvement of Waikīkī. As public and private amenities continue to revitalize Waikīkī, visitors and local residents alike will rediscover the area as a major visitor destination. Individual land owners, visitor industry operators, community and business organizations such as the Waikīkī Business Improvement District (BID), and government agencies will all play a role in shaping a Waikīkī that is unique, attractive, and safe. Improvement of this area of Waikīkī will help improve the image of Waikīkī as a whole for visitors and residents. The creation of additional restaurant and retail opportunities at a relatively small-scale may encourage nearby businesses to take similar measures to continue to improve the conditions within this area. Construction activity during the proposed project will generate direct employment as well as indirect and induced employment in construction-related industries. In the long term, the improved restaurant and retail space may require additional employees as well as additional goods and services from visitor industry businesses.

Figure 3-8 View of Project Area from Mauka Side of Kalākaua Avenue

Figure 3-9 View of Project Area from Beach Walk Triangle Park

SECTION 4.0
Alternatives to the Proposed Project

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

This Draft Environmental Assessment evaluates alternatives to the proposed project described in *Section 2.0*. The following provides a discussion of the alternatives to the proposed project.

4.1 NO ACTION ALTERNATIVE

The no-action alternative is the baseline against which all other alternatives are measured. This analysis essentially presents the details of the future site and program conditions that will most likely result should the proposed renovations not proceed.

The no-action alternative will result in no improvements for these parcels within the urban core of Waikīkī. The result will be the potential for this area to be viewed as an area of urban blight, contributing to a feeling that this area would be a less desirable section of Waikīkī for residents and visitors to enjoy. "Patch and paint" improvements not requiring environmental studies or other permits will continue for the existing parking lot structure and fenced-in gravel lot.

The no-action alternative will prevent 280 Beach Walk Retail Development from becoming a part of the revitalization effort occurring in the immediate vicinity, including the efforts of the Waikīkī Beach Walk, the new Trump Tower, and the improvements to the Royal Hawaiian Shopping Center. The no-action alternative will also forego the opportunity to create an improved public gathering place with new retail and dining spaces and allow a pedestrian experience that has somewhat deteriorated to persist.

4.2 ALTERNATIVE LOCATIONS FOR PROPOSED PROJECT

It is the desire of First Round, LLC to revitalize its existing holdings. The proposed action is a long-term purposeful redevelopment of the property area under review. Given this objective, redevelopment of alternative sites was not considered.

4.3 ALTERNATIVE LAND USE CONSIDERATIONS FOR PROPOSED PROJECT

The project area is situated within the portion of the City and County of Honolulu Waikīkī Special District that allows for the development of structures up to 300 feet. One alternative land use configuration initially considered was the development of a twelve-story residential tower (approximately 160 feet) with an adjoining three-story structure (40 feet) that would have provided ground floor retail and two floors of parking above *(Figures 4-1* and *4-2*). A car bridge would have traversed across Parcel 058 to connect the existing two-story parking structure on Parcel 048 and 049 with the new three-story retail and parking structure.

Although this alternative would have resulted in a major redevelopment effort that could have potentially yielded significant financial potential, its scale was viewed by the landowner as not appropriate to the character and feel for this area. Further, a project of this scale would have the potential for greater impact to traffic conditions, infrastructure demands, possible subsurface historic resources, view planes, and socioeconomic conditions. Reconsideration of this land use alternative led to development of the preferred design, as outlined in *Section 2.0* of this document.

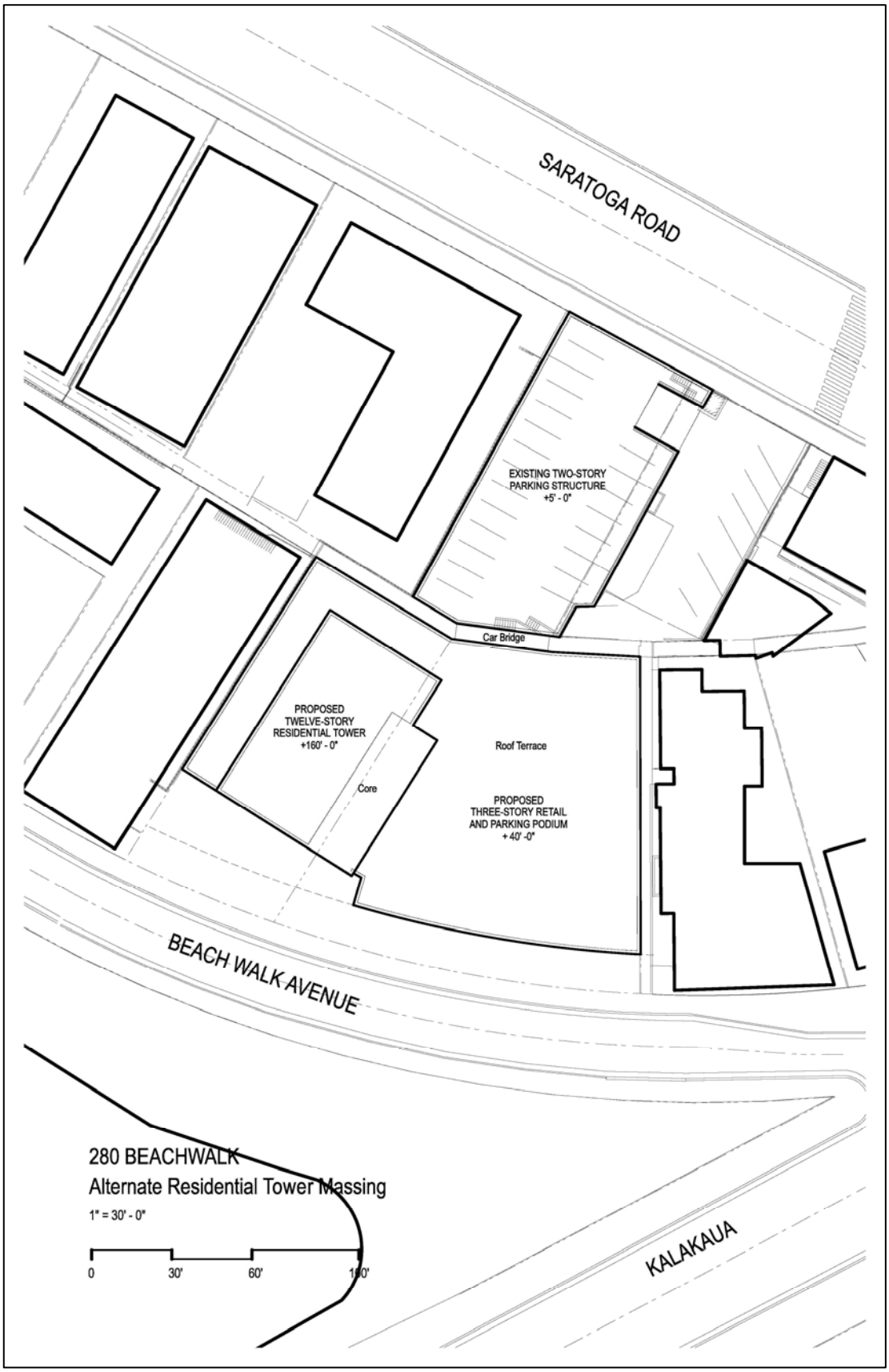


Figure 4-1 Multi-Story Residential & Retail Tower Alternative Site Plan

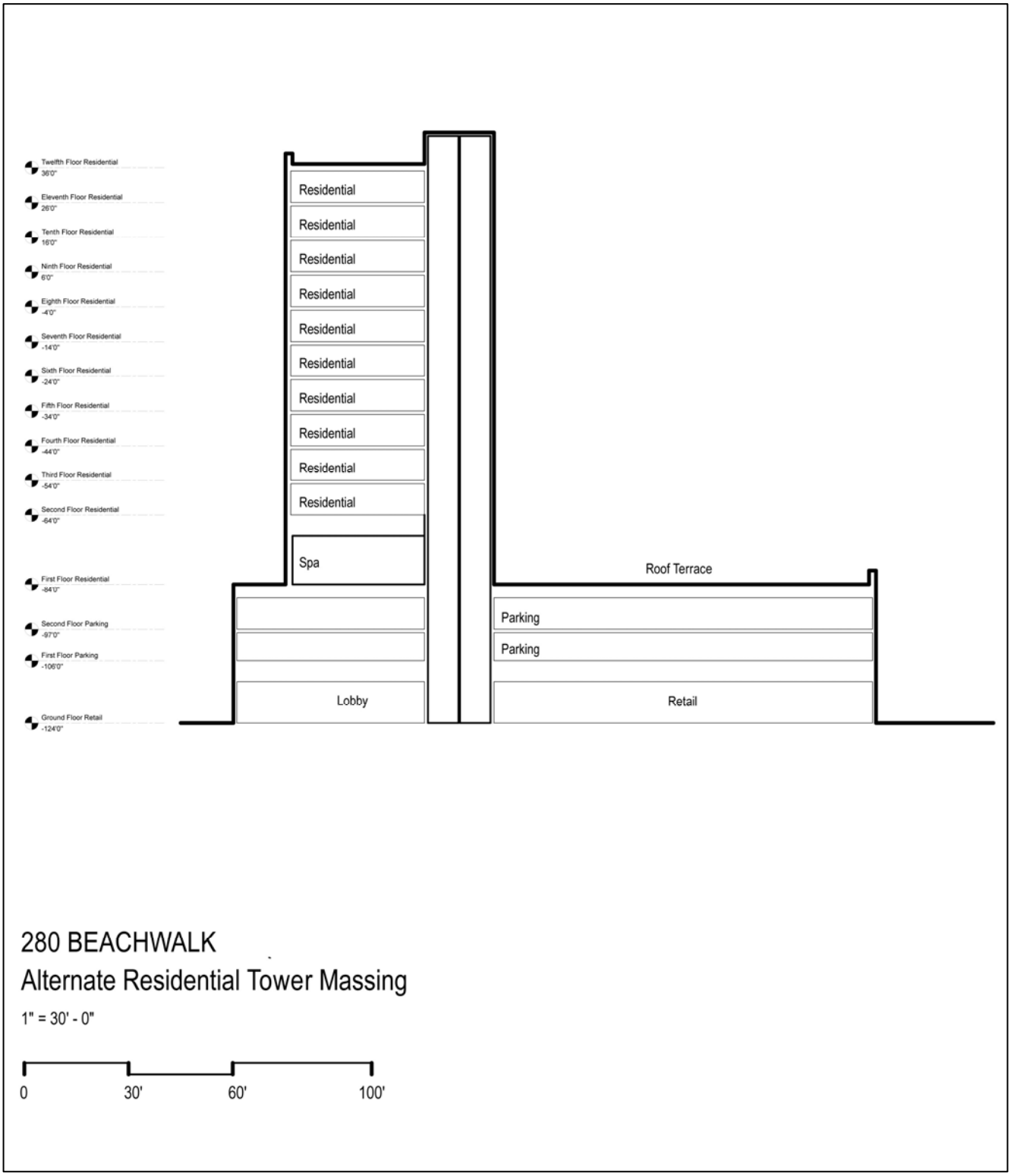


Figure 4-2 Multi-Story Residential and Retail Tower Alternative

4.4 ALTERNATIVE DESIGN SCHEMES

Public Right-of-Way Easement and Landscaping Scheme

An alternative to the proposed transfer of the public right-of-way (ROW) is to maintain the required 5 foot wide public ROW easement along Beach Walk (*Figure 4-3*). Pedestrian circulation would also be provided along the front of the building to allow for access to each of the retail units. The result of this alternative is a significant decrease in the amount of ~~green~~ landscaped space that would be provided from the preferred design scheme outlined in *Section 2.0*. This alternative, which would meet LUO requirements, would result in the provision of approximately 1,232 SF of ~~green~~ landscaped space as compared to 2,207 SF in the preferred alternative. A final determination of an approved front yard design scheme will be necessary for the acceptance of a Special District Permit (Major) application.

The alternative landscape scheme would be have to integrate landscaping into areas that do not infringe upon existing right-of-way sidewalk. Thus, landscaping in this scenario is limited to two smaller pockets of planting areas. The result is less space and opportunity to install larger palm and other smaller trees. Due to root damage to paved surfaces, palm and tree root balls need to be setback from the paved edges. By adding more paved edges around a smaller planting area, there is less opportunity to use more trees and palms and their alignment within the planting area becomes more linear and less playful and aesthetic. Groundcover and shrub areas in this approach are also reduced.

Demolition of Existing Parking Structure

An alternative to the preferred design option was the consideration to demolish the entire parking structure. In this scenario, 7,400 SF of the existing parking structure would be affected. If the parking structure were to be demolished, one parking management option would be to provide a single paved lot with attended tandem spaces would be provided to yield the same quantity of parking spaces as would the partial demolition. Another viable alternative that could be evaluated during the design phase of the project is the use of a two-level parking stacker system, which creates the efficient use of a small area.

In either scenario, the above grade portion of the existing 1-story basement parking structure would be demolished to create space for the on-grade parking. The basement of the existing parking structure would remain in place and be infilled, therefore no new excavation of the parking area is necessary except for small shallow foundations for the proposed car stacking system. Any consideration will utilize landscaping and screening to minimize visual impact of parking area from the streetscape and pedestrian experience.

Demolition of the structure would generate more short-term related impact including affects related to noise, traffic, air quality, and the generation of solid waste that could not be retained or reused on site. Although the recommended mitigative measures outlined in Section 3.0 related to short-term construction-related impacts could be utilized, some additional measures would need to be employed to minimize these impacts. One of the more prominent impacts of this alternative is the generation of solid waste materials. The yield of solid waste would require additional measures to deliver, transfer, and dispose the material to an appropriate crushing or recycling facility or to the construction and demolition landfill in Nānākuli.

4.5 MATERIALS USED FOR PROPOSED PROJECT

Several alternatives for materials used were proposed for the project. Factors considered in the evaluation and selection of preferred designs and materials ~~were~~ are based on compliance with building code and design guidelines, visual compatibility, cultural suitability, construction and maintenance costs, safety and feasibility. The detailed selection of materials to be used throughout the project, including the use of natural woods, metal, and plaster combined with glass will be finalized during the of the Special District Permit (Major) process.

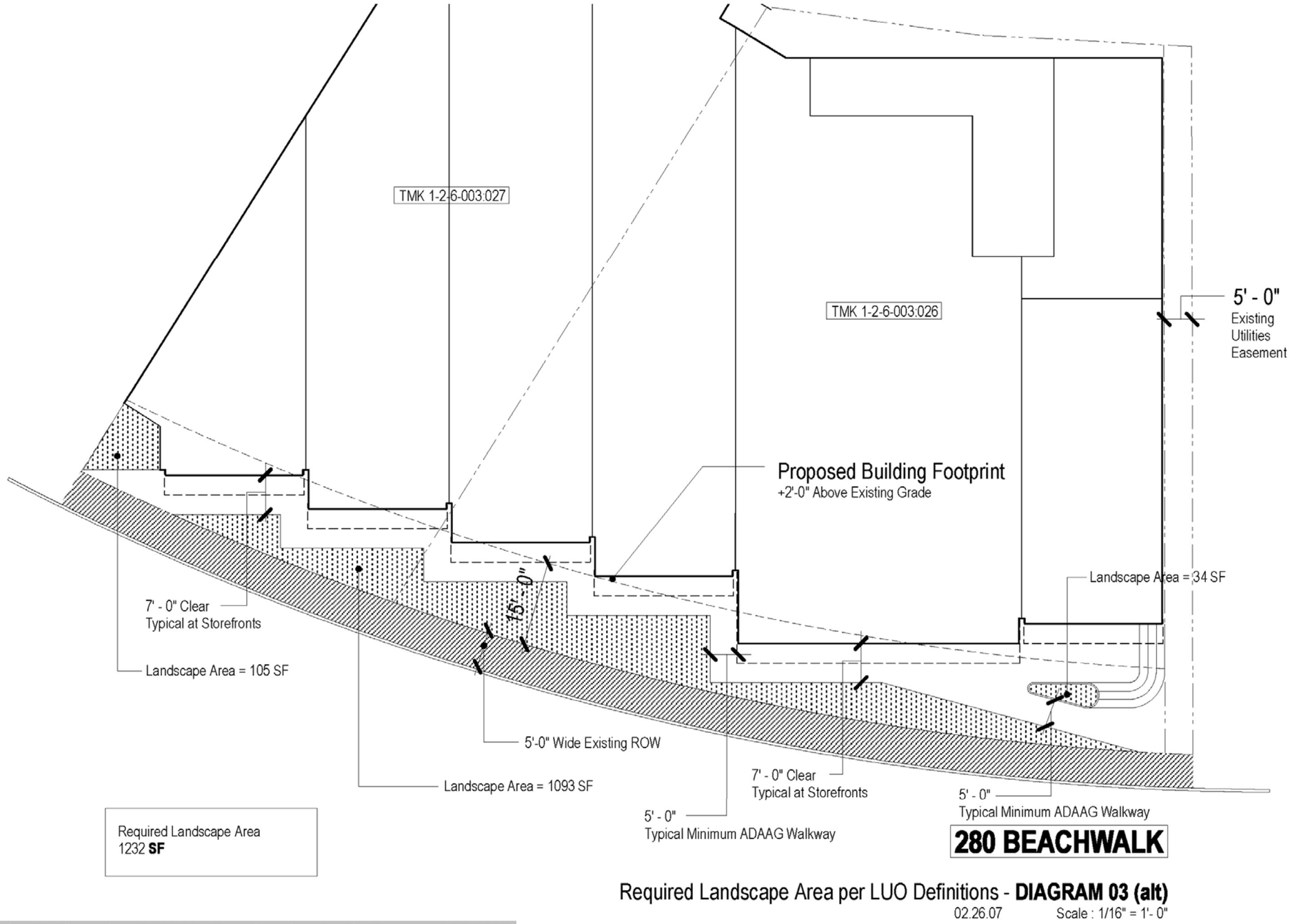


Figure 4-3 **Alternative Design Configuration- ROW Not Transferred to On-Site Easement (REVISED)**

SECTION 5.0
Applicable Land Use Plans and Policies

5.0 APPLICABLE LAND USE PLANS AND POLICIES

An important consideration in evaluating the potential impacts of a proposed action on the environment is how it may conform or conflict with approved or proposed land use plans, policies, and controls for the affected area. The project's consistency with applicable land use policies set forth in Hawai'i State Land Use Law, the Hawai'i State Plan, the Coastal Zone Management Program, the City and County of Honolulu's General Plan, the Primary Urban Center Development Plan, the applicable provisions of the Land Use Ordinance, the Waikīkī Special District Design Guidelines, and Special Management Area guidelines are discussed.

5.1 HAWAI'I STATE LAND USE DISTRICT BOUNDARIES

Under the Chapter 205, HRS, all lands of the State are to be classified in one of four categories: urban, rural, agricultural, and conservation lands. The State Land Use Commission (LUC), an agency of the State Department of Business, Economic Development, and Tourism (DBEDT) is responsible for the standards and determining the boundaries of each district (Chapter 205-2(a), HRS). The LUC is also responsible to administer all requests for district reclassifications and/or amendments to district boundaries, pursuant to Chapter 205-4, HRS, and the Hawai'i Administrative Rules, Title 15, Chapter 15 as amended.

Discussion
The 280 Beach Walk property is situated within the State-designated Urban district. The proposed uses within the property are consistent with urban design guidelines and permitted activities and require no district reclassification or boundary amendment.

5.2 HAWAI'I STATE PLAN

The Hawai'i State Plan establishes a statewide planning system that provides goals, objectives, and policies which detail property directions and concerns of the State of Hawai'i. Priority guidelines relating to the economy, housing, population growth, facility systems, and the physical environment will be discussed as they relate to the 280 Beach Walk project. It is the goal of the State, under the Hawai'i State Planning Act (Chapter 226, HRS), to achieve the following:

- A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i present and future generations.
- A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
- Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life (Chapter 226-4, HRS).

The objectives and policies of the State Plan that are pertinent to 280 Beach Walk project are discussed below.

Economy
The objectives for planning the State's economy include increasing and diversifying employment opportunities to provide a better economic quality of life for Hawai'i's people. It is also the objective of the State to create a diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands. It is the policy of the State to:

- Expand existing markets and penetrate new markets for Hawai'i's products and services (Chapter 226-6, HRS).

Visitor Industry Economy
It is the objective of the State to create and maintain a visitor industry that constitutes a major component of steady growth for Hawai'i's economy. It is the policy of the State to:

- Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.
- Improve the quality of existing visitor destination areas (HRS, Chapter 226-8).

Discussion
The 280 Beach Walk project is a modest investment into the future viability of this portion of Waikīkī. The project will be a small piece of a larger district effort of redevelopment in an area that has been identified as in need of improvements. The proposed development is consistent with the objectives and policies of the State Plan. The project will also promote the goals of the State of Hawai'i by enhancing and maintaining the visitor industry as a major component of steady growth for its economy by improving the quality of existing visitor destination areas.

5.3 HAWAI'I COASTAL ZONE MANAGEMENT PROGRAM

The Coastal Management Program (CMP) is a comprehensive state plan that establishes and enforces standards and policies to guide the development of public and private lands within the coastal areas. In the State of Hawai'i, the CMP is articulated in the State Coastal Zone Management (CZM) Law (Hawai'i Revised Statutes, Chapter 205A). The Hawai'i CZM Law charges the counties with designating and administering Special Management Areas (SMA) within the State's coastal areas. Any "development", as defined by the CZM Law, that is located within the SMA requires a SMA Use Permit.

Discussion
The property is situated outside of the SMA (refer to *Figure 1-3*) and as such does not require an additional review under State CZM and County SMA rules.

5.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN

Adopted by resolution in 1977, the General Plan for the City and County of Honolulu sets forth the long-range objectives for the general welfare and prosperity of the people of O'ahu and broad policies to attain those objectives. The General Plan provides objectives and policies intended to guide and coordinate City land use planning and regulation, and budgeting for operations and capital improvements. Provided below are the applicable objectives and policies of the City and County of Honolulu General Plan.

Economic Activity

Objective B: To maintain the viability of O'ahu's visitor industry.
Policy 2: Provide for a high quality and safe environment for visitors and residents in Waikīkī.
Policy 3: Encourage private participation in improvements to facilities in Waikīkī.

Discussion
The project will create short-term employment opportunities related to project construction and will enhance the quality of the visitor experience in Waikīkī. The redevelopment efforts of the project reflect a commitment to and participation in the overall improvement of Waikīkī.

Physical Development and Urban Design

Objective E: To create and maintain attractive, meaningful, and stimulating environments throughout O'ahu.
Policy 3: Encourage distinctive community identities for both new and existing districts and neighborhoods.
Policy 4: Require the consideration of urban-design principles in all development projects.

Discussion
The proposed project occurs in an area that is already designated for urban resort and commercial use within the primary urban center. The project is consistent with the Waikīkī Special District Guidelines and will contribute to the distinctive community of a revitalized commercial area within Waikīkī.

5.5 CITY AND COUNTY OF HONOLULU PRIMARY URBAN CENTER DEVELOPMENT PLAN

The City and County of Honolulu Primary Urban Center (PUC) includes the communities from Wai'alae-Kahala to Pearl City. It is the most populated part of the State of Hawai'i and is O'ahu's largest employment center. In keeping with the policies of the general plan, the PUC is planned to efficiently accommodate more intensive commercial, governmental, residential and recreational functions in a manner that safeguards and adds to the existing amenities of the city's urban environment.

The Development Plan for the PUC describes the desired urban character and the significant natural, scenic and cultural resources. It includes general guiding principles for the PUC and area specific guiding principles for Waikīkī that detail appropriate land uses. The 280 Beach Walk project is located in the PUC. The applicable guiding principles are listed below.

1) Waikīkī should continue to be maintained as Hawai'i's primary visitor destination area, with an emphasis on improving the quality of the environment and discouraging further high-density development in the area.

2) In order to promote a more pleasing and attractive urban setting and to maintain a strong sense of the nearness of open space and nature, a strong mauka-makai orientation needs to be promoted through the establishment and preservation of mauka-makai view corridors and open space belts along streams. Panoramic views, views of major landmarks, and view planes from Waikīkī to the mountains shall also be protected.

Using these guiding principles, specific control measures are provided which detail appropriate types of activity to occur within Waikīkī. These controls are designed to enhance the attractiveness and quality of Hawai'i's primary tourist destination area and its nearby residential areas. The relevant controls applicable to the project are discussed below.

- Resort and related commercial activities shall be concentrated in the area makai of Kūhiō Avenue and Ala Moana Boulevard.
- Existing views of the mountains, ocean and Diamond Head from streets, pedestrian corridors and major public places shall be preserved through more stringent development controls in terms of height, bulk, siting and setback. Such views shall be enhanced by appropriate landscaping requirements for private developments along view corridors and the appropriate landscaping of related streets.
- Landscaping along mauka-makai roadways that provide visual access to the mountains and the sea from Waikīkī shall be selected and situated to minimize the visual dominance of the paved surfaces and to maintain existing mauka and makai views along these roadways.

Discussion

The project area is located makai of Kūhiō Avenue and is within the District Commercial designated area of the PUC. As a retail-restaurant project, the proposed 280 Beach Walk is anticipated to support the policy of the PUC as it relates to visitor facilities by contributing to a plan for a vibrant and livable Waikīkī. The new two-story building will not affect view corridors. Overall, the physical design, programmatic spacing of retail and dining activities, and landscaping of the area will enhance the character and feel of adjoining land use activities at a scale that is low density. The proposed character of 280 Beach Walk meets the policies of the PUC regarding building design and the streetscape environment as it is designed to reflect a human scale, provide an attractive series of front entrances for the storefronts, and stimulates a pleasant pedestrian experience.

The PUC pedestrian network is aligned along Kalākaua Avenue, which designates this street as a high priority for pedestrian improvement. The preferred front-yard design of 280 Beach Walk will adhere to the PUC policy of making streets "pedestrian-friendly" by providing shade and buffering pedestrians from vehicular traffic entering Beach Walk via Kalākaua Avenue.

5.6 CITY AND COUNTY OF HONOLULU LAND USE ORDINANCE & WSD GUIDELINES

The purpose of the County Land Use Ordinance (LUO) is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies, including the O'ahu general plan and development plans. The LUO is intended to provide reasonable development and design standards. These standards are applicable to the location, height, bulk and size of structures, yard areas, off-street parking facilities, and open spaces, and the use of structures and land for agriculture, industry, business, residences or other purposes (Revised Ordinance for the City and County of Honolulu, Chapter 21).

Within the LUO, there are special design standards outlined for the development of Waikīkī. As a recognized symbol of Hawai'i, Waikīkī possesses allure as a tropical resort destination. Waikīkī continues to attract visitors from all parts of the world, serving as the cornerstones for the state's tourist industry. Additionally, Waikīkī continues to serve as a vital employment center and as a home for thousands of full-time residents. Due to the City's commitment to the socio-economic well being of Waikīkī, the area became designated as a Special District, with guidelines established to direct Waikīkī's future and protect its unique Hawaiian identity (LUO, Sec. 21-9.80).

The 280 Beach Walk project is located partially within two zones of the Waikīkī Special District: the Resort Mixed Use Precinct and the Resort Commercial Precinct *(Figure 3-3)*.

The establishment of the Waikīkī Special District was largely a response to the rapid development of the 1960s and 1970s, and the physical and social changes attributed to that development. As a sophisticated urban resort, diversity, and contrast characterize Waikīkī. The LUO's Special District Guidelines are a planning tool aimed at restoring the basic appeal of Waikīkī as a pedestrian friendly environment. To complement the strong urban image that Waikīkī possesses, there is an emphasis on developing creative and functional uses of the ground-level open space. The focus of open space helps to define a "Hawaiian sense of place" as stated in the objectives of the Waikīkī Special District Guidelines that are enumerated in Section 9.80-1 of the LUO. The applicable objectives of the Waikīkī Special District addressed by the 280 Beach Walk project are discussed below.

- Provide for a variety of compatible land uses which promote the unique character of Waikīkī, emphasizing mixed uses.
- Provide opportunities for creative development capable of substantially contributing to rejuvenation and revitalization in the special district and able to facilitate the desired character of Waikīkī for areas susceptible to change.
- Encourage architectural features in building design which complement Hawai'i's tropical climate and ambience, while respecting Waikīkī's urbanized setting. The provision of building elements such as open lobbies, lanais, and sunshade devices is encouraged.
- Maintain, and improve where possible: mauka views from public viewing areas in Waikīkī, especially from public streets; and a visual relationship with the ocean, as experienced from Kalākaua Avenue, Kālia Road and Ala Moana Boulevard. In addition, improve pedestrian access, both perpendicular and lateral, to the beach and the Ala Wai Canal.
- Emphasize a pedestrian-orientation in Waikīkī. Acknowledge, enhance and promote the pedestrian experience to benefit both commercial establishments and the community as a whole. Walkway systems shall be complemented by adjacent landscaping, open spaces, entryways, inviting uses at the ground level, street furniture, and human-scaled architectural details. Where appropriate, open spaces should be actively utilized to promote the pedestrian experience. (LUO, 9.80-1).

The Waikīkī Special District Design Guidelines provide the vision for the redevelopment, renovation, and renewal of Waikīkī. The guidelines are intended to promote building design that responds to Hawai'i's climate, relates to human scale and preserves significant public views. The design guidelines offer solutions to reduce perceptions of overcrowding while enhancing the overall aesthetic nature of Waikīkī.

According to these design guidelines, the physical features of developments in Waikīkī need to be improved and enhanced. The ideal of a Hawaiian sense of place reflects both an architectural style as well as implementing a sense of core values and perceptions in selected landscaped elements. The future design of Waikīkī needs to embrace the significance of its rich history and incorporate it into contemporary design and context that allows people to be fully engaged with the natural and built environment.

Building Design

In developing the District Design Guidelines, the key elements incorporated into building design are: orientation and form, maintaining a link with the natural environment, developing areas to human scale, and preserving significant vistas. With these elements in mind, the results should

promote a sense of increased open space, enhance the allure and beauty of Waikīkī, and reflect the values and spirit of these islands in the built environment (WSDG: 4; LUO, 21-9.80-4).

Ground Level Features

Within a development, attention should be given to pedestrian-oriented ground level features. A close indoor-outdoor relationship should be promoted. Design priority should include the visual links through a development connecting the sidewalk and other public areas with on-site open spaces, mountains and the ocean. In addition, other designs of the ground level built environment such as outdoor dining, vending carts, porte cocheres, walls and fences, shading, roof design and equipment screen, should always incorporate the elemental styles and textures that exist in the natural environment (WSDG: 8-16; LUO, 21-9.80-4 (c)(8)).

Landscaping/ Exterior Features

The physical development of Waikīkī is dependent upon integrating the natural and built environment together. Key elements in this integration are the appropriate design, context, and materials used in developing the overall landscaping and exterior features of the area. Exterior features include but are not limited to garden landscaping, water features, sidewalks, lighting, and signage. Appropriate landscaping and exterior features should incorporate measures to have a minimal aesthetic and visual impact. In addition, the features should incorporate elements that are representative of the natural and cultural landscape (WSDG: 17-23; LUO, 21-9.80-4(c) (8)-(f)).

Urban Design Controls

All structures, open spaces, landscape elements and other improvements within the Waikīkī Special District must meet the design standards of the LUO. In regards to the 280 Beach Walk project, the applicable elements are:

1) Major Streets: Kalākaua Avenue is identified as a major street that provides vehicular and pedestrian access through Waikīkī. This street also functions as a view corridor with open space and public access. Development within and adjacent to this street needs to comply to a high degree with the District guidelines to realize the objectives relative to the streetscape.
2) Mini Parks: Beach Walk Triangle Park is one of several identified mini parks that allow for pockets of open space and provides a public focus for motorists and pedestrians. Visual and public access to these parks should be maintained and supported by surrounding uses.

Discussion

The continuity of the project design with the surrounding area will enhance existing retail and commercial space that maintains a sense of balance between the built and natural forms. The project unifies the property with the ongoing redevelopment of the area by incorporating a common design vocabulary and seamlessly tying the various project components together through strong physical and visual linkages at the ground level. The 280 Beach Walk project is aimed at enhancing the pedestrian experience through the open corridor of Beach Walk and Kalākaua Avenue, including the Beach Walk Triangle Park.

Site development criteria were developed based upon calculations derived from LUO standards and guidelines. These criteria are presented in *Appendix G*.

SECTION 6.0
Findings Supporting Anticipated Determination

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION

6.1 ANTICIPATED DETERMINATION

After reviewing the significance criteria outlined in Chapter 343, Hawai'i Revised Statutes (HRS), and Section 11-200-12, State Administrative Rules, Contents of Environmental Assessment, the proposed action has been determined to not result in significant adverse effects on the natural or human environment. A Finding of No Significant Impact (FONSI) is anticipated for this project.

6.2 REASONS SUPPORTING THE ANTICIPATED DETERMINATION

The potential impacts of the planned development of 280 Beach Walk have been fully examined and discussed in this Draft Environmental Assessment. As stated earlier, there are no significant environmental impacts expected to result from the proposed action. This determination is based on the assessments as presented below for criterion (1) to (13):

(1) Involve an irrevocable loss or destruction of any natural or cultural resources.

As detailed in Section 3.0 of this report, the project does not involve any known loss or destruction of existing natural or cultural resources. The only specific area of concern is the unknown potential for the inadvertent discovery of subsurface historical or cultural resources, including ~~the unknown possibility of an inadvertent discovery of~~ iwi kūpuna (ancestral remains). The archaeological and cultural landscapes have been documented in studies conducted specifically for the project area, as well as other adjacent properties whose activities have required their own environmental review. Extensive sampling was conducted to test for the possibility of subsurface resources with only three artifacts found.

Given the possible potential for discovery of an inadvertent find, it is recommended that archaeological monitoring be conducted during construction. Consultation with families and individuals that have been recognized as lineal and cultural descendants for other projects in Waikīkī are ongoing. Part of this process is to ascertain as to what ~~would be~~ culturally-appropriate procedures or protocols are to be implemented in the event that ancestral burials are discovered. In general, if any cultural, historic, or archaeological resources are unearthed or ancestral remains are inadvertently discovered, the State Department of Land and Natural Resources, Historic Preservation Division, the O'ahu Island Burial Council representative, and participating interests from these families and individuals will be notified. The treatment of these resources will be conducted in strict compliance with the applicable historic preservation and burial laws.

(2) Curtail the range of beneficial uses of the environment.

The 280 Beach Walk project is part of an overall revitalization effort within the Beach Walk corridor of Waikīkī. Existing uses conform to existing zoning and current land use designations, as the scale of the proposed project is significantly less than what is allowed under the LUO. The enhancements to the visitor experience that is anticipated upon completion of this project will continue to be compatible with the improvements to the environment and character within the immediate area and in Waikīkī, in general.

(3) *Conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.*
The proposed project does not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

(4) *Substantially affects the economic or social welfare of the community or State.*
Short-term economic benefits anticipated during construction and landscaping will include direct, indirect, and induced employment opportunities and multiplier effects but not at a level that would generate significant economic expansion. Long-term economic benefits anticipated during future operations includes an expansion of dining services currently available to both kamaʻāina and island visitors.

(5) *Substantially affects public health.*
The project is consistent with existing land uses and is not expected to affect public health. However, there will be temporary short-term impacts to air quality emanating from possible dust emissions and temporary degradation of the acoustic environment in the immediate vicinity resulting from construction equipment. Construction-related impacts of noise, dust, and emissions will be mitigated by compliance with the State Department of Health Administrative Rules. Anticipated duration of construction is 12 months.

(6) *Involves substantial secondary impacts, such as population changes or effects on public facilities.*
The new renovations would create only a very small potential increase of visitors to the area with an increased capacity to host a maximum of 400 guests at the restaurant with sufficient management and staff personnel. Additionally, the retail vendors will also attract visitors and require adequate staffing for each respective operation. The majority of these visitors to the project area are expected to be already staying somewhere in Waikīkī. The overall impact to the project area and the effects on public facilities would be considerably minor.

(7) *Involves a substantial degradation of environmental quality.*
The proposed development will not involve a substantial degradation of environmental quality. To the contrary, improvements to the project area serve to transform a fenced vacant lot into a modest visitor destination in Waikīkī. These improvements would not create impacts to known natural, cultural environmental resources.

(8) *Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.*
The 280 Beach Walk project is a small part of the overall improvement to the character of the immediate Beach Walk area but is not a precursor for other future actions.

(9) *Substantially affects a rare, threatened or endangered species, or its habitat.*
The current vacant gravel-filled parcels and the adjacent parcels contain no identified rare, threatened, or endangered species of terrestrial fauna or avifauna.

(10) *Detrimentally affects air or water quality or ambient noise levels.*
General short-term impacts associated with construction have been identified in this EA. Mitigation measures which are outlined in this EA will be applied during the on-going

construction activity of the 280 Beach Walk. No detrimental long-term impacts to air, water, or acoustic quality are anticipated with the proposed renovations.

(11) *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.*
The 280 Beach Walk property lies within the AO flood zone and lies outside of the designated tsunami zone. The proposed renovations will comply with the necessary design requirements and building codes within the flood district.

(12) *Substantially affects scenic vistas and view-planes identified in county or state plans or studies.*
The proposed project entails the construction of a two-story structure. Visual access to the mountains and the sea from mauka-makai roadways or from identified visual corridors will not be impacted by the project.

(13) *Require substantial energy consumption.*
The ~~34,500~~ 34,199 SF retail building would increase power consumption in the Waikīkī area. However, the selection of energy-efficient systems for air-conditioning, lighting, water hearting, and motorized equipment will help to reduce consumption needs and lower overall operational costs.

SECTION 7.0

Consulted Parties, Agencies, Organizations and Individuals Receiving Copies of the EA

7.0 CONSULTED PARITIES, AGENCIES, ORGANIZATIONS AND INDIVIDUALS

Respondents and Distribution	Pre-consultation or Notice of Presentation	Pre-consultation Comments Received	Draft EA	Draft EA Comments Received	Final EA
State Agencies					
Department of Land and Natural Resources (DLNR)	X		X (5)	X	X
DLNR – Office of Conservation and Coastal Lands	X		X		X
DLNR- State Historic Preservation Division	X		X		X
Department of Health			X (3)	X	X
Department of Transportation			X	X	X
Office of Environmental Quality Control	X		X		X(4)
Office of Hawaiian Affairs	X		X	X	X
State Department of Business, Economic Development & Tourism, Office of Planning	X		X		X
City and County of Honolulu					
Board of Water Supply			X	X	X
Department of Design and Construction	X	X	X	X	X
Department of Planning and Permitting	X	X	X (5)	X	X
Department of Environmental Services	X		X		X
Department of Facility Maintenance			X	X	X
Department of Transportation Services			X	X	X
Department of Parks and Recreation			X	X	X
Honolulu Police Department			X	X	X
Honolulu Fire Department			X	X	X
Elected Officials					
State Senator Gordon Trimble	X	X	X		X
State House Representative Tom Brower	X		X		X
State House Representative Scott Y. Nishimoto	X	X	X		X
Council District Representative Charles Djou	X	X	X		X
Libraries					
Waikīkī-Kapahulu Public Library			X		X

Respondents and Distribution	Pre-consultation or Notice of Presentation	Pre-consultation Comments Received	Draft EA	Draft EA Comments Received	Final EA
Citizen Groups, Individuals & Consulted Parties					
Hawaiian Electric Company			X	X	X
Hawaiian Telecom			X	X	X
Waikīkī Neighborhood Board (NSNB) No. 9, Robert Finley (Chair)	X		X	X	X
Waikīkī Improvement Association, Patricia Tam (Chair)	X		X		X
RGM Trust	X		X		X
Ronald Petty	X		X		X
Jay Shidler	X		X		X
Saratoga Partners, LLC	X		X		X
Dyer Beach Walk Holdings, LLC	X		X		X
Sorensen Family	X		X		X
Florence T. Cooper	X		X		X
Nomura Financial, LTD	X		X		X
Nancy Walker	X		X		X
Saratoga Apt-Hotel, Inc.	X		X		X
Marie Lee Trust	X		X		X
Urasenke International, Inc.	X		X		X
Hale Koa Hotel			X		X

SECTION 8.0
References

8.0 REFERENCES

Carlquist, Sherwin (1992). *Hawai'i: A Natural History*. Pacific Botanical Garden: Lawai, Kaua'i, Hawai'i.

City and County of Honolulu, Planning Department (1992). General Plan for City and County of Honolulu.

City and County of Honolulu, Department of Planning and Permitting (2005). GIS Database: ftp://gisftp.hicentral.com/LayrZips/

City and County of Honolulu, Department of Planning and Permitting (2002). Waikīkī Special District Guidelines.

Foote, Donald E., et al. (1972). *Soil Survey of Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lāna'i, State of Hawai'i*. Washington D.C.: U.S. Government Printing Office.

Outrigger Waikīkī Beach Walk Final Environmental Impact Statement. 2002. Volumes I and II. Prepared by Group 70 International, Inc.

State of Hawai'i, Department of Business, Economic Development, and Tourism (DBEDT) (2005). Annual Visitor Research Report. http://www.hawaii.gov/dbedt/info/visitor-stats/visitor-research/

State of Hawai'i, DBEDT, Office of Planning (OSP).http://www.state.hi.us/dbedt/gis/download.htm

State of Hawai'i, DBEDT, OSP, Coastal Zone Management Program (1996). Hawai'i's Coastal Nonpoint Pollution Control Program Management Plan, Volume I.

State of Hawai'i, Land Use Commission (2005). District Boundary Map for O'ahu. http://luc.state.hi.us/maps/oahu_25.pdf

U.S. Geological Survey (1983). Topographic Quadrangle Maps - O'ahu.

Vanderwerf, Eric. 2003. *Distribution, Abundance, and Breeding Biology of White Terns on O'ahu, Hawai'i*. Wilson Bulletin. 115(3), 2003, pp.258-262.

APPENDIX A

Pre-Consultation Handout & Comments Received, and Draft EA Comment Letters and Provided Responses

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Alvin Sakutori
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

January 22, 2007

Subject: Pre-Consultation for Draft Environmental Assessment
280 Beach Walk Retail Development
TMK: (1) 2-6-003: 026; 027; 048; 049; 058 (Waikīkī, O'ahu, Hawai'i)

Dear Participant:

On behalf of First Round Pacific, LLC, Group 70 International, Inc. is currently undertaking the preparation of a Draft Environmental Assessment for the proposed development project in Waikīkī. We are beginning with a pre-consultation process to consult agencies and other interested parties regarding the proposed project. Enclosed for your review and comment is a handout providing the project summary and overview of the 280 Beach Walk Retail Development project.

Please provide comments via telephone, email, fax, or U.S. Mail regarding the scope of our assessment. We would like to receive these comments no later than February 2, 2007.

Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, HI 96813-4307
Attn: Kāwika McKeague
Tel: (808)-523-5866 Ext. 149
Fax: (808)-523-5874
Email: kmckeague@group70int.com

Thank you for your participation in the pre-consultation for this environmental review process.

Sincerely,
GROUP 70 INTERNATIONAL, INC.

Kāwika McKeague
Senior Planner

Enclosures

CC: Cory Beall, Cory LLC
William Paluch, Eight Honolulu, LLC

1.0 INTRODUCTION

1.1 PROJECT INFORMATION SUMMARY

Type of Application:	Environmental Assessment (EA)
Applicant/Land Owner:	First Round Pacific, LLC Cory, LLC: Agent 4901 Kalani'ana'ole Highway Honolulu, Hawai'i 96821 Contact: Cory Beall Telephone: (808) 542-9846
Accepting Authority:	City and County of Honolulu Department of Planning and Permitting, Urban Design Branch 650 South King Street Honolulu, Hawai'i 96813 Telephone: (808) 527-5369
Name of Action:	280 Beach Walk Proposed Retail Development
Agent:	Group 70 International, Inc. 925 Bethel Street, 5th Floor Honolulu, Hawai'i 96813 Contact: Kāwika McKeague Telephone: (808) 523-5866
Project Location:	Waikīkī, O'ahu, Hawai'i
Tax Map Key:	TMK (1) 2-6-003: 026 (Joint Development Agreement) TMK (1) 2-6-003: 027 (Joint Development Agreement) TMK (1) 2-6-003: 058 (Utility Easement) TMK (1) 2-6-003: 048 (Existing Parking Structure) TMK (1) 2-6-003: 049 (Parking/Loading Access Easement)
Land Area:	TMK (1) 2-6-003: 026/027 - 21,394 square feet (SF) TMK (1) 2-6-003:058 - 2,710 SF TMK (1) 2-6-003:048 - 6,272 SF TMK (1) 2-6-003:049 - 4,880 SF TOTAL Land Area - 35,256 SF (0.81 acres)
State Land Use District:	Urban District (U)
City / County Zoning:	Waikīkī Special District, TMK (1) 2-6-003:026 Resort Commercial Precinct TMK (1) 2-6-003:027 Resort Mixed Use Precinct TMK (1) 2-6-003:048/ 049 Resort Commercial Precinct

City / County Development Plan:	Primary Urban Center - Resort Mixed Use
SMA:	Location outside of the SMA, no action required
Flood Zone:	FIRM Zone AO (+2 feet)
Anticipated Determination:	Finding of No Significant Impact (FONSI)

1.2 OVERVIEW OF PROPOSED PROJECT

First Round Pacific, LLC is proposing a retail development, which will be known as 280 Beach Walk. The project is situated on approximately 0.81 acres on the island of O'ahu, in the moku (district) of Kona, within the ahupua'a of Waikīkī. The project site area is an approximately 35,256 square foot property located near the north end of the elongated block bounded by Kālia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. The project area is presently a largely empty lot that includes a two-level parking garage, a permanent access easement and, until recent demolition, low-rise buildings, including the site of the Hula Hut Restaurant.

Envisioned as a subtle yet important piece to the ongoing revitalization effort within the Waikīkī corridor, the proposed project will contribute to an emerging trend of redevelopment that defines a key gateway experience to the State's largest investment in the tourism industry. The design of the new building will orient each of the project's retail units to directly face Kalākaua Avenue. Rental units with direct access from the street will coexist with a second floor restaurant and outdoor dining experience in a building design that intends to reflect the diversity that makes Waikīkī special and unique. The building design and appurtenant landscaping will comply with the requirements of the Waikīkī Special District Design Guidelines in a manner that creates strong visual ties to the activity along Kalākaua Avenue from the Beach Walk corridor.

The project area includes the following Tax Key Map (TMK) parcels: TMK 2-6-003: 026, 027, 048, 049 and 058. While all the parcels are defined within a Joint Development Agreement (JDA), parcels 026 and 027 are the primary properties subject to redevelopment and are thus the focus of this environmental review. The project area proposed for development consists of a 34,500 square foot retail building comprising two floors containing six leased retail and restaurant spaces on parcels 026 and 027. The proposed development includes a series of two-story storefronts, accentuated with a vivid glazed-tile roof form that captures the street-oriented building expressions and traditions reminiscent of Honolulu's earliest places of commerce. The proposed height of the building's roof ridge is 50 feet, a dimension that closely references the existing conditions of the adjacent Burberry and Hawaiiana Hotel buildings.

An existing two-level parking structure occupies Parcel 048. Portions of the parking structure, its entrance and exit, are located on Parcel 049, which is not owned by First Round, LLC. Access via a perpetual access easement is secured between First Round, LLC and the adjoining property owner. The easement will continue to be utilized as a means for parking access as well as for access to a new loading dock for the proposed development. An existing ramp to the lower level of the structure is proposed to be relocated in order to allow vehicle access to the new loading dock of 280 Beach Walk. Parcel 058 is a utility easement. These three parcels will receive minor site and surface improvements in support of the parking, loading, and circulation requirements for the proposed project on parcels 026 and 027.

The surrounding area is heavily developed with commercial properties including extensive street-front retail, residential condominium high-rise structures, hotels, and public parking areas. Specifically, the proposed development is located adjacent to the Burberry Store and the Hawaiiana Hotel. A public landscape area and the ANA Office building are located directly across Beach Walk to the east of the project site. Within one block of the site area are newer developments such as the Outrigger Waikīkī Beachwalk, Trump Tower, the Royal Hawaiian Shopping Center, and retailer's such as Tiffany's, Coach, Channel, and Tod's.

Based upon preliminary review of historical photographs, maps, and land use records, the proposed development site had been used for a mixture of commercial, residential, and hospitality properties since prior to 1914. Most recently, the parcels of the JDA were occupied by a residential apartment-hotel building on parcel 027, and the Hula Hut restaurant on parcel 026. In 2000, the residential building on parcel 027 was demolished. Similarly, the restaurant building located on parcel 026 was demolished in 2004. Both parcels have remained vacant since that time. Currently, parcels 026 and 027 are gravel-covered vacant lots surrounded by a chain link fence.

1.3 HRS, CHAPTER 343 ENVIRONMENTAL ASSESSMENT PROCESS AND COUNTY REVIEW PROCESS

In accordance with the requirements of Chapter 343, Hawai'i Revised Statutes, a Draft EA is being prepared as the proposed project is located within the City and County of Honolulu Waikīkī Special District. Upon completion, the Draft EA will be submitted to the State Office of Environmental Quality and Control (OEQC). A notice of the Draft EA will then be published in the Environmental Notice, which will also commence a 30-day public review period.

The Draft EA will be presented in eight sections and will include the following content: a detailed summary and project description; a description of the environmental setting; a section that identifies potential impacts and prescribed mitigative measures on identified natural, cultural, socioeconomic resources as well as project demands on existing infrastructure; a description and analysis of alternatives; a discussion of the project's relationship to State and County land designations; the anticipated determination and reasons for its believed outcome; a list of necessary permits and approvals; an updated list of agencies, organizations, and individuals that participated in the pre-consultation phase of the Draft EA and that received copies of the Draft EA; and a list of references cited or used in developing the Draft EA.

After the 30-day review period of the Draft EA has been completed, public comment received will be considered and addressed, as appropriate. A Final EA will then be prepared, highlight key areas of the document that were revised, updated, or modified based upon information received during the public comment period.

Upon acceptance of the Final EA, a Finding of No Significant Impact (FONSI) is anticipated. A Special District (Major) use application would then be filed with the City and County of Honolulu Department of Planning and Permitting, Urban Design Branch for review and approval, as per the requirements of the Revised Ordinances of Honolulu, Chapter 21 (Land Use Ordinance), Article 9 (Special District Regulations). Construction would begin immediately after the issuance of the Special District (Major) use permit and other ministerial permits.

1.4 AGENCIES AND PUBLIC CONTACTED DURING THE PRE-CONSULTATION AND DRAFT EA REVIEW PERIODS

A list of agencies and other parties that were presented notice of the proposed development or will be contacted for input and comment regarding the proposed project prior to the publication of the Draft EA is provided below.

Federal & State Agencies
Department of Business, Economic Development & Tourism, Office of Planning
Department of Land and Natural Resources (DLNR), Director's Office
DLNR, Office of Conservation and Coastal Lands
DLNR, State Historic Preservation Division
Office of Environmental Quality Control
Office of Hawaiian Affairs

City and County of Honolulu
Department of Planning & Permitting
Department of Design & Construction
Department of Environmental Services

Elected Officials
State Senator Gordon Trimble
State House Representative Scott Y. Nishimoto
Council District Representative Charles Djou

Other Parties and Associations
Waikīkī Neighborhood Board Association No. 9, Robert Finley (Chair)
Waikīkī Improvement Association, Patricia Tam (Chair)
RGM Trust
Ronal Petty
Jay Shidler
Saratoga Partners, LLC
Dyer Beach Walk Holdings, LLC
Sorensen Family
Florence T. Cooper
Nomura Financial, LTD
Nancy Walker
Saratoga Apt-Hotel, Inc.
Marie Lee Trust
Urasenke International, Inc.

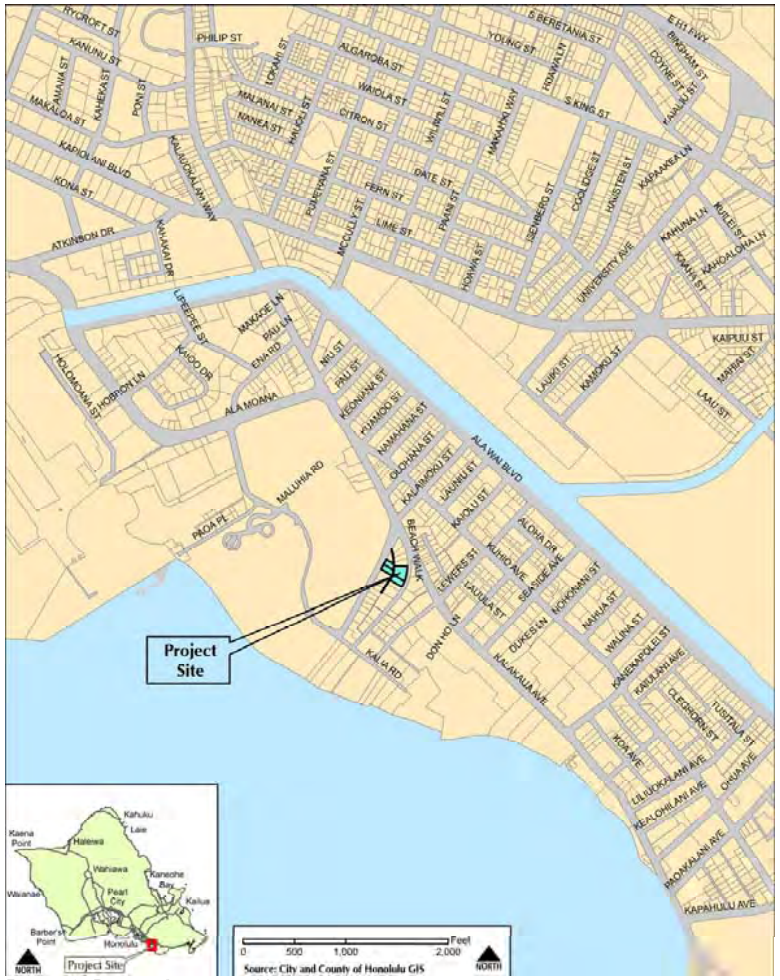


FIGURE 1: PROJECT LOCATION MAP

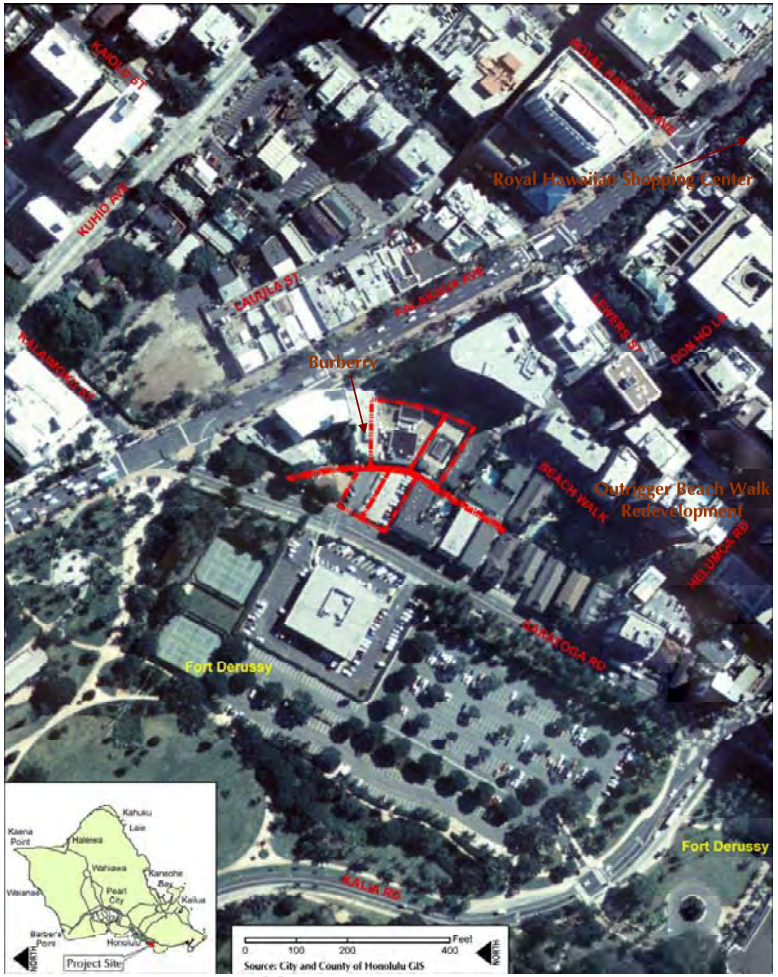


FIGURE 2: AERIAL MAP OF WAIKĪKĪ AREA WITH OUTLINED PROJECT BOUNDARY

FIGURE 3: TAX MAP KEY AND PROPERTY BOUNDARY MAP

FIGURE 4: EXISTING SITE CONDITIONS

FIGURE 5: CONCEPT RENDERING OF PROPOSED 280 BEACH WALK RETAIL DEVELOPMENT

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

EUGENE C. LEE, P.E.
DIRECTOR
CRAIG I. NISHIMURA, P.E.
DEPUTY DIRECTOR

RECEIVED
FEB - 7 2007
GROUP 70 INT'L

February 6, 2007

Mr. Kawika McKeague
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. McKeague:

Subject: Pre-Consultation for Draft Environmental Assessment
280 Beach Walk Retail Development
TMK: (1) 2-6-003: 026; 027; 048; 058
Waikiki, Oahu, Hawaii

Thank you for giving us the opportunity to comment on the above Pre-Consultation for Draft EA, 280 Beach Walk Retail Development.

The Department of Design and Construction has the following comment (s):

- A sewer connection application should be submitted to the Department of Planning and Permitting, Site Development Division, Wastewater Branch to determine adequacy of the existing lines.

Should there be any questions, please contact Jay Hamai, Assistant Chief, Wastewater Division, at 527-5037.

Very truly yours,

Eugene C. Lee, P.E.
Director

ECL:lt (192099)

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Stephen H. Kelly, AICP
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Alvin Sakutori
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

March 01, 2007

Mr. Eugene C. Lee, P.E.
Deputy Director
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, HI 96813

Subject: Pre-Consultation Comments for Draft Environmental Assessment
280 Beach Walk Retail Development

Dear Mr. Lee,

Thank you for your comment letter dated February 6, 2006 concerning the Pre-Consultation for the Draft Environmental Assessment (EA) of the 280 Beach Walk Retail Development Project.

As noted in your comment letter, a sewer connection application has been submitted by the project engineer to the County Department of Planning and Permitting, Site Development Division, Wastewater Branch to determine the adequacy and available capacity of the existing sewer line. Analysis of project demand and available capacity will be disclosed in the Final EA upon receipt of the department's determination.

Upon completion, we will be providing your office with a copy of Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Kawika McKeague
Senior Planner

cc: Sharon Nishiura
William Paluch

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743
DEPT. INTERNET: www.honoluludpp.org • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

RECEIVED
FEB 13 2007
GROUP 70 INT'L

2007/ELOG-183(sn)

February 9, 2007

Mr. Kawika McKeague
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. McKeague:

Subject: Pre-Consultation for Draft Environmental Assessment
280 Beachwalk Retail Development
270 and 286 Beach Walk Street - Waikiki
Tax Map Key 2-6-3: 26, 27, 48, 49 and 58

This responds to your request for comments on your preparation of a Draft Environmental Assessment (DEA) for the above project. Our comments are as follows:

1. Address the issues raised in the enclosed February 6, 2007 letter.

2. All of the above parcels are jointly developed under Conditional Use Permit (CUP) No. 2000/CUP-84, not only Parcels 26 and 27. Therefore, all of the lots in the joint development must be included and described in the DEA, since they comprise a "single zoning lot" for development purposes.

3. The proposed development will require a Waikiki Special District Permit – Major.

Should you have any questions, please contact Sharon Nishiura of our staff at 523-4256.

Very truly yours,

for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:pl
Encl.

Doc. 514571

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743
DEPT. INTERNET: www.honoluludpp.org • INTERNET: www.honolulu.gov

COPY

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

2006/ELOG-3162(sn)

February 6, 2007

Mr. William Paluch
Eight Inc.
55 Merchant Street, Suite 1420
Honolulu, Hawaii 96813

Dear Mr. Paluch:

Subject: Preliminary Review and Comment
280 Beachwalk Development
270 and 286 Beach Walk Street - Waikiki
Tax Map Key 2-6-3: 26, 27, 48, 49, and 58

This responds to your December 6, 2006 letter, regarding the above project:

Environmental Assessment (EA)

As stated in our letter of December 21, 2006, an environmental assessment (EA) will be required for the proposed project.

Project Boundaries and Improvements

The above lots are jointly developed under Conditional Use Permit (CUP) No. 2000/CUP-84. A joint development permits two (2) or more adjacent subdivided lots to be developed as a single or unified project; i.e, as a single zoning lot. In our letter of October 27, 2006, we requested clarification on whether all the lots would continue to be jointly developed, including a more detailed explanation on the proposed improvements and use for each lot. You indicate that the joint development will remain, but that the lots will be divided into two (2) separate projects – an application for Waikiki Special District Permit (Major) will be submitted for the proposed improvements on Parcels 26 and 27, and a separate application for Waikiki Special District Permit (Minor) will be submitted for proposed improvements on Parcels 48, 49, and 58.

We are unable to confirm the need for two separate applications, since the proposed improvements were not fully disclosed in the submittal. Regardless, if the lots are to remain jointly developed, then all the lots must be included in each application. Also, as explained in our October 27, 2006 letter, a special district permit (Major) will be required for the construction of a new building on Parcels 26 and 27. If Parcels 48, 49, and 58 are essential to the

development of the new building, including access, parking and loading spaces, they must remain jointly developed and be included in the special district permit (Major) application.

If the lots are not to be jointly developed, the applicant must apply for dissolution of the joint development by minor modification of the CUP. The applicant must show that the individual lots can independently meet the applicable zoning standards and regulations. The lots must also comply with conditions of Variance No. 2002/VAR-42, which allowed the subdivision of a conforming lot into two (2) lots, one (1) of which lacked the minimum lot area. The EA should address these issues, as well as clearly identify the project boundaries and the proposed improvements.

Compliance with Land Use Ordinance (LUO) Requirements

Please note that we will only offer preliminary comments regarding the proposed project's compliance with the LUO. These comments should not be construed as an endorsement of any submitted alternative diagram. A further review of the project's compliance with the LUO, including potential final designs, will be completed during the environmental review process and applications for a Waikiki Special District Permit and/or building permit.

- We did not review or confirm the FAR and open space calculations. The development standards, including the FAR and open space calculations, will be dependent on the lots involved in the proposed project, especially since it appears that Parcel 58 is split-zoned Resort Commercial Precinct and Resort Mixed Use Precinct.

- Under LUO Section 21-4.50, district or precinct boundary lines may be ignored only for the purpose of <u>yard</u> and <u>height</u> requirements, provided the use is common to the districts or precincts. However, under a joint development, other LUO requirements, such as the open space requirement for the subdivision lot zoned Resort Mixed Use, may be met on any of the subdivision lots that comprise the joint development "zoning lot", including a lot zoned Resort Commercial Precinct. Please note, for example, that an area provided for open space must meet the LUO definition of open space as well as the Waikiki Special District design guidelines for open space, wherever it is located.

- The LUO requires that, except for necessary access drives and walkways, all yards be landscaped. It may be difficult to support the diagrams showing the various alternatives for the required landscaping or green space for the following reasons:

  - There appears to be a large number of storefront entry doors.
  - The proposed building could be set back farther from the front property line to allow alternative walkway layouts that would be more consistent with the LUO.
  - The transfer of the public right-of-way (sidewalk) to an on-site easement is not supportable for this project. In general, the relocation of the sidewalk to an on-site easement is more appropriate for projects that are located along major streets, as identified in the Waikiki Special District provisions, where the objectives include

contains underground existing utility lines, making it difficult to relocate the sidewalk onto the project site. Further, the new developments along Beachwalk, makai of the project site, are able to comply with requirements of the LUO without relocation of sidewalks.

We recommend that you proceed with the Draft EA and include the various designs as project alternatives, including a design that complies with the LUO requirements.

Should you have any questions, please contact Sharon Nishiura of our staff at 523-4256.

Very truly yours,

for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:nt

doc no. 512496

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Stephen H. Kelly, AICP
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Alvin Sakutori
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

March 01, 2007

Mr. Henry Eng, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Subject: Pre-Consultation Comments for Draft Environmental Assessment
280 Beach Walk Retail Development

Dear Mr. Eng,

Thank you for your comment letter dated February 9, 2007 concerning the Pre-Consultation for the Draft Environmental Assessment (EA) of the 280 Beach Walk Retail Development Project.

As indicated in your letter, the proposed project resides within the Waikīkī District and as such requires the approval of a Final EA, under the requirements of Hawai'i Revised Statutes, Chapter 343. Further, the project will also require a County Special District Permit (Major) application to be filed and approved by your department.

As the affected parcels are jointly developed, the EA explains the proposed improvement and uses for each parcel and will be evaluated as a "single zoning lot". Specific requirements to the Land Use Ordinance (LUO) are discussed in the EA. We anticipate that any identified concerns with the LUO requirements will be addressed, as appropriate, during the environmental review and completed during the application process for the Special District use application. The EA does provide an evaluation of alternative design considerations, including those requested in your attachment letter dated February 6, 2007.

Upon completion, we will be providing you with a copy of Draft EA for your review. We look forward to your input and continued participation during the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Kawika McKeague
Senior Planner

cc: Sharon Nishiura
William Paluch

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail@group70int.com

CITY COUNCIL

CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

Charles K. Djou
Councilmember, District IV
Chair, Zoning Committee
Phone: (808) 547-7004 / Facsimile: (808) 523-4220
Email: cdjou@honolulu.gov
Web: www.honolulu.gov/council/d4

January 31, 2007

Kawika McKeague
Senior Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. McKeague:

Thank you for your letter of January 23, 2007, concerning Pre-Consultation for Environmental Assessment of 280 Beach Walk Retail Development, for which I have no comments.

In the future, please contact me at the above-listed address if I can be of any assistance to you. Best wishes.

Aloha,

Charles K. Djou
Councilmember, District IV

CKD:smm

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Stephen H. Kelly, AICP
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Alvin Sakutori
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

March 01, 2007

Mr. Charles K. Djou
Councilmember, District IV
City and County of Honolulu
530 South King Street, #202
Honolulu, HI 96813

Subject: Pre-Consultation Comments for Draft Environmental Assessment
280 Beach Walk Retail Development

Dear Councilmember Djou,

Thank you for your comment letter dated January 31, 2007 concerning the Pre-Consultation for the Draft Environmental Assessment (EA) of the 280 Beach Walk Retail Development Project.

Upon completion, we will be providing you with a copy of Draft EA for your review. We look forward to your input and continued participation during the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Kawika McKeague
Senior Planner

cc: Sharon Nishiura
William Paluch

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
HERBERT S. K. KAOPUA, SR.
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF

LAVERNE T. HIGA, Ex-Officio
BARRY FUKUNAGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

February 26, 2007

Mr.Eric J. Torrate
Project Designer
Lyon Associates, Incorporated
841 Bishop Street, Suite 2006
Honolulu, Hawaii 96813

Dear Mr. Torrate:

Subject: Your Letter Dated February 8, 2007 Requesting the Availability of Water to the Proposed Retail and Restaurant Development in Waikiki, TMK: 2-6-3:26, 27

Thank you for your letter on the proposed retail and restaurant development on Beachwalk.

The existing water system is presently adequate to accommodate the proposed development. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of your building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

K. Shida

KEITH S. SHIDA
Principal Executive
Customer Care Division

Water for Life ... Ka Wai Ola

DEPARTMENT OF PLANNING AND PERMITTING

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET * HONOLULU, HAWAII 96813
Phone: (808) 527-5827 * Fax: (808) 523-4210

SEWER CONNECTION APPLICATION

APPLICATION NO.: **2007/SCA-0117** STATUS: **Approved with conditions**

DATE RECEIVED: **02/26/2007** IWDP APP. NO.:

PROJECT NAME: **Proposed Restaurant and Retail Spaces / Restaurant/Retail**

$54,153.00 Estimated Wastewater System Facility Charge*

LOCATION:

Zone	Section	Plat	Parcel		
2	6	003	026	**286 BEACH WALK ST**	**13,664** Sq. Ft.
2	6	003	027	**270 BEACH WALK ST**	**7,730** Sq. Ft.

SPECIFIC LOCATION: **270 & 286 Beach Walk St**

APPLICANT: **Lyon Associates, Inc., Mark Yonamine**
841 Bishop St. Suite 2006
Honolulu, HI 96813

DEVELOPMENT TYPE: **Restaurant** SEWER CONNECTION WORK DESIRED: **Existing**

OTHER USES: **250 seats/day ; max. 400 seating; Retail**

NON-RESIDENTIAL AREA: **19,900.00** s.f. APPROXIMATE DATE OF CONNECTION: **07/27/2008**

PROPOSED UNITS	EXISTING UNITS	UNITS TO BE DEMOLISHED
No. of New Units:	No. of Existing Units:	No. of Units to be Demolished:
Studios:	Studios:	Studios:
1-Bedroom:	1-Bedroom:	1-Bedroom:
2-Bedroom:	2-Bedroom:	2-Bedroom:
3-Bedroom:	3-Bedroom:	3-Bedroom:
4-Bedroom:	4-Bedroom:	4-Bedroom:
5-Bedroom:	5-Bedroom:	5-Bedroom:
6-Bedroom:	6-Bedroom:	6-Bedroom:

REMARKS **Approval is for a restaurant (250 seats/day) and a retail with 19,900 S.F. space.**

APPROVAL DATE: **03/06/2007**

EXPIRATION DATE: **03/05/2009**

Valid 2-years after approval date. Construction plans shall be completed and approved within this 2-year period. Construction shall commence within 1-year after approval of plans.
** Applicable WSFC shall be collected at the prevailing rate in accordance with ROH 1990, Chapter 14, Sections 14-10.3, 14-10.4, 14-10.5 and Appendix 14-D.*

REVIEWED BY: ***Arturo Saavedra Jr.***

A. Saavedra, Jr.
Site Development Division, Wastewater Branch

ExternalID: **025820716-001** JobId: **25820716**

Initial Print Date: Tuesday March 6, 2007 11:29 am

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
HERBERT S. K. KAOPUA, SR.
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF

LAVERNE T. HIGA, Ex-Officio
BARRY FUKUNAGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

February 26, 2007

Mr.Eric J. Torrate
Project Designer
Lyon Associates, Incorporated
841 Bishop Street, Suite 2006
Honolulu, Hawaii 96813

Dear Mr. Torrate:

Subject: Your Letter Dated February 8, 2007 Requesting the Availability of Water to the Proposed Retail and Restaurant Development in Waikiki, TMK: 2-6-3:26, 27

Thank you for your letter on the proposed retail and restaurant development on Beachwalk.

The existing water system is presently adequate to accommodate the proposed development. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of your building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

K. Shida

KEITH S. SHIDA
Principal Executive
Customer Care Division

Comment Letters Received During Draft EA Public Comment Period

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EPO-07-096

June 1, 2007

RECEIVED
JUN - 7 2007
GROUP 70 INT'L

Ms. Sharon Nishiura
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Ms. Nishiura:

SUBJECT: Draft Environmental Assessment for 280 Beach Walk Retail Development Project
Waikiki, Oahu, Hawaii
TMK: (1) 2-6-003: 026, 027, 048, 049, 058

Thank you for allowing us to review and comment on the subject application. The document was routed to the various branches of the Department of Health (DOH) Environmental Health Administration. We have the following Clean Water Branch, Clean Air Branch, Noise, Radiation & Indoor Air Quality Branch, and General comments.

Clean Water Branch

Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Anti-degradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You are required to obtain a National Pollutant Discharge Elimination System (NPDES)

permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the start of the construction activities.**

   b. Once through cooling water less than one (1) million gallons per day

   c. Hydro-testing water.

   d. Construction dewatering effluent.

   You must submit a separate NOI form for each type of discharge at least 30 days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

3. You must obtain an NPDES individual permit if there will be any other type of wastewater discharge not listed above from the proposed facilities. An application for an NPDES individual permit must be submitted at least 180 days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html

4. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements

contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at 586-4309.

Clean Air Branch

Control of Fugitive Dust

Fugitive dust emissions occur during all phases of construction and operations. Activities close to existing residences, businesses, public areas or thoroughfares can cause dust problems. For cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems. We recommend that the contractors operate under a dust control management plan. The plan does not require the Department of Health approval, however it will help with identifying and minimizing the dust problems from the proposed project.

Examples of measures that can be included in the dust control plan are:

a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
b) Providing an adequate water resource at the site prior to start-up of construction activities;
c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
d) Minimizing dust from shoulders and access roads;
e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
f) Controlling dust from debris being hauled away from the project site.

All activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. If you have any questions, please contact the Clean Air Branch at 586-4200

Noise, Radiation & Indoor Air Quality Branch

Project activities shall comply with the Administrative Rules of the Department of Health, Chapter 11-46, Community Noise Control. Should there be any questions, please contact Russell S. Takata, Environmental Health Program Manager, Noise, Radiation and Indoor Air Quality Branch, at 586-4701

General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CWB
CAB
NRIAQB
William Paluch, Eight Inc.
Kawika McKeague, Group 70 International, Inc

Enclosure: HAR 11-46, Community Noise Control

GROUP 70
INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Mile, AIA
George I. Atta, AICP
Charles Y. Kanesheio, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Subobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Kelvin H. Sunada, Manager
State of Hawai'i
Department of Health
Environmental Planning Office
P.O. Box 3378
Honolulu, HI 96801-3378

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Sunada:

Thank you for your comment letter (01 June 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (DEA). The following is offered in response to your comments.

Clean Water Branch
The proposed development area is approximately 0.81 acres. Therefore, a NPDES is not required since the total disturbed site is less than an acre.

Clean Air Branch
As discuss in the Section 3.10 (DEA), the expected air pollutant emissions generated on-site during the construction-period are due to vehicular movement, grading, concrete and asphalt batch, and general dust-generating construction activities. The proposed mitigation measures presented in the DEA employ dust control measures that consist of, but are not limited to, frequent watering of unpaved roadways and areas of exposed soil; providing an adequate water source at the site prior to start up of construction activity; and using dust fences adjacent to existing neighboring properties.

Construction activity will be in compliance with applicable provisions of the Hawaii Administrative Rules, Chapter 11-60.1. The mitigative measures provided in your comment letter will be considered in the preparation of a dust control management plan during the various phases of construction.

Noise, Radiation, & Indoor Air Quality Branch
Project construction and operation will be in compliance to applicable administrative rules related to Community Noise Control. As appropriate, muffler systems will be utilized on construction equipment to ensure permissible sound levels are maintained.

Further, the duration of allowable maximum sound levels will be monitored and adjusted as per regulatory requirements.

General
The project team will review the recommended Standard Comments on your website, and implement applicable comments as appropriate.

Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

LINDA LINGLE
GOVERNOR OF HAWAII

ALLAN A. SMITH
INTERIM CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

'07 MAY -8 AM 9:49

May 4, 2007

City & County of Honolulu
Department of Planning & Permitting
650 South King Street
Honolulu, Hawaii 96813
Attention: Sharon Nishiura

Office of Environmental Quality Control
235 South Beretania Street Suite 702
Honolulu, Hawaii 96813

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for the Proposed 280 Beach Walk Retail Development, Waikiki, Oahu, Tax Map Key: (1) 2-6-3:26,27,48,49,58

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources has no comment to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Dorina D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Russell Y. Tsuji, Administrator
State of Hawai'i
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Tsuji:

Thank you for the comment letter (04 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment.

Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

LINDA LINGLE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BARRY FUKUNAGA
DIRECTOR

Deputy Directors
FRANCIS PAUL KEENO
BRENNON T. MORIOKA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2510

June 5, 2007

'07 JUN -7 P2:45

Mr. Henry Eng, FAICP
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: 280 Beach Walk Retail Development
Draft Environmental Assessment (DEA)
TMK: 2-6-3: 26, 27, 48, 49, and 58

Thank you for requesting our review of the subject project.

We anticipate no significant impact to our State transportation facilities from the project.

We do wish to note, however, that we remain concerned and interested in the cumulative traffic impacts all of the upcoming projects (hotel/condominium/commercial) in the surrounding area will have on the east end of State Route 92 (Ala Moana Boulevard).

We appreciate the opportunity to provide our comments.

Very truly yours,

BARRY FUKUNAGA
Director of Transportation

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Mile, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Susobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Barry Fukunaga, Director
State of Hawai'i
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

SUBJECT: Response to Comments Provided for 280 Beach Walk Retail Development Draft Environmental Assessment TMK 2-6-003:026, 027, 048, 049, 058 Waikīkī, O'ahu, Hawai'i

Dear Mr. Fukunaga:

Thank you for your comment letter (05 June 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA).

We acknowledge your concern and interest to the cumulative impacts of all ongoing activities within the surrounding area on Route 92 (Ala Moana Boulevard). According to the findings in the Traffic Impact Assessment Report prepared for the Draft EA, approximately 40% of the total number of trips generated by the proposed development during both weekday PM and Saturday PM peak hours are conservatively assumed to be pedestrian trips. Projected peak hour traffic conditions along studied street corridors indicate that level of service will be slightly lower at only two intersections- a) the Kālia Road and Saratoga Road (eastbound, left-turn) intersection and b) the Kalākaua Avenue, Kalaimoku Street, and Saratoga Road (northbound, right turn). However, the remaining critical movements around these intersections are anticipated to continue operating at levels of service similar to without project conditions. Given the size and scale of the proposed development, we anticipate the contribution to traffic conditions within this area of Waikīkī will be minimal.

Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

PHONE (808) 594-1888

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

FAX (808) 594-1865

RECEIVED
'07 JUN 19 P3:51
DEPT OF PLANNING AND PERMITTING
CITY & COUNTY OF HONOLULU

HRD07/364E

June 8, 2007

Henry Eng
Department of Planning & Permitting
650 S. King Street, 7th Floor
Honolulu, HI 96813

RE: Draft Environmental Assessment for the Proposed 280 Beach Walk Retail Development, Waikīkī, O'ahu, TMK: 2-6-3: 26, 27, 48, 49 and 58.

Dear Mr. Eng,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 8, 2007 submission. We apologize for the delay in response and offer the following comments:

Although the applicant's archeological consultant claims to have conducted the most thorough Archaeological Inventory Survey in the history of Waikīkī, due to the number of excavated trenches-per-acre, our staff would like to point out that an inventory consisting 10 backhoe trenches, in an empty lot, may not be sufficient given the amount of known subsurface cultural resources of Waikīkī. This is coupled with the fact that, as found on Page 3-23 of the Draft Environmental Assessment, "hand excavation was not extensively utilized" during the course of the survey.

Being that a Draft Environmental Assessment is a decision making document, it is crucial that it contain as much thorough and reliable information as possible. Historic properties and human burials encountered during archaeological monitoring are often not afforded much protection at all. In fact, if they are found within the construction footprint during the course of construction related activities, they are almost invariably disinterred. This being the case, our staff recommends that a much more thorough inventory, utilizing machine-assisted hand excavation, be conducted in support of the environmental review process.

OHA asks that, in accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if the project moves forward, and if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division (SHPD/DLNR) shall be contacted.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Native Rights Policy Advocate, at (808) 594-0239 or jessey@oha.org.

Aloha,

Clyde W. Nāmu'o
Administrator

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobri Halim
Roy A. Inouye, AIA, CSI
Cara Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polsenhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 6, 2007

Mr. Clyde Nāmu'o, Administrator
State of Hawai'i
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, HI 96813

SUBJECT: Response to Comments Provided for 280 Beach Walk Retail Development Draft Environmental Assessment TMK 2-6-003:026, 027, 048, 049, 058 Waikīkī, O'ahu, Hawai'i

Dear Mr. Nāmu'o:

Thank you for your comment letter (08 June 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment. The following is offered in response to your comments.

We acknowledge the importance and sensitivity to be proactive in the identification and assessment of potential historical resources within the Waikīkī urban core, specifically given the past precedence of encounters of other development projects with wahi kanu and iwi kūpuna.

In response to the sensitivity to the potential of human burials within Waikīkī, an increased percentage of the project area was surveyed. In evaluating other previously conducted archaeological work in Waikīkī, Cultural Surveys Hawai'i, the contract archeological firm hired for this project, had determined that.10 to 1.5 percent of an area's acreage was the range surveyed. For 280 Beach Walk, approximately 2.44% of the immediate parcels of concerns were tested, resulting in one of the most intensive subsurface investigations in Waikīkī.

For this survey, eleven backhoe trenches were randomly spaced and dug to a depth of 1.5 to 2.0 meters. Hand excavation in sand deposits was specifically undertaken to identify potential burial deposits. When sandy deposits were noted during excavation of the backhoe trench and were believed to be of sufficient depth, mechanical excavation stopped and an archaeologist entered the trench. Excavation continued by hand when Jaucus Sand deposits were identified. Because of the thick layers of fill and thin layers of pond sediment that were nearly ubiquitous throughout the project area, hand excavation was not extensively utilized. It should be noted that the discovered stratigraphy is indicative of the known land use history of the project area being part of the former fishpond system that was subsequently filled in with the building of Fort DeRussy and the Ala Wai Canal. The only subsurface resources found during the survey included basalt lithics, a green glass bottle, and diffuse trash.

We believe that the level of investigation for potential subsurface historical resources is demonstrative of the owner's due diligence. We anticipate that the State Historic Preservation Division (SHPD) will concur with the findings and summary in its review of the Archaeological Assessment. We will continue to coordinate with SHPD in the event additional mitigation is deemed necessary.

Your comment letter and this response will be included in the Final Environmental Impact Statement. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta, AICP
Principal, Chief Community Planner

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

RECEIVED
'07 MAY -9 P3:52
CITY & COUNTY

MUFI HANNEMANN, Mayor

RANDALL Y. S. CHUNG, Chairman
SAMUEL T. HATA
ALLY J. PARK
ROBERT K. CUNDIFF
MARC C. TILKER

LAVERNE T. HIGA, Ex-Officio
BARRY FUKUNAGA, Ex-Officio

CLIFFORD P. LUM
Manager and Chief Engineer

DEAN A. NAKANO
Deputy Manager and Chief Engineer

May 8, 2007

TO: HENRY ENG, FAICP, DIRECTOR

FROM: KEITH S. SHIDA, PRINCIPAL EXECUTIVE
CUSTOMER CARE DIVISION K. Shida

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR 280 BEACHWALK RETAIL DEVELOPMENT

The existing water system is presently adequate to accommodate the proposed development. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of your building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

The construction drawings should be submitted for approval.

If you have any questions, please contact Robert Chun at 748-5443.

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Mik, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halmi
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNak, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangoman
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Keith S. Shida, Principal Executive
City and County of Honolulu
Board of Water Supply
Customer Care Division
630 South Beretania Street
Honolulu, HI 96843

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Shida:

Thank you for the comment letter (08 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment.

We acknowledge your assessment that the existing water system is adequate to accommodate the proposed development. We further recognize that the Board of Water Supply reserves the right to change its position until the building permit application has been approved.

The applicant will pay the necessary fees for water resource development, transmission, and daily storage.

Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

LUPD ?

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) 523-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

EUGENE C. LEE, P.E.
DIRECTOR

CRAIG I. NISHIMURA, P.E.
DEPUTY DIRECTOR

CITY & COUNTY OF HONOLULU
'07 MAY 18 P 3:47
RECEIVED

May 18, 2007

MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: EUGENE C. LEE, P.E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, 280 BEACH WALK RETAIL DEVELOPMENT

Thank you for giving us the opportunity to comment on the above Draft Environmental Assessment.

The Department of Design and Construction has the following comment:

- **3.14.3 Wastewater Disposal** – "The Proposed 4" sewer line lateral will connect to the existing manhole." **The minimum size should be a 6" sewer line lateral.**

Should you have any questions, please contact Jay Hamai at 768-8799.

ECL:lt (207285)

c: DDC Wastewater Division

GROUP 70
INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Rudolo, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cacola, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Poliurinom, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Eugene C. Lee, P.E., Director
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Floor
Honolulu, HI 96813

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Lee:

Thank you the comment letter (18 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA).

We have revised the Final EA to reflect that the proposed sewer line lateral should be 6" rather than the previously stated 4".

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU
1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 692-5054 • Fax: (808) 692-5857
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR

LAVERNE HIGA, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 07-470

RECEIVED
'07 JUN -1 P2:57
CITY & COUNTY OF HONOLULU

May 31, 2007

MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

Laverne Higa

FROM: LAVERNE HIGA, P.E., DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF FACILITY MAINTENANCE

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
280 BEACH WALK RETAIL DEVELOPMENT

Thank you for the opportunity to review and comment on the DEA, dated April 2007, for the subject development. Returned for your use is the DEA.

The development proposes to create open green space within the City right-of-way sidewalk area along Beach Walk and transfer the pedestrian right-of-way for public use to an on-site easement. It should be understood that maintenance and repairs to the on-site pedestrian easement shall be the responsibility of the property owner.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 484-7697.

Attachment

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Carni Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Ms. Laverne Higa, P.E., Director
City and County of Honolulu
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, HI 96707

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Ms. Higa:

Thank you for your comment letter (31 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA)

We are optimistic that as the project proceeds through the Special District Permit (Major) process, the merits of the preferred design will be recognized and supported. If so, the applicant understands that maintenance and repairs of the proposed on-site easement will be its responsibility.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
KAPOLEI HALE • 1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 692-5561 • FAX: (808) 692-5131 • INTERNET: www.honolulu.gov

2007/ED-5
2-6-3:26

MUFI HANNEMANN
MAYOR

LESTER K.C. CHANG
DIRECTOR

DANA TAKAHARA-DIAS
DEPUTY DIRECTOR

CITY & COUNTY PLANNING & PERMITTING
'07 MAY 29 P2:59
RECEIVED

May 25, 2007

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: LESTER K. C. CHANG, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
280 BEACH WALK RETAIL DEVELOPMENT

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the 280 Beach Walk Retail Development in Waikiki.

We have reviewed the DEA and have the following comments:

1. The landscape rendering depicted in Figure 2-2, 280 Beachwalk Ground Floor Plan does not identify the type of plant material proposed for the project.

   Avoid plant material that can cause sidewalk and/or curb damage. When the planting palette for the project has been determined, the Landscape Design Consultant shall submit plans to the Division of Urban Forestry (DUF) for review and approval.

2. Please confirm that the private property owner will be responsible for all costs for the maintenance, repair, and utility bills for water and electricity usage for the landscape, irrigation, lighting and street furniture improvements within the road right-of-way.

3. Note: Number 2 above shall be stated on the project plans and specifications.

4. Refer to the most current copy of the Department of Planning and Permitting STANDARDS AND PROCEDURES FOR THE PLANTING OF STREET TREES in the preparation of the construction document plans and specifications.

Should you have any questions, please contact Mr. John Reid, Planner, at 692-5454.

LESTER K. C. CHANG
Director

LKCC:mk
(207429)

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hiroshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yeen, AIA
Linda C. Mie, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruofola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Carrie Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kilwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Lester K.C. Chang, Director
City and County of Honolulu
Department of Parks and Recreation
1000 Uluohia Street, Suite 309
Kapolei, HI 96707

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Chang:

Thank you for your comment letter (25 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

1. Section 2.4 of the Final EA has been revised to include a basic landscape description for both the Front Yard and Parking Lot areas. The landscaping plan will be submitted to the Division of Urban Forestry (DUF) for review and approval. The plan will identify the type of plant materials to be used.

2. The owner will be responsible for maintenance and upkeep for the landscaped areas including provisions of water and electricity for landscaped plant materials and lighting and street furniture improvements.

3. A disclaimer indicating the Owner's responsibilities will be cited on landscaping plans.

4. The recommended standards and procedures for planting street trees will be referenced by the landscape architect and its applicable portions will be integrated into landscape design plans and subsequent submittals necessary for review and approval by DUF.

Your comment letter and this response will be included in the Final Environmental Impact Statement. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 527-6743
INTERNET: www.honolulu.gov • DEPT. WEB SITE: www.honoluludpp.org

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

2007/ED-5(sn)

June 7, 2007

Mr. Kawika McKeague
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. McKeague:

Subject: Chapter 343, HRS, Draft Environmental Assessment
280 Beach Walk Retail Development
First Round Pacific, LLC
270 and 286 Beach Walk and 321 Saratoga Road - Waikiki
Tax Map Key 2-6-3: 26, 27, 48, 49 and 58

Transmitted for your response and incorporation into the Final Environmental Assessment (EA) are comments on the Draft EA received, thus far, by the Department of Planning and Permitting (DPP). In accordance with the provisions of Chapter 343, Hawaii Revised Statutes, you must respond, in writing, to these and any other comments that were submitted during the 30-day comment period (which began with the publication of a notice of availability of the Draft EA in The Environmental Notice on May 8, 2007). The Final EA must include these comments and responses, as well as the revised text, where needed.

Also, the following are the DPP's comments on the Draft EA.

1. Introduction

   a. Identify the landowner of Parcel 49, which we understand is different from the landowner of the rest of the parcels.

   b. Correct the land area for Parcel 49 per Subdivision No. 2003/SUB-48.

   c. Identify the zoning district for Parcel 49.

   d. The project site is designated "District Commercial" on the Development Plan (DP) Land Use Map for the Primary Urban Center, which includes primary retail and office complexes located along arterial streets.

2. Project description

   a. Clarify that all of the parcels are jointly developed and not only Parcels 26 and 27. Also, explain the need for a perpetual access easement from the owner of Parcel 49 to access Parcels 48 and 26 since all of the parcels are already jointly developed under Conditional Use Permit No. 2000/CUP-84.

   b. Provide clearer conceptual plans. Several plans were blurry and difficult to understand. Also, the plans should reflect the required transitional height setbacks, the ingress and egress to the site, internal circulation and the parking and loading areas.

   c. Clarify what is meant by "green space." It would be helpful to use the Land Use Ordinance (LUO) terminology of open space, required landscaping and required yards if the green space refers to any of those standards.

   d. If green space is the amount of landscaping, then it appears that Figures 2-1 to 2-3 shows less green space and more pavement than the amount identified on Figure 2-11.

   e. As explained in a February 6, 2007 letter to a representative of the applicant, the transfer of the public right-of-way (sidewalk) to an on-site easement is not supportable for this project. The proposed building could be set back farther from the front property line to allow alternative walkway layouts that would be more consistent with the LUO. In general, the relocation of the sidewalk to an on-site easement is more appropriate for projects that are located along major streets, as identified in the Waikiki Special District provisions, where the objectives include providing a greener pedestrian experience and a buffer between the pedestrians and vehicular traffic. The existing right-of-way along Beach Walk is narrow and likely contains underground existing utility lines, making it difficult to relocate the sidewalk onto the project site. Further, the new developments along Beach Walk, makai of the project site, are able to comply with requirements of the LUO without relocation of sidewalks.

   f. If the sidewalk is transferred to an on-site easement, a subdivision application will be required to designate the pedestrian easement. The sidewalk must comply with ADA design guidelines. The sidewalk must also be designed such that it eliminates blind corners from alley ways and doors.

   g. The existing parking structure is part of the overall project and must be included in discussions throughout the EA, when applicable.

3. Off-street parking and loading

   a. Identify the number of existing and/or proposed off-street parking and loading spaces throughout the project site. Describe (e.g., square footage, number of parking spaces, operation) the parking structure.

   b. Estimate the number of off-street parking and loading spaces that will be required under the LUO for the proposed project and how/where the required spaces will be provided.

   c. Explain whether the existing parking structure will provide parking for other uses besides the new retail development.

   d. Discuss potential impacts (e.g., obstruction of the footpath, hazards to pedestrians, damage to the underground utilities from the heavy vehicles) that the loading activities may have on the existing access and utility easement, since delivery vehicles must cross the easement to reach the proposed loading space. Identify measures to mitigate potential impacts.

   e. Explain how it was determined that most deliveries will be made by small vehicles as opposed to larger vehicles. Will the applicant only rent to tenants who use small delivery trucks? If larger vehicles may be used, explain how the project will accommodate deliveries by large vehicles.

   f. Loading spaces must be situated and conveniently located such that all vehicular maneuvering occurs on-site and vendors providing goods and services to the site find it convenient to utilize the project's loading rather than conducting this activity on a public street. All internal driveways should be interconnected.

   g. Correct Figure 3-1. This figure relates to soils and not loading.

4. Drainage

   a. Describe how the project will comply with Section II (Storm Water Quality) of the "Rules Relating to Storm Drainage Standards" (i.e., post-construction BMPs).

   b. A drain connection license will be required to permit the connection of the proposed 12-inch drain line to the existing catch basin.

   c. Expand the discussion on surface drainage to explain that the vacant portion of the site was previously developed with commercial uses and, therefore, the current proposal should not effectively increase the potential surface runoff from the project site.

   d. Identify the permanent storm water quality measures that will be incorporated in the design and construction of the project, since it was mentioned that surface runoff will eventually end up in Class A waters.

5. Traffic

   a. The tables in the traffic impact analysis report (TIAR) do not appear to reflect the conditions associated with this development and may be the results of another study. If this is the case, adjust the tables accordingly. An updated TIAR may be required at the time of building permit if the project and/or driveway locations significantly change from what was originally presented.

   b. Adequate vehicular sight distance to pedestrians and other vehicles must be provided and maintained at all driveways.

   c. Construction plans for all work within and affecting City streets must be submitted for review. Traffic control plans during construction should also be submitted for review and approval. The progress schedule for this project must be closely coordinated with the other developments in the vicinity of this site to avoid any construction conflicts.

6. Wastewater. Identify the conditions of the approved Sewer Connection Application.

7. Cultural resources, archaeological and historical resources. The Final EA must include comments from the State Historic Preservation Division (SHPD) on the Cultural Impact Assessment and Archaeological Assessment included in the Draft EA. The Final EA must also address SHPD's comments.

8. Alternatives. Discuss a design scheme that complies with the LUO and its corresponding impacts. The alternative to maintain the existing sidewalk in its present location does not appear to comply with the LUO. For example, the LUO requires that the front yard be paved, except for necessary access drives and walkways. The front yard contains a significant amount of paving. Instead, an alternative which is more consistent with the LUO may be to set the building farther back from the front property line to allow alternative walkway layouts and larger landscaped areas.

9. Development Plan. Primary Urban Center (PUC) Development Plan (DP) Policies, Section 3.4.2.2 Visitor Facilities, promotes a vibrant and livable Waikiki, including improvements to the quality of the street environment for pedestrians, and the scale and design of buildings.

   a, The EA and proposal should address its Saratoga Road frontage and how the parking structure renovation will enhance the pedestrian experience along this mauka view corridor (Figure 3.1). Right-of-way landscaping should be provided to

enhance mauka views. Improvements including on-site landscaping and parking garage façade treatments should be provided to improve the streetscape.

b. The pedestrian and open space network in the Beach Walk area should be expanded as a desirable feature of the redevelopment of Waikiki, adding to its accessibility and livability (for visitors and residents). The proposal should include opportunities for street level activities and outdoor dining along Beach Walk.

10. LUO

a. Provide additional details, plans and/or preliminary calculations showing the project's compliance (including the existing parking structure) with the LUO, including the Waikiki Special District development standards and design guidelines. Provide specific details on how the project will promote the design guidelines of the special district, including the provision for a pedestrian-oriented experience and potential improvements to enhance the appearance of the existing parking on Parcels 48 and 49.

b. The LUO definition of lot area excludes right-of-way for ingress or egress in favor of others, which would include the pedestrian access easement.

c. A new Conditional Use Permit for off-site parking may be required.

11. Include a section listing all required permits and approvals.

Should you have any questions, please contact Sharon Nishiura of our staff at 768-8031.

Very truly yours,

Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:pl
Enclosures

Doc. 542917

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Guocia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halmi
Roy A. Inouye, AIA, CSI
Carri Kloster
Katherine M. MacNeil, AIA
Frank B. McGue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Henry Eng, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessmen
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Eng:

Thank you for your comment letter (07 June 2007) directed to our office for the 280 Beach Walk Retail Development Draft Environmental Assessment. The following is offered in response to your comments.

1. Introduction
   a. The landowner is RGM Trust and has been identified in the Final EA.
   b. The land area (4,888 square feet) for Parcel 49 has been corrected in the Final EA.
   c. Zoning for Parcel 049 is Resort Commercial and has been identified in the Final EA.
   d. The Final EA has been corrected to state the project is designated as "District Commercial" under the Primary Urban Center Development Plan.

2. Project Description
   a. Section 2.2 of the Final EA has been revised to clarify the nature and relationship of the five parcels in questions being developed. The discussion for the need of a perpetual easement has also been expanded.
   b. Figures in the Final EA have been replaced with higher resolution graphics and set to 11x17 for easier readability. The figures also highlight the additional requested information.
   c. The term "green space" was used in the context of "landscaped" area, as per Land Use Ordinance (LUO) definitions. The Final EA has been revised throughout to accurately define these spaces.
   d. Site plan figures have been revised in the Final EA to show consistent preferred use and development options, including depiction of landscaped areas.
   e. We respectfully acknowledge DPP's opinion that transferring the public right-of-way (ROW) to an on-site easement is not currently supportable. However, we are optimistic that as the plan moves forward to the Waikīkī Special District (WSD) (Major) Use permitting process, that the merits of the preferred design scheme can be the basis from which all other issues

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

of concern can be adequately addressed during the phase of design review. The existing utilities fronting the project site would not prohibit the relocation of the sidewalk. Any existing utilities such as fire hydrants or street lights would be in the landscaped area. The existing HECO vault at the northeast corner could remain and only the cover would have to be adjusted to provide a smoother surface connection.

f. If the preferred design scheme is accepted during the WSD permitting process, all subsequent and necessary applications, including a subdivision application, will be submitted. The proposed sidewalk can be designed to meet ADA requirements as well as proper measures for pedestrian safety.

g. We acknowledge that the existing parking structure is part of the overall redevelopment effort of project. Discussion of the proposed improvements and impacts from the improvements of the parking structure are included in the Final EA.

3. Off-street parking and loading
   a. All parking requirements will be maintained on-site. The existing agreement with the owner of Parcel 49 requires a provision of 26 stalls. Existing parking is a paid-for self-parking system with an attendant to collect parking fees and direct vehicle movements within a layout that is not-compliant with LUO standards and definitions. The existing parking structure and adjacent surface parking lot can accommodate a maximum of 47 standard size vehicles and does not provide any designated loading spaces.
   b. As stated in the Draft EA, there is a LUO provision to provide 16 parking spaces for the second floor restaurant. Loading and unloading activities are to occur on-site. The loading scheme includes the provision of 3 stalls.
   c. Parking provisions are being designed to meet the needs of the new retail-restaurant facility.
   d. The existing utilities within the existing access and utility easement have sufficient cover per City and County Standards and will not be damaged by vehicular traffic.
   e. The proposed loading area can accommodate Single-Unit (SU) type trucks.
   f. A delivery management plan has been designed to ensure that all loading and unloading activities occur on-site.
   g. Figure 3-1 is labeled correctly. However, in section 2.5 of the Draft EA we incorrectly referenced in the text description. The appropriate citation in the text should have referenced Figure 2-1 (Site Plan). The citation has been corrected in the Final EA. Further, Figure 2-1 has been reformatted to an 11X17 for easier readability and clarity.

4. Drainage
   a. The proposed project will use a flow-through based water quality control system to comply with the Storm Water Quality Requirements.
   b. A drain connection license will be obtained.

   c. The proposed project footprint is smaller than the building that previously existed and more landscape area is proposed along the frontage. The landscape area will allow percolation of surface runoff.
   d. The permanent flow-through based storm water quality control system proposed will be an Aqua Swirl type system.

5. Traffic
   a. As indicated on page 5 of the Traffic Impact Assessment Report (TIAR) (Appendix D), given the close proximity of the proposed project with the Outrigger Waikiki Beach Walk project, the existing conditions presented in the 280 Beach Walk TIAR are derived from the TIAR for the Waikiki Beach Walk development prepared by Wilbur Smith Associates in October 2004. This report detailed the existing traffic volumes and conditions for the surrounding roadway network. However, as indicated in the 280 Beach Walk TIAR, calculations for trip generation and distribution were conducted specifically with the proposed maximum built-out conditions for the proposed 280 Beach Walk retail-restaurant program. Since the completion of the TIAR, the proposed retail-restaurant program has been downscaled so the anticipated conditions are less than what was originally estimated in the TIAR.
   b. Maintenance of adequate sight distance is included as a recommendation in the TIAR (please reference Recommendation #3 in the TIAR).
   c. Construction plans, including traffic control plans, will be submitted to the City for review and approval.

6. Wastewater. A sewer connection approval was obtained by the City for 19,900 square feet of retail space and a 250 seats per day restaurant.

7. Cultural resources, archaeological, and historic resources. The Archaeological Assessment (AA) was submitted to the State Historic Preservation Division (SHPD) for its review and concurrence. As of this response letter, we have not received a formal letter regarding SHPD's review. We acknowledge that the Final EA should include the findings of SHPD in its review of the AA. Accordingly, the Final EA will address identified concerns related to cultural, archaeological, and historic resources. Unlike the AA, there is no statutory or administrative rule provision that requires a separate review process by SHPD for the Cultural Impact Assessment (CIA). The CIA and its findings were summarized within and provided for in its entirety as Appendix E in the Draft EA. As one of the review agencies for the 280 Beach Walk Environmental Assessment, a copy of the EA was provided to SHPD. SHPD did not provide a response to either the EA or the CIA during the public review period.

8. Alternatives. Figure 4-3 has been revised in the Final EA to provide clarity as to how the discussed alternative complies with the LUO.

9. Development Plan
   a. Section 5.5 of the Final EA provides further discussion as to how the proposed project conforms to the applicable policies of Primary Urban

Center Development Plan. Further, Section 2.4 has been revised to provide further description for landscaping in both the preferred and alternative design scenarios.

b. The curvilinear features of the front-yard scheme accents a pedestrian-friendly experience. The purpose for the proposed pedestrian circulation pattern is to create opportunities for street-level experiences to be fostered, including the possibility of outdoor dining activities.

10. LUO

a. A summary has been provided in Section 1.0 of the Final EA to elaborate on the design requirements that will need to be met in order for the project to comply with the County Land Use Ordinance development standards. Detailed design and development plans will be in accordance to the Waikīkī Special District Design Guidelines, the Livable Community Project and the applicable provisions of the Primary Urban Center Development Plan. Final development and detailed design plans will be submitted with the filing of the Waikīkī Special District (Major) Permit application.

b. Confirm with WP. We acknowledge that the definition of lot area excludes right-of-way for ingress or outgress in favor of others, including pedestrian access easement. This will be deleted from the lot area calculation.

c. It is our position that the necessary parking requirements for the proposed project can be met and maintained on-site.

11. Section 1.5 (Necessary Permits and Approvals) had been added to the Final EA.

Your comment letter and this response will be included in the Final EA. We appreciate your continued participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta, AICP
Principal, Chief Community Planner

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR

MELVIN N. KAKU
DIRECTOR

RICHARD F. TORRES
DEPUTY DIRECTOR

TP5/07-207309R

June 18, 2007

RECEIVED
'07 JUN 19 AM 10:21
DEPT OF PLANNING AND PERMITTING
CITY & COUNTY OF HONOLULU

MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: MELVIN N. KAKU, DIRECTOR

SUBJECT: 280 BEACH WALK RETAIL DEVELOPMENT

Thank you for your April 25, 2007 letter, requesting our review of and comments on the draft environmental assessment for the subject project.

We have the following comments on the document:

1. The impact of increased pedestrian activity resulting from the project, such as pedestrians crossing Beachwalk, should be assessed. If required, measures to improve pedestrian safety should be proposed and discussed.

2. Parking and loading facilities must be designed to accommodate all parking and loading activities, including maneuvering, completely on-site.

Should you have any questions regarding these comments, please contact Ms. Faith Miyamoto of the Transportation Planning Division at Local 8350.

MELVIN N. KAKU

GROUP 70
INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutotin Halm
Roy A. Inouye, AIA, CSI
Cami Kiestar
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Perrington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Melvin N. Kaku, Director
City and County of Honolulu
Department of Transportation Services
650 South King Street, 3rd Floor
Honolulu, HI 96813

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Kaku:

Thank you for your comment letter (18 June 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

1. According to the findings in the Traffic Impact Assessment Report prepared for the Draft EA, approximately 40% of the total number of trips generated by the proposed development during both weekday PM and Saturday PM peak hours are conservatively assumed to be pedestrian trips. Most of the pedestrian traffic emanates from ongoing retail and restaurant activities occurring along Kalākaua Avenue. As discussed in Section 2.3 of the Draft EA, we believe the proposed transfer of the public right-of-way to an on-site easement may be the appropriate solution for this area. The provision of the landscaped area along the edge of Beach Walk that fronts the property would deter pedestrians from illegally crossing the street from the Beach Walk Triangle Park direction. We feel these designs will improve pedestrian safety.

2. As shown in the Site Plan (Figure 2-1) of the Draft EA, the proposed parking and loading scheme is designed to support all associated project activities, including maneuvering, to occur on-site. Figure 2-1 has been reformatted in the Final EA for easier readability and clarity.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

RECEIVED
'07 MAY 29 A8:42
CITY & COUNTY

May 23, 2007

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: KENNETH G. SILVA, FIRE CHIEF

SUBJECT: CHAPTER 343, HRS, DRAFT ENVIRONMENTAL ASSESSMENT
PROJECT: 280 BEACH WALK RETAIL DEVELOPMENT
LOCATION: 270 AND 286 BEACH WALK AND 321 SARATOGA ROAD
TAX MAP KEYS: 2-6-003: 026, 027, 048, 049, AND 058
PROJECT NUMBER 2007/ED-5 (SN)

In response to your letter of April 25, 2007, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from a fire apparatus access road as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

   On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 723-7151.

KENNETH G. SILVA
Fire Chief

KGS/SK:bh

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobri Hahm
Roy A. Inouye, AIA, CSI
Cem Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Kenneth G. Silva, Fire Chief
City and County of Honolulu
Honolulu Fire Department
636 South Street
Honolulu, HI 96813-5007

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Silva:

Thank you for your comment letter (23 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

1. All first floor improvements will be within 150 feet of existing public streets that are accessible for fire department vehicles. There is an existing fire hydrant fronting the proposed building area along Beach Walk.

2. The private portion of the water system serving the proposed project, including all metered appurtenances will be designed to meet Board of Water supply standards for hydrant spacing and fire flow. There will be a 6" Detector Check Meter to supply fire sprinklers within the proposed building.

3. Upon completion of the detailed design phases of the project, civil drawings will be submitted to the department for review and approval.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

MUFI HANNEMANN
MAYOR

BOISSE P. CORREA
CHIEF

GLEN R. KAJIYAMA
PAUL D. PUTZULU
DEPUTY CHIEFS

OUR REFERENCE BS-DK

May 7, 2007

RECEIVED
'07 MAY -9 A8:38
CITY & COUNTY OF HONOLULU

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: BOISSE P. CORREA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
280 BEACH WALK RETAIL DEVELOPMENT
321 SARATOGA ROAD - WAIKIKI
TAX MAP KEYS: 2-6-3: 26, 27, 48, 49, AND 58

Thank you for the opportunity to review and comment on the subject project.

This project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Randal Macadangdang of District 6 at 529-3361 or Mr. Brandon Stone of the Executive Office at 529-3644.

BOISSE P. CORREA
Chief of Police

By
JOHN P. KERR
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha

GROUP 70 INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Storie, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cocco, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kilwika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Boise P. Correa, Chief of Police
City and County of Honolulu
Honolulu Police Department
801 South Beretania Street
Honolulu, HI 96813

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Correa:

Thank you for your comment letter (7 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA).

We acknowledge your statement that the proposed project is considered to have no significant impact to the operations of the Honolulu Police Department within the Waikīkī sector.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

May 29, 2007

RECEIVED
MAY 31 2007
GROUP 70 INT'L

Mr. Kawika McKeague
Group 70 International, Inc.
925 Bethel Street - Fifth Floor
Honolulu, HI 98613-4307

Dear Mr. McKeague:

Re: 280 Beach Walk Retail Development
Waikiki, Oahu, Hawaii
TMK: 2-6-003: 026, 027, 048, 049 & 058

Thank you for the opportunity to comment on the above-referenced project. Hawaiian Electric Company, Inc. (HECO) has no objections at this time. The following comments were received from the Transmission & Distribution Division of our Engineering Department:

HECO has both existing overhead facilities (covered by R/W #1955-137) and underground facilities (covered by R/W #2001-021) within the subject property and will require continued access for maintenance purposes. We appreciate your efforts to keep us apprised of the planning process. As the project progresses, please continue to keep us informed. We will be better able to evaluate any effects on our system facilities further along in the project's development. We request that development plans show all affected HECO facilities and address any conflicts between the proposed plans and HECO's existing facilities. Please forward the pre-final development plans to HECO for review.

Should it become necessary to relocate HECO's facilities, please submit a request in writing and we will work with you so that construction of the project may proceed as smoothly as possible. Please note that there may be costs associated with any relocation work, and that such costs may be borne by the requestor. Because any redesign or relocation of HECO's facilities may cause lengthy delays, upon determination that HECO facilities will need to be relocated, HECO should be notified immediately in order to minimize any delays in or impacts on the project schedule.

Our point of contact for this project, and the originator of these comments, is Dustin Nakamoto (543-7763). I suggest dealing directly with him to coordinate HECO's continuing input in this project.

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

cc: OEQC
S. Nishiura (DP&P/C&C)
W. Paluch (Eight, Inc.)
D.Nakamoto /P.Nakagawa/R.Tamayo

GROUP 70 INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Mile, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete G. Galvez, AIA
Sutobin Halmi
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangoman
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Kirk S. Tomita, Senior Environmental Scientist
Hawaiian Electric Company
P.O. 2750
Honolulu, HI 96840-0001

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Tomita:

Thank you for your comment letter (29 May 2007) directed to our office for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

Detailed design and development plans will be submitted with the filing of the Waikīkī Special District (Major) Permit application. These plans will show all existing utility infrastructure within and adjoining the project area. These plans will be submitted to HECO for their review.

Currently, it has been determined that the existing HECO vault cover at the northeast corner of the project area would remain but would require that the cover may need to be adjusted to provide a smooth connection with the proposed design scheme. As such, this action and any other action requiring the relocation of HECO equipment will prompt a written request to be submitted to HECO during the Special District application process. We acknowledge that relocation of HECO equipment could require costs to be incurred by the owner. Any written request to HECO would be submitted in a timely manner to allow adequate time for review and implementation.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta, AICP
Principal, Chief Community Planner

→SN

Hawaiian Telcom

RECEIVED
'07 MAY 17 AM 10:58
CITY & COUNTY OF HONOLULU

May 14, 2007

City and County of Honolulu
Department of Planning and Permitting
Attention: Sharon Nishiura
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Subject: **280 Beach Walk Retail Development, Draft Environmental Assessment**

Dear Ms. Nishiura:

Thank you for the opportunity to review said project. We received the Draft Environmental Assessment and have completed our review.

Telecommunication service connection shall be on Beach Walk, on the south east corner of the property. Adequate space shall be provided at the retail complex to mount our equipment. Electrical plans shall be submitted to our office for review. Civil and Architectural drawings may be requested should more information be required.

As for the six-foot utility access easement at the rear of the project, we are concerned with the proposed improvements within this area. There should always be a 24-hour access to our existing conduits and pullboxes before, during, and after construction. We may request that new conduits and/or pullboxes be placed based on what is being proposed for pedestrian traffic between the parking structure and the retail complex. Our reasoning is that we would incur more expense if there is a significant amount of concrete and/or decorative tiles or other landscaping that need to be replaced.

We will work with the project's consultants to satisfy their needs as well as protect our interests as well.

Should you have any questions, please call Noel Remigio at 840-5847 or 546-4747.

Sincerely,

Jill Lee
Manager – OSP Engineering, East & West Oahu

C: File (Waikiki)
N. Remigio

Eight Inc.
Attention: William Paluch
55 Merchant Street, Suite 1420
Honolulu, Hawaii 96813

Group 70 International, Inc.
Attention: Kawika McKeague
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

GROUP 70
INTERNATIONAL

Francis S. Oda, Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sharyl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kanashiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Rudolfo, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuccia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halim
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kawika McKeague
Kathryn A. Nam
Hiram C. Pajo
Donna D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangoman
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Ms. Jill Lee, Manager
Hawaiian Telcom
OSP Engineering, East and West O'ahu
1177 Bishop Street
Honolulu, HI 96813

SUBJECT: Response to Comments Provided for
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Ms. Lee:

Thank you for your comment letter (14 May 2007) directed to the City and County of Honolulu, Department of Planning and Permitting for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

Detailed design and development plans will be submitted with the filing of the Waikikī Special District (Major) Permit application. These plans will show all existing utility infrastructure within and adjoining the project area. Electrical plans will be submitted to Hawaiian Telcom for their review. Additional civil and architectural plans will be provided as requested.

Access to telecommunication service connections within the project area will be improved and maintained to allow for 24-hour accessibility. Project designers will coordinate final design schemes with Hawaiian Telcom engineers to ensure that placement of necessary conduits and pullboxes are sited appropriately within the project area.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta

George Atta, AICP
Principal, Chief Community Planner

RECEIVED
MAY 31 2007
GROUP 70 INT'L

May 28, 2007

Group 70 International, Inc.,
Contact: Kawika McKeague
925 Bethel Street, 5th Floor
Honolulu, Hawai'i 96813

Thank you for the opportunity to comment on the Draft EA for the 280 Beach Walk Retail project. The Waikiki Neighborhood Board is glad to see appropriate in-fill retail development contributing to the continued renaissance of Waikiki. Our comments will focus on the aesthetics of the development and its consistency with the Special District Design Guidelines, the Waikiki Livable Community Project and pertinent provisions of the Primary Urban Center Development Plan.

The proposed roof is a major design feature of the development and therefore requires special consideration. Section 2.3 of the DEA identifies a glazed-tile roof design in a darker green color. While the tile roof is satisfactory, may we suggest a non-glazed tile in a more earth-tone color consistent with themes outlined on Page 7 of the Special District Design Guidelines. Possible options could include various shades of brown of a non-glazed/non-reflective variety. Examples of this type can be found throughout the officer base housing area of Hickam Air Force Base.

The storefront off-sets are an appropriate and attractive feature providing articulation and a pleasing pedestrian-scale experience. However, more substantial column and beam framework components along with more detailed façade elements (not just glass curtain walls) would convey durability and permanence consistent with the design guidelines. Consistent and appropriately scaled signage would also be encouraged.

While there is not a consistent design vernacular among existing buildings surrounding the 280 Beachwalk site, incorporating the above recommendations may help the project to aesthetically blend better with its neighbors, as required by the design guidelines. The overarching theme of the Waikiki design guidelines is to provide a "Hawaiian sense of place" with

an emphasis on the pedestrian experience. We believe your project goes far towards complying with that theme. We look forward to reviewing any proposed changes to your design as a part of your SMA permit application.

Aloha,

Jeff Merz
Waikiki Neighborhood Board

cc: Robert Finley, Chair
Waikiki Neighborhood Board

First Round Pacific, LLC
Agent: Beall Corporation
4901 Kalaniana'ole Highway
Honolulu, HI 96821

City and County of Honolulu
Department of Planning and Permitting
Contact: Sharon Nishiura
650 S. King Street,
Honolulu, Hawai'i 96813

GROUP 70
INTERNATIONAL

Francis S. Oda
Arch. D., FAIA, AICP
Norman G.Y. Hong, AIA
Sheryl B. Seaman, AIA, ASID
Hitoshi Hida, AIA
Roy H. Nihei, AIA, CSI
James I. Nishimoto, AIA
Stephen H. Yuen, AIA
Linda C. Miki, AIA
George I. Atta, AICP
Charles Y. Kaneshiro, AIA, LEED
Jeffrey H. Overton, AICP
Christine Mendes Ruotola, AICP
James L. Stone, AIA, LEED

Paul P. Chorney, AIA
Philip T. Cuocia, CSI, CDT
Kimberly Evans
Pete C. Galvez, AIA
Sutobin Halm
Roy A. Inouye, AIA, CSI
Cami Kloster
Katherine M. MacNeil, AIA
Frank B. McCue
Kāwika McKeague
Kathryn A. Nam
Hitam C. Pajo
Dorina D. Pennington
Kimberly Polkinhorn, AIA, LEED
Scott Tangonan
Tom Young, AIA

Ralph E. Portmore, AICP
Of Counsel

July 2, 2007

Mr. Jeff Merz, Vice-Chair
Waikīkī Neighborhood Board, No. 9
2452 Tusitala Street PH 8
Honolulu, HI 96815

SUBJECT: **Response to Comments Provided for**
280 Beach Walk Retail Development Draft Environmental Assessment
TMK 2-6-003:026, 027, 048, 049, 058
Waikīkī, O'ahu, Hawai'i

Dear Mr. Merz:

Thank you for your comment letter (28 May 2007) directed to our office for the 280 Beach Walk Retail Development Draft Environmental Assessment (EA). The following is offered in response to your comments.

We appreciate and value the support of the project by the Waikīkī Neighborhood Board (WNB). We recognize that the WNB may have some recommendations specific to detailed designs of the development. Detailed design and development plans will be in accordance to the Waikīkī Special District Design Guidelines, the Livable Community Project and the applicable provisions of the Primary Urban Center Development Plan.

Final development and detailed design plans will be submitted with the filing of the Waikīkī Special District (Major) Permit application. The use of alternative materials, forms, and scale of building design and signage will be evaluated and selected on the basis of meeting guideline requirements yet attempt to provide an accent in the design vocabulary of other retail shops along the portion of Kalākaua Avenue that lead to the Beach Walk.

We acknowledge that the WNB values that the project would provide a sense of place appropriate to Waikīkī and aims to enhance the pedestrian experience from Kalākaua Avenue along Beach Walk and strengthens the area's pedestrian corridor to the shoreline.

We have one correction to make in your comment letter. The proposed project lies outside of the Special Management Area (SMA), therefore this project will not need to acquire a SMA Use permit. However, we do look forward to the WNB's continued participation during the planning and review of the Waikīkī Special District (Major) Permit application.

Your comment letter and this response will be included in the Final EA. We appreciate your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George Atta, AICP
Principal, Chief Community Planner

Group 70 International, Inc. • Architecture • Planning • Interior Design • Building Diagnostics • Assets Management • Environmental Services
925 Bethel Street, 5th Floor • Honolulu, Hawai'i 96813-4307 • Ph (808) 523-5866 • Fax (808) 523-5874 • www.group70int.com • mail1@group70int.com

APPENDIX B

Order of Magnitude Estimate
for 280 Beach Walk Construction

SUTTON CONSTRUCTION INCORPORATED
GENERAL CONTRACTING & CONSTRUCTION MANAGEMENT

LICENSE NO. BC 21175

280 Beachwalk

Order of Magnitude

General Requirements		$ 1,474,073.00
Site Work		
	Site Work	$ 1,083,750.00
	Landscape/Irragation	$ 125,000.00
	Parking Structure	$ 340,000.00
Concrete		$ 1,430,600.00
Masonry		$ 422,900.00
Metals		$ 761,500.00
Carpentry		$ 933,230.00
Moisture Protection	Built Up Roof	$ 150,000.00
	Tile Roof	$ 135,000.00
	Misc.	$ 35,000.00
	Sheetmetal/Flashing	$ 128,000.00
	Roof Top Screens	$ 92,500.00
	Gutters	$ 37,800.00
Doors and Windows		$ 1,138,500.00
Finishes	Plaster	$ 314,500.00
	Drywall	$ 312,000.00
	Miisc.	$ 75,000.00
Specialties		$ 90,000.00
Mechanical		
	Plumbing	$ 246,500.00
	Sprinkler	$ 289,800.00
	Air conditioning	$ 345,400.00
Electrical		$ 1,217,000.00
		$11,178,053.00
	Profit & Overhead	$ 1,341,366.36
Control Budget		$12,519,419.36

ESTABLISHED 1989 UNDER LICENSE NO. BC 15133

MAIN OFFICE · P. O. BOX 4388 · KANEOHE, HAWAII 96744 · (808) 233-2200 · FAX (808) 239-4592

COMMERCIAL DIVISION · 900 FORT STREET MALL, STE 1720 · HONOLULU, HAWAII 96813 · (808) 523-2307 · FAX (808) 537-2707

APPENDIX C

Phase 1 Environmental Site
Assessment and Subsequent Surface Soil Sampling

Final Phase I Environmental Site Assessment
Waikiki Beachwalk Property
Waikiki District
Honolulu, Oahu, Hawaii

June 26, 2006
005-11082-00

Prepared for:
Eight Inc.
32 Merchant Street, Suite 201
Honolulu, HI 96813

Prepared by:
LFR Inc.
220 South King Street, Suite 1290
Honolulu, HI 96813

CONTENTS

EXECUTIVE SUMMARY V

1.0 INTRODUCTION 1
- 1.1 Purpose 1
- 1.2 Detailed Scope of Services 2
- 1.3 Significant Assumptions 2
- 1.4 Limitations and Exceptions 2
- 1.5 Special Terms and Conditions 3
- 1.6 User Reliance 3

2.0 SITE DESCRIPTION 3
- 2.1 Location and Legal Description 3
- 2.2 Site and Vicinity General Characteristics 4
- 2.3 Current Use of the Property 4
- 2.4 Current Uses of the Adjoining Properties 4

3.0 USER-PROVIDED INFORMATION 5
- 3.1 Title Records 5
- 3.2 Environmental Liens or Activity and Use Limitations 5
- 3.3 Specialized Knowledge 5
- 3.4 Commonly Known or Reasonably Ascertainable Information 6
- 3.5 Valuation Reduction for Environmental Issues 6
- 3.6 Owner, Property Manager, and Occupant Information 6
- 3.7 Reason for Performing Phase I 6

4.0 RECORDS REVIEW 6
- 4.1 Standard Environmental Record Sources 6
  - 4.1.1 Federal Environmental Record Sources 7
  - 4.1.2 State Environmental Record Sources 9
- 4.2 Additional Environmental Record Sources 12
- 4.3 Physical Setting 12
  - 4.3.1 Geology 12

4.3.2 Hydrogeology 12
4.4 Historical Use Information on the Property and Surrounding Area 13
4.4.1 Fire Insurance Maps 13
4.4.2 Aerial photographs 15
4.4.3 Historical Topographic Maps 16
4.4.4 Street Directories 16
4.5 Previous Reports 16
4.5.1 Phase I Environmental Site Assessment Report, 286, 298 and 321 Beachwalk, prepared by Edward K. Noda and Associates on January 12, 1999 17
4.5.2 Final Report of Hazmat Program Management for the Hilo Hatties Beach Walk Property, prepared by The Environmental Company, Inc., July 19, 2001 17
4.5.3 Phase I Environmental Site Assessment Report, 270 and 286 Beachwalk and 321 Saratoga Road, prepared by Edward K. Noda and Associates on December 8, 2003 17

5.0 SITE RECONNAISSANCE 18
5.1 Methodology and Limiting Conditions 18
5.2 General Site Setting 18
5.3 Subject Property Inspection 18
5.2.1 Hazardous Substances and Petroleum Products 19
5.2.2 Storage Tanks 19
5.2.3 Odors 19
5.2.4 Pools of Liquid 19
5.2.5 Drums 19
5.2.6 Unidentified Substance Containers 19
5.2.7 PCBs 20
5.2.8 Pits, Ponds, or Lagoons 20
5.2.9 Stained Soil or Pavement 20
5.2.10 Stressed Vegetation 20
5.2.11 Solid Waste 20
5.2.12 Wastewater 20
5.2.13 Wells 20
5.2.14 Septic Systems 20

6.0 INTERVIEWS 21
6.1 Interviews with Local Government Officials 21

7.0 FINDINGS 21
7.1 De Minimis Conditions 21

8.0 CONCLUSIONS 22

9.0 REFERENCES 23

FIGURES

1 Site Vicinity Map
2 Site Plan

APPENDICES

A EDR Report
B Historical Sanborn Maps
C Historical Aerial Photographs
D Historical Topographic Maps
E Site Photographs
F Qualifications of Environmental Professional
G Interview Documentation

EXECUTIVE SUMMARY

This report presents the results of a Phase I Environmental Site Assessment (ESA) performed by LFR Inc. (LFR) of the properties addressed as 270 and 286 Beachwalk Street, 321 Saratoga Road, and a public easement identified as Tax Map Key (TMK) 2-6-003:058, Honolulu, Oahu, Hawaii (the "Site"). LFR's Environmental Site Assessment (ESA) has been prepared in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice E 1527-00.

On June 7, 2006, Teri Kazmierczak of LFR performed a visual inspection for the possible presence of recognized environmental conditions (RECs) such as petroleum products and/or hazardous substances at, or in the vicinity of, the Site as defined by ASTM E 1527-00. LFR's investigation also included reconnaissance of adjacent properties, historical research, interviews, and a review of readily available and ascertainable local, state, and federal regulatory records regarding the presence of petroleum products or hazardous substances at, or in the vicinity of, the Site.

The property consists of four parcels of land totaling approximately 30,000-square feet in size. A two-story parking structure containing basement parking is located at 321 Saratoga Road. The remainder of the Site is unimproved and consists of vacant land covered with gravel. Based on review of Sanborn Fire Insurance Maps and historical aerial photographs, the Site has been used for a mixture of commercial and residential properties since prior to 1914. In 2000, an apartment building located at 270 Beach Walk (parcel :027) was demolished and parcel :027 has been vacant since that time. Similarly, the Hula Hut restaurant located at 286 Beach Walk (parcel :026) was demolished in 2004 and parcel :026 has been vacant since that time. Parcels :026 and :027 are currently appear to be one lot and are surrounded by a chain-linked fence.

At this time, this assessment has revealed no evidence of current or historic RECs in connection with the property; however, an issue of environmental concern was identified when reviewing previous environmental reports for the Site. Specifically, a Phase I ESA prepared by Edward K. Noda and Associates in December of 2003, identified suspect asbestos containing (ACM) within the exterior and interior Hula Hut restaurant located at 286 Beach Walk. In addition suspect lead-based paint (LBP) areas were identified on the exterior of the building. Edward K. Noda and Associates recommended testing suspect ACM and LBP areas. It is unknown whether such testing activities were ever performed. The building was later demolished and it is not known whether soil at the Site has been impacted with ACM or LBP.

1.0 INTRODUCTION

LFR Inc. (LFR) performed a Phase I Environmental Site Assessment (ESA) of the properties addressed as 270 and 286 Beachwalk Street, 321 Saratoga Road and a public easement, located within the Waikiki District of Honolulu, Hawaii ("the Site"; Figure 1). The property consists of four parcels of land totaling approximately 30,000-square feet in size. A two-story parking structure containing basement parking is located at 321 Saratoga Road. The remainder of the Site is unimproved and consists of vacant land covered with gravel. Based on review of Sanborn Fire Insurance Maps and historical aerial photographs, Site has been used for a mixture of commercial and residential properties since prior to 1914. In 2000, an apartment building located on parcel :027 (270 Beach Walk) was demolished and parcel :027 has been vacant since that time. In 2004, the restaurant located on parcel :026 (286 Beach Walk) was demolished and parcel :026 has been vacant since that time. Parcels :026 and :027 are currently surrounded by a chain-link fence.

The Site is currently owned by Round One USA Corporation ("the Owner"). We understand that the work described herein is being performed for Eight Inc. ("the Client") to evaluate environmental conditions of the Site as part of a land transaction. The work was performed in accordance with the terms and conditions of the Professional Services Agreement between LFR and Eight Inc. dated May 23, 2006. This ESA report has been prepared in conformance with the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment* (ASTM E 1527-00).

1.1 Purpose

The purpose of this assessment is to identify any recognized environmental conditions (RECs) in connection with the property, to the extent feasible pursuant to the processes prescribed in ASTM E-1527-00 guidelines. The term "REC" as defined by ASTM is "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

This Phase I ESA includes information gathered from federal, state, and local agencies; personal interviews with people familiar with the Site and surrounding properties; and a site visit conducted by LFR representatives. The report is intended to meet the requirements of ASTM E-1527-00.

1.2 Detailed Scope of Services

The Phase I ESA conducted by LFR included the following services:

- a reconnaissance-level visit of the Site to look for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for on-site releases of hazardous materials and petroleum products
- drive-by observations of adjacent properties and the site vicinity
- interviews with people familiar with the Site, as available
- review of regulatory and local agency files, as necessary
- review of historical documents, as available
- preparation of a report presenting our findings including a summary of conclusions and recommendations

1.3 Significant Assumptions

The purpose of this Phase I ESA is to provide appropriate inquiry into the previous ownership and use of the Site consistent with good commercial and customary practice in an effort to minimize liability. LFR also assumes that the information provided by Eight Inc., the regulatory database provider, and regulatory agencies is true and reliable.

1.4 Limitations and Exceptions

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, express or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

The findings presented in this report apply solely to site conditions existing at the time when LFR's assessment was performed. It must be recognized; however, that an ESA is intended for the purpose of determining the potential for contamination through

limited research and investigative activities and in no way represents a conclusive or complete site characterization. Conditions in other parts of the project site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in ESA conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties that a property is free from environmental contamination. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

1.5 Special Terms and Conditions

The scope of work for this Phase I ESA did not include testing of electrical equipment for the potential presence of polychlorinated biphenyls (PCBs) or the assessment of natural hazards such as naturally occurring asbestos or methane gas, assessment of the potential presence of radionuclides, or assessment of non-chemical hazards such as the potential for damage from earthquakes or floods. This Phase I ESA also did not include an extensive assessment of the environmental compliance status of the Site or of the businesses operating at the Site, or a health-based risk assessment.

1.6 User Reliance

This Phase I ESA was conducted for the use and reliance by Eight Inc. and its successors and assignees, and may be relied upon by such parties. No use of the information contained in this report by others is permissible without receiving prior written authorization to do so from LFR Inc. We are not responsible for independent conclusions, opinions, or recommendations made by others or otherwise based on the findings presented in this report.

2.0 SITE DESCRIPTION

This section presents a general overview of the Site, improvements, and surrounding properties.

2.1 Location and Legal Description

The Site consists of four parcels of land, one of which is improved with a parking garage, totaling approximately 30,000-square feet in size. According to the City and County of Honolulu Department of Planning and Permitting, the parcels included in the Site are identified as the following:

- 286 Beachwalk Street - Tax Map Key (TMK) 1-2-6-3:026;

- 270 Beachwalk Street - TMK 1-2-6-3:027;
- 321 Saratoga Street – TMK 1-2-6-3:048; and;
- Public Easement - TMK 1-2-6-3:058.

2.2 Site and Vicinity General Characteristics

The Site is located within the Waikiki District of Honolulu. The Site is located within the Resort Commercial Precinct and Resort Mixed Use Precinct of the Waikiki Special District. The surrounding area is heavily developed with commercial properties, residential condominium high-rise structures, Hotels, and public parking areas. A Site Vicinity Map and Site Map are presented as Figures 1 and 2, respectively.

2.3 Current Use of the Property

The property consists of four parcels of land totaling approximately 30,000-square feet in size. At the time of LFR's Site visit on June 7, 2006, three of the parcels (parcels :026, :027, and :058) were vacant. Parcel :048, addressed as 321 Saratoga Road, is improved with a two story parking structure containing a basement level. The remainder of the Site is unimproved and consists of vacant land covered with gravel. Based on review of Sanborn Fire Insurance Maps and historical aerial photographs, the Site has been used for a mixture of commercial and residential properties since prior to 1914. In 2000, an apartment building located on parcel :027 (270 Beach Walk) was demolished and parcel :027 has been vacant since that time. Similarly, the restaurant located on parce1 :026 (286 Beach Walk) was demolished in 2004 and parcel :026 has been vacant since that time. Parcels :026 and :027 currently appear to be one lot and are surrounded by a chain-link fence.

The Site is bordered to the west by Saratoga Road and Beach Walk to the east. The public easement runs along the central portion of the Site in a north/south direction.

2.4 Current Uses of the Adjoining Properties

The following properties are located adjacent to the Site:

- The Site is bordered to the east by Beach Walk, beyond which is the Wyland Plaza. The Wyland Plaza is a multi-tenant commercial high-rise. At the time of LFR's inspection, tenants included the Wayland Gallery, Planet Hollywood, Marie's Health Food, and a parking garage.

- The Site is bordered to the west by Saratoga Road, beyond which is a United States Post Office building. A tennis court is located northwest of the Site and a public parking lot is located southwest of the Site beyond Saratoga.

- The Hawaiian Hotel is located south of the Site. Burberry Plaza is located north of the eastern portion of the Site and a multi-tenant commercial structure and Arnold's Tiki Lounge are located north of the western portion of the Site (See Figure 2).

3.0 USER-PROVIDED INFORMATION

A representative of the property owner, Mr. Masahiko Sugino of Round One USA Corporation, was contacted regarding the following information (Appendix G).

3.1 Title Records

Chain-of-Title information was provided by the Client. No environmental land-use limitations or environmental liens are present within the Chain-of-Title documentation.

3.2 Environmental Liens or Activity and Use Limitations

Mr. Sugino is not aware of the presence of environmental clean-up liens or activity and land-use restriction. However, Mr. Sugino stated that there is a Joint Development Agreement (JDA) and an easement related to the property. My Sugino stated that these items are addressed in the Title Records for the property.

3.3 Specialized Knowledge

Mr. Sugino was asked the following questions as part of the assessment:

- Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
- Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user:
  a) Do you know the past uses of the property?
  b) Do you know of specific chemicals that are present or once were present at the property?
  c) Do you know of spills or other chemical releases that have taken place at the property?
  d) Do you know of any environmental cleanups that have taken place at the property?

- Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?
- Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property?
- Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?

Mr. Sugino stated that there was a vacant building on-Site when the property was purchased. Since that time, the building has been demolished. Mr. Sugino was not aware of the nature of the building prior to vacancy. Mr. Sugino answered "No" to the remainder of the questions.

3.4 Commonly Known or Reasonably Ascertainable Information

Mr. Sugino was not aware of the presence of obvious indicators that point to the presence or likely presence of contamination at the property.

3.5 Valuation Reduction for Environmental Issues

Mr. Sugino believes that the purchase price for the property reasonably reflects the fair market value of the property.

3.6 Owner, Property Manager, and Occupant Information

No additional information was provided by the owner or Site occupants.

3.7 Reason for Performing Phase I

The reason for performing the Phase I ESA was to evaluate the presence of RECs in anticipation of a property purchase/acquisition.

4.0 RECORDS REVIEW

The following section presents the results of LFR's records review, including regulatory agency database information, topographic maps, historical aerial photographs, and historical Sanborn maps pertaining to the Site and surrounding area.

4.1 Standard Environmental Record Sources

Regulatory agency database information was obtained from Environmental Data Resources, Inc. (EDR), which maps and lists properties in federal and state

environmental databases with existing conditions or status that may have the potential to affect the Site. The database report is provided as Appendix A.

4.1.1 Federal Environmental Record Sources

ASTM E 1527-00 guidance required review of the following federal databases within the radii indicated.

4.1.1.1 National Priorities List (NPL; 1.0 mile radius)

The National Priorities List (NPL) is a subset of Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and identifies over 1,200 sites for priority cleanup under the Superfund program. An NPL site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the U.S. Environmental Protection Agency (EPA). Source: U.S. EPA.

There are no listed NPL properties within 1.0 mile of the Site.

4.1.1.2 Delisted NPL Site List (NPL; 1.0 mile radius)

The Delisted NPL Site List includes properties that have been delisted off the NPL.

There are no delisted NPL properties within 1.0 mile of the Site.

4.1.1.3 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS; 0.5 mile radius)

CERCLIS contains data on potentially hazardous waste sites that have been reported to the U.S. EPA by states, municipalities, private companies, and private persons pursuant to the CERCLIS List. The CERCLIS List includes sites that are either proposed for the NPL or in the screening and assessment phase for possible inclusion on the NPL. Source: U.S. EPA/National Technical Information Service (NTIS).

There are no sites on the CERLIS within 0.5 mile of the Site.

4.1.1.4 CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP; 0.25 mile radius)

CERCLIS-NFRAP contains data on sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be place on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. Source: U.S. EPA/National Technical Information Service (NTIS).

One facility, Stan Shinkawn Inc., located at 2330 Kalakaua Avenue, is listed on the CERCLIS-NFRAP database within a 0.50 mile radius of the Site. That facility, which is also listed on additional federal and state databases searched by EDR, is located approximately 1,430 feet southeast of the Site. Based on the inferred cross-gradient hydrologic direction and the distance from the Site, it appears unlikely that the facility will adversely affect environmental conditions at the Site and is therefore not discussed further in this report.

4.1.1.5 Corrective Action Report (CORRACTS; 1.0 mile radius)

CORRACTS identifies hazardous waste handlers with the Resource Conservation and Recovery Act (RCRA) corrective action activity. Source: U.S. EPA.

There are no CORRACTS listed facilities within a 1.0-mile radius of the Site.

4.1.1.6 RCRA Treatment, Storage, and Disposal (TSD) Facilities (0.5 mile radius)

RCRA TSD Facilities includes selected information on facilities that generate, transport, store, treat and/or dispose of hazardous waste, as defined by the RCRA. Source: U.S. EPA/NTIS.

There are no listed TSD properties within 0.5 mile of the Site.

4.1.1.7 RCRA Generators Lists (0.25 mile radius)

RCRA large-quantity generators (LQG) are those facilities that generate at least 1,000 kilograms per month (kg/month) of non-acutely hazardous waste or meet other applicable RCRA requirements. Resource Conservation and Recovery Information System (RCRIS) small-quantity generators (SQG) generate less than 1,000 kg/month of non-acutely hazardous waste or meet other applicable RCRA requirements.

One facility, the Royal Hawaiian Hotel, located at 2259 Kalakaua Avenue, is listed on the RCRA-LQG list within a 0.25 mile radius of the Site. This facility is located approximately 1,100 feet southeast and cross gradient of the Site. Based on the distance, and inferred hydrologic cross-gradient direction, this facility is not expected to adversely affect soil and groundwater conditions at the subject Site.

Eleven facilities were identified on the RCRA-SQG database within a 0.25 mile radius of the Site. One facility, the Royal Hawaiian Shooting Club, located at 2201 Kalakaua Avenue, was found to have a single violation in 2004. No violations associated with the generation of hazardous waste were found for the additional facilities listed on the RCRA-SQG databases.

4.1.1.8 Federal Institutional Control/Engineering Control Registries (Site only)

Federal institutional control and engineering control registries were requested in the database search.

The Site is not listed on the registries reported by EDR.

4.1.1.9 Emergency Response Notification System (ERNS; Site Only)

ERNS is a national database that records and stores information on reported releases of oil and hazardous substances. The database contains information on spill reports made to federal authorities including the U.S. EPA, U.S. Coast Guard, National Response Center, and Department of Transportation.

The Site is not listed on the ERNS database.

4.1.2 State Environmental Record Sources

ASTM E 1527-00 requires review of the following state databases.

4.1.2.1 State and Tribal-Equivalent CERCLIS Hazardous Waste Sites (SHWS; 1.0 mile radius)

The State Hazardous Waste database lists potential or confirmed hazardous substance release properties. There are twenty-six properties listed within 1.0 mile of the Site. Based on close proximity (less than 1/8 mile), two facilities are discussed below:

- **Waikiki Bazaar,** 2174 Kalakaua Avenue, is located approximately 200 feet east/southeast of the Site. During construction related activities at the facility, an unregulated UST was unearthed at the facility. At that time, an environmental assessment was conducted by Unitek to determine whether a release to the environment associated with the tank had occurred. Based on the findings of Unitek's assessment, a No Further Action (NFA) letter was issued by the Hawaii DOH on November 10, 2005. Based on the closed status, it appears unlikely that this facility will adversely affect environmental conditions at the Site.

- **King Kalakaua Plaza (Waikiki Gateway Park),** Kalakaua and Kalaimoku Street, is located approximately 550 feet north of the Site. According to a NFA letter dated September 28, 1998, the DOH Hazard Evaluation and Emergency Response (HEER) office concluded that remedial actions taken in regards to a 300-gallon diesel UST release and the former ARCO Gasoline Service Station have alleviated the problems associated with the release of hazardous substances posing a risk to human health. No further action is necessary. Based on the NFA listing, it appears unlikely that this property will affect soil or groundwater conditions at the Site.

The remaining facilities most likely will not impact the subject Site because they are either too far away (greater than 1/8 mile) from the Site or are located in an inferred hydraulic cross/down-gradient direction from the Site and, therefore, are not discussed further in this report.

4.1.2.2 State and Tribal-Equivalent SWF/LF, State Landfill (0.5 mile radius)

This database is an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

There are no properties listed within 0.5 mile of the Site.

4.1.2.3 State Leaking Underground Storage Tank Database (LUST; 0.5 mile radius)

The LUST database is a list of reported leaking UST incidents. The Site was not identified on the LUST database searched by EDR; however, the Post Office, which is located west of the Site, was identified. Eighteen additional properties were identified within a 0.5 mile radius of the Site. Based on close proximity (less than 1/8 mile), the files for five properties were reviewed at the State of Hawaii DOH. A summary of the files reviewed at the DOH follows:

- **United States Postal Service-Waikiki,** 330 Saratoga Road, is located west of the Site, beyond Saratoga Road. According to records on file at the DOH HEER office, a release from a 6,000-gallon gasoline UST was discovered at the facility during tightness testing conducted in March of 1989. No other information on this Site was available at the time of the HEER DOH records review.

  According to the records on file at the DOH Solid and Hazardous Waste Branch (SHWB), the UST was removed in July 1990 and replaced with an additional 6,000 gallon gasoline UST in September 1990. Groundwater monitoring activities conducted in May 1991, September 1992, and May 2000 did not indicate the presence of petroleum hydrocarbons in the groundwater ("Groundwater Sampling Report," Waikiki Post Office, M&E Pacific, Inc. May 2000). The UST, which was located in the northern corner of the property, was removed in August of 2004 ("UST Removal Report," Lowney Associates, November 11, 2004). The DOH SHWB issued an NFA letter on December 22, 2005 ("Soil and Groundwater Quality Evaluation Report," Lowney Associates, November 2, 2005). Based on the removal of the UST and the closed status of the property, it does not appear likely that this facility will adversely affect environmental conditions at the subject Site.

- **Kyotaru Hawaii Corporation,** 2160 Kalakaua Avenue, is located approximately 100-feet east of the Site. The files on this facility were not available at the DOH. However, this facility is listed as "clean-up complete" by the SHWB. Based on the closed status and the inferred cross-gradient hydrologic direction, it appears unlikely that this facility will adversely affect environmental conditions at the subject Site.

- **Yoneoka and Associates,** 2174/2190 Kalakaua Avenue, is located approximately 175 feet east/southeast of the Site. The files on this facility were not available at the DOH. However, this facility is listed as "clean-up complete" by the SHWB. Based on the closed status and the inferred cross-gradient hydrologic direction, it appears

unlikely that this facility will adversely affect environmental conditions at the subject Site.

- **CM&D,** 2112 Kalakaua Avenue, is located approximately 360 feet north/northeast of the Site. The files on this facility were not available at the DOH. However, this facility is listed as "clean-up complete" by the SHWB. Based on the closed status, it appears unlikely that this facility will adversely affect environmental conditions at the subject Site.

- **King Kalakaua Plaza,** 2080 Kalakaua Avenue, is located approximately 550 feet north of the Site. This facility is described above is Section 4.1.2.1.

The remaining facilities most likely will not impact environmental conditions at the subject Site because they are either too far away (greater than 1/8 mile) from the Site or are located in an inferred hydrologic cross/down-gradient direction from the Site and, therefore, are not discussed further in this report.

4.1.2.4 State Registered Underground Storage Tank (UST; 0.25 mile radius)

This database contains listings for current UST sites.

There are thirteen properties including the Post Office located across the street from the Site identified within a 0.25 mile radius of the Site on the UST database. The Post office is described above in Section 4.1.2.4. Additional facilities identified within a 0.25 mile radius of the Site including Kyotaru Hawaii Corporation, Yoneoka and Associates, CM&D, and King Kalakaua Plaza are also described above. The remaining facilities identified on the UST database are not expected to adversely impact environmental conditions at the subject Site because they are either too far away (greater than 1/8 mile) from the Site or no indications of a release are present. Therefore, these facilities are not discussed further in this report.

4.1.2.5 SPILLS (Site Only)

This database identifies properties that have had releases of hazardous substances to the environment reported to the DOH HEER office. The Site was not identified on the SPILLS database.

4.1.2.6 State Institutional Control/Engineering Control Registries (Site Only)

This database contains registry entries for institutional and engineering controls. There are no properties listed within 0.5 mile of the Site.

4.1.2.7 State and Tribal Voluntary Cleanup Sites (0.5 mile radius)

This database contains listings for current voluntary cleanup sites. There are no properties listed within 0.5 mile of the Site.

4.1.2.8 State and Tribal Brownfield Sites (0.5 mile radius)

This database contains listings for current brownfield sites. There are no properties listed within 0.5 mile of the Site.

4.2 Additional Environmental Record Sources

No additional environmental records were searched during this investigation.

4.3 Physical Setting

Based on a review of the United States Geological Survey (USGS) Honolulu, Hawaii 7.5-minute quadrangle map (USGS, 1983), the regional topography is relatively flat in the Site vicinity, but slopes gently toward the ocean approximately 0.25 mile to the southwest. Ground surface elevation at the Site is less than 10 feet above mean sea level (msl).

4.3.1 Geology

According to the U.S. Department of Agriculture's Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (1972) surface and near surface soils in the subject area are classified as Jaucas sand, 0 to 15 percent slope (designated JaC). Soils within the Jaucas Series consist of excessively drained, calcareous soils that occur as narrow strips on coastal plains. In a representative profile of Jaucas Sand 0 to 15 percent slopes, the soil is single grain, pale brown to very pale brown, sandy, and more the 60 inches deep. Permeability is rapid and runoff is very slow to slow.

4.3.2 Hydrogeology

Data presented in *Aquifer Identification and Classification for the Island of Oahu: Groundwater Protection Strategy for Hawaii* (Mink and Lau, 1990) indicates that two aquifers are present beneath the site. Groundwater in the Site vicinity occurs within the Palolo Aquifer System of the Honolulu Aquifer Sector. The upper aquifer is classified as a basal, unconfined, sedimentary aquifer with moderate salinity water (1,000 to 5,000 milligrams per Liter [mg/l] chlorides [Cl^-]). The aquifer has potential use, but not for drinking water and not considered ecologically important. The aquifer is replaceable with a high vulnerability to contamination. The lower aquifer is classified as a basal, confined, flanking aquifer with fresh water (less than 250 mg/l Cl^-). The aquifer is currently used as a drinking water source in areas north of the Underground Injection Control (UIC) line and is irreplaceable with a low vulnerability to contamination. The boundary between non-drinking water aquifers and underground sources of drinking water is referred to as the UIC line.

Groundwater flow is most likely towards the Pacific Ocean located approximately 1,000 feet south of the Site.

Nearby Water Wells

The well information presented below has been obtained from the Honolulu UIC Program Map Series of the State of Hawaii Department of Land and Natural Resources (DLNR, 1983). This map indicates no drinking water supply wells are located within a 1.0-mile radius of the Site. Six non-drinking water wells are located within a ½-mile radius of the Site (DLNR, 1991). The Site is located approximately 1,500 ft (0.28 mile) makai (seaward) and south/southwest of the Hawaii Department of Health (DOH) UIC line. Therefore, groundwater beneath the Site is not used as a drinking water source

Nearest Surface Water Bodies

The nearest surface water bodies consist of the Pacific Ocean, which is located approximately 1,000 feet south of the Site, and the Ala Wai Canal, which is located approximately 1,500 feet north/northeast of the Site.

Annual Rainfall

Annual rainfall in the site vicinity is approximately less than 28 inches (70 centimeters [cm]) per year.

Applicable DOH Tier 1 Soil and Groundwater Action Levels

Based on the data presented above and the groundwater uses in the Site vicinity, applicable DOH Tier 1 action levels for this site are for rainfall *less than 200 cm* per year, and drinking water source *not threatened*.

4.4 Historical Use Information on the Property and Surrounding Area

To evaluate historical use of the property, LFR reviewed readily available historical Sanborn Fire Insurance Maps, aerial photographs, and historical topographic maps. A summary of each is provided below. Historical street directories were not available for the Site and are not included as part of this ESA.

4.4.1 Fire Insurance Maps

LFR contacted EDR to conduct a search for available historical Sanborn Fire Insurance maps for the Site and surrounding area. Sanborn maps were available for the years 1914, 1927, 1949, 1956, 1975, 1977, 1991, and 1993 (Appendix B). Based on a review of the historical Sanborn maps, there is no evidence that a gasoline service station was historically located on-Site. However, several commercial structures have been depicted on the Site since approximately 1949. The nature of these commercial structures is not depicted and there is a potential for on-site properties of environmental concern (i.e. dry cleaners, photo-processing facilities, etc.). Sanborn Maps are presented as Appendix C. The following is a summary of the Sanborn Maps:

1914 Sanborn Map:

The Site is not shown on the earliest Sanborn Map provided by EDR. Residential dwellings are located south and southeast of the Site.

1927 Sanborn map:

The Site is divided into four parcels on the 1927 Sanborn map. The parcel located at 321 Saratoga Road contains a single residential structure. The parcel currently addressed as 286 Beach Walk contains three residential structures and a single commercial structure. The map labels the fourth structure as “The Louidor”, however, the nature of the structure is unknown. The parcel currently addressed as 270 Beach Walk contains two residential buildings. Residential dwellings are depicted in the general vicinity of the Site.

1949 Sanborn maps:

The 1949 Sanborn map shows a second small building added to the parcel addressed as 321 Saratoga Road. The Beach Walk Inn is depicted at 286 Beach Walk and it appears that the residential structures have been converted to motel units. The largest structure on site is shown as a restaurant. It appears that additional units of the Beach Walk Inn are present to the east, across Beach Walk. Residential structures are still depicted at 270 Beach Walk. Commercial structures including a restaurant, two taxi stands, an auto stand, and a car sales lot are depicted north of the Site, beyond Kalakaua Avenue, and numerous Inns and Hotels are depicted east of the Site beyond Beach Walk. The area west of the Site is depicted as Fort DeRussy U.S. Military Reservation.

1956 Sanborn map:

It appears that one of the motel units located at 286 Beach Walk has been converted to a commercial structure. The nature of the commercial structure is not depicted. No other significant changes from the 1949 map are depicted on the 1956 Sanborn map.

1975 and 1977 Sanborn Maps:

Individual structures shown on 286 and 270 Beach Walk on previous maps have been replaced in the 1975 Sanborn map by large single structures, one on each parcel. The quality of the maps prevents an accurate determination of the exact nature and use of the structures. Parcel 321 Saratoga Road is depicted as a parking area. Surrounding properties show the same development with few residential properties shown on the map, all having been replaced by larger structures.

1991 and 1993 Sanborn Maps:

No significant changes occur from the 1975 and 1977 Sanborn Maps. However, the quality of the maps is such that the nature of several of the on-Site structures can be ascertained. The Saratoga Road parcel is occupied by a two deck parking structure.

The Parcel addresses as 286 Beach Walk is occupied by the New Tokyo Restaurant and parcel addressed as 270 Beach Walk is identified as the Beach Walk Motor Hotel.

The surrounding properties are commercial in nature and include hotels, car rental facilities, office centers and restaurants.

4.4.2 Aerial photographs

LFR reviewed historical aerial photographs at R. M. Towill for the years 1949, 1970, 1978, and 2001. Photographs are presented in Appendix C. The following is a summary of the aerial photograph review:

June 8, 1949, photograph (black and white, 1" =300' scale)

A single residential structure is located on the parcel addressed as 321 Saratoga Road. Four structures are visible on the parcel currently addressed as 286 Beach Walk. The southern most structure is relatively large and appears to be commercial in nature. Two structures, apparently residential, are located on the parcel currently addressed as 270 Beach Walk.

Residential structures are visible on the northern and southern abutting properties along Beach Walk and Saratoga Road. Large commercial structures are depicted north of the Site, beyond Kalakaua Avenue, and large structures appearing to be hotels and inns are located east of the Site, beyond Beach Walk. Fort DeRussy U.S. Military Reservation is located west of the Site, beyond Saratoga Road.

July 21, 1970, photograph (black and white, 1" = 300' scale)

The residential structures located at 321 Saratoga Road have been demolished and the parcel appears to be vacant and used as a parking lot. One structure is present in the southern portion of the parcel addressed as 286 Beach Walk while the northern portion of the parcel is used as a parking area. One large structure is present on the parcel addressed as 270 Beach Walk. The exact nature of each structure could not be determined from the aerial photograph review.

Large commercial structures have been constructed north of the Site along Beach Walk and Saratoga Road replacing the residential structures visible on the 1949 aerial photograph. The Hawaiian Hotel has been constructed on the southern abutting property. Two rectangular shaped structures are located northwest of the Site, beyond Saratoga. The nature of the structures is unknown as they are not depicted on the Sanborn maps for this time period. Fort DeRussy Military Reserve is located west of the Site, beyond Saratoga Road. The remainder of the Site area consists of large commercial or hotel structures.

May 4, 1978, photograph (black and white, 1" = 300' scale)

The parking structure has been constructed at 321 Saratoga Road. Two commercial structures are not visible in the center of the parcel addressed as 286 Beach Walk. The remainder of the parcel appears to be utilized for parking. The large commercial structures located east of the Site, beyond Beach Walk, have been demolished and the lots appear to be under construction. The Post Office is visible on the west of the Site, beyond Saratoga Road. Public parking areas are visible northwest and southwest of the Site, beyond Saratoga Road. No other significant changes from the 1970 photograph are visible on Site or in the Site vicinity.

June 8, 2001, photograph (black and white, 1" = 300' scale)

The hotel structure located on 270 Beach Walk has been demolished and the parcel appears to be vacant. No other significant changes are visible on-Site. A large commercial structure, currently known as the Wayland Plaza, has been constructed east of the Site, beyond Beach Walk. Tennis courts have been constructed north of the Post Office, located west of the Site.

4.4.3 Historical Topographic Maps

Historical topographic maps of the Site area were reviewed for the years 1959, 1969, 1983, and 1998. No structures are depicted on-Site in any of the topographic maps reviewed. Fort DeRussy Military Reservation is depicted west of the Site, beyond Saratoga Road, in each of the maps. No other significant information is available on the historical topographic maps. Topographic maps are presented as Appendix D.

4.4.4 Street Directories

Street directory listings were not requested during the EDR database search as coverage for the area was not available.

4.5 Previous Reports

LFR reviewed three previous Phase I ESAs for the Site provided by the client: a Phase I ESA prepared by Noda and Associates and dated January 1999, a Final Report of Hazmat Program Management Report prepared by The Environmental Company, Inc. and dated July 2001; and an Environmental Assessment Report of parcels 2-6-003:026, 027, 048 and 049 prepared by Edward K. Noda and Associates, Inc. (Noda and Associates) and dated December 2003. Summaries of these reports are provided in the following sections.

4.5.1 Phase I Environmental Site Assessment Report, 286, 298 and 321 Beachwalk, prepared by Edward K. Noda and Associates on January 12, 1999.

In January of 1999, Noda and Associates prepared an ESA for TMKs 2-6-003:025, :026, :027, :048, and :049 on behalf of City Bank, Inc. At the time of the report two structures were present on Site, the Hula Hut restaurant (located on parcel :026) and a three story apartment building (located on parcel :027). The remainder of the property was covered by parking areas. Three concrete pad-mounted transformers were observed during the site visit, two of which may contain PCBs. Additionally, suspect asbestos containing materials (ACM) and suspect lead-based paint (LBP) were identified and Noda and Associates recommended testing suspect ACM and lead based paint areas. No other recognized environmental conditions in connection with the property were identified during the course of this ESA. Asbestos sampling and abatement were not performed as part of this ESA.

4.5.2 Final Report of Hazmat Program Management for the Hilo Hatties Beach Walk Property, prepared by The Environmental Company, Inc., July 19, 2001

The Environmental Company (TEC) prepared a report dated July 19, 2001 detailing asbestos sampling and abatement conducted at the Site in 2000 and 2001. TEC reported that an initial investigation performed by Island Environmental Construction Management (IECM) dated May 26, 2000 certified that the ACM within the two on-Site structures, an apartment building located at 270 Beach Walk and former restaurant located at 286 Beach Walk, had been properly abated. Based on that report, the apartment building located at 270 Beach Walk was demolished. However, suspect ACM was identified during demolition of the former restaurant located at 286 Beach Walk. On May 8, 2001, Island Demo sampled the suspect material and results of sampling indicated the presence of asbestos. Consequently the DOH Noise, Radiation, and Indoor Air Quality Branch visited the Site. TEC was retained by the owner to oversee the abatement of the additional ACM identified within the site building. On July 19, TEC contacted the Noise Radiation and Indoor Air Quality Branch regarding the abatement of the additional ACM at the Site. According to TEC, all ACM had been properly abated from the building. TEC reported that the DOH gave final clearance of the Site and considered the case closed.

4.5.3 Phase I Environmental Site Assessment Report, 270 and 286 Beachwalk and 321 Saratoga Road, prepared by Edward K. Noda and Associates on December 8, 2003.

In December of 2003, Edward K. Noda and Associates prepared an ESA for the Site. At that time Noda and Associates reported that the Site contained two structures, a two-story concrete masonry parking structure located at 321 Saratoga Road and former restaurant building located at 286 Beach Walk. The remainder of the Site consisted of paved and gravel covered parking areas. At the time of the report the restaurant building was reported to be empty with no interior furnishings or fittings. Areas of minor staining were reported on the parking and driveway areas, the likely source

being lubricants from vehicles parked on Site. Suspect ACMs in the form of remnants of spray-on fireproofing, remnants of black mastic behind wall coverings, remnants of gypsum wall boards and associated joint compound, remnants of cementations panels with wire mesh backing, stucco plastering on the exterior or the parking structure and former Hula Hut Restaurant, and remnant of plaster on the interior and exterior walls were observed. These materials were not identified in the previous reports prepared for the building. In addition suspect LBP areas were identified. Noda and Associates recommended testing suspect ACM and lead based paint areas. It is unknown whether such testing activities were ever performed.

5.0 SITE RECONNAISSANCE

On June 7, 2006, Ms. Teri Kazmierczak, a representative of LFR, performed a reconnaissance-level assessment of the Site to observe general site conditions and indications of the possible release(s) of chemicals to the subsurface. Ms. Kazmierczak was unaccompanied during the Site visit. Photographs taken during LFR's site inspection are included in Appendix E. Ms. Kazmierczak's qualifications are included in Appendix F.

5.1 Methodology and Limiting Conditions

LFR was uable to access the interior portions of 286 and 270 Beach Walk, as they were surrounded by a chain-linked fence. The methodology for the site visit included visiting the parking structure, then observing the exteriors areas of the Site.

5.2 General Site Setting

The Site consists of an approximately 30,000- square foot parcel of land addressed as 286 and 270 Beach Walk, 321 Saratoga Road, and a public easement, within the Waikiki District of Honolulu, Hawaii. The topography of the Site is nearly level.

5.3 Subject Property Inspection

The subject Site includes four parcels of land, one of which is improved with a two story public parking structure. Site configuration is described above in Section 2.3. During LFR's investigation, parcels :026 and :027 (addressed as 270 and 286 Beach Walk, respectively) consisted of vacant land covered with gravel. Patches of sparse vegetation were visible on the parcel. These parcels appeared to be one lot and were surrounded by a chain-linked fence and LFR was unable to access the parcels. A small amount of amount of household debris including glass, aluminum, plastic and Styrofoam waste was observed along the exterior portions of the undeveloped areas on-Site. No stockpile soil, pits, ponds, or lagoons were observed on the vacant portions of the Site.

Parcel :048 (addressed as 321 Saratoga Road) is occupied by a public parking structure. The two-story parking structure also contained a basement parking area. Slight petroleum staining, apparently from parked cars, was observed on the asphalt paving on the first and second floor of the parking structure. Several cracks were observed in the concrete on the basement level of the parking structure. Additionally, a storm water catch basin was observed at the entrance to the basement level. No staining was observed along the cracks in the concrete or near the storm water catch basin.

No electrical transformers were observed on-Site. According to the previous Phase I ESA prepared for the Site by Edward K. Noda and Associated in January 1999, three concrete pad-mounted electrical transformers were present on the Site, two of which may have contained PCBs. These transformers appear to have been removed by Hawaii Electric Company (HECO) during demolition activities at the Site.

5.2.1 Hazardous Substances and Petroleum Products

No hazardous substance or petroleum products in connection with the Site beyond what would be considered *de minimis* volumes were readily observed during this investigation.

5.2.2 Storage Tanks

No evidence of ASTs or USTs, vent pipes, fill pipes, or access ways indicating USTs was identified during this investigation.

5.2.3 Odors

No readily noticeable strong, pungent, or noxious odors were identified during this investigation.

5.2.4 Pools of Liquid

No standing surface water, pools, or sumps containing liquids likely to be hazardous substances or petroleum products were identified during this investigation.

5.2.5 Drums

No storage drums were identified during this investigation.

5.2.6 Unidentified Substance Containers

No unidentified substance containers were observed during this investigation.

5.2.7 PCBs

No electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs were identified during this investigation.

5.2.8 Pits, Ponds, or Lagoons

The presence of pits, ponds, or lagoons on the property was investigated during the site visit. No pits, ponds or lagoons were identified during this investigation.

5.2.9 Stained Soil or Pavement

No areas of stained soil or pavement were observed.

5.2.10 Stressed Vegetation

Areas of sparse vegetation and patches of exposed soil were observed in the eastern portion of the Site. Stressed vegetation was observed within areas of sparse vegetation; however, it appears likely excess heat could account for dry or dying vegetation. No other areas of stressed vegetation were observed during this investigation.

5.2.11 Solid Waste

No evidence of areas that are apparently filled or graded suggesting trash construction debris, demolition debris, or other solid waste disposal, or mounds or depressions suggesting trash or other solid waste disposal were identified during the site visit. A small amount of household debris including glass, aluminum, plastic and Styrofoam waste was observed along the exterior portions of the undeveloped areas on-Site.

5.2.12 Wastewater

The Site is serviced by the sanitary sewer system provided by the City and County of Honolulu. However, the site is currently not connected to the city sewer system as the majority of the Site is vacant.

5.2.13 Wells

No dry wells, irrigation wells, injection wells, monitoring wells, abandoned wells, or other wells were observed during this investigation.

5.2.14 Septic Systems

No on-site septic systems or cesspools were observed during this investigation.

6.0 INTERVIEWS

6.1 Interviews with Local Government Officials

No government officials were interviewed during this assessment.

7.0 FINDINGS

This section identifies known or suspect RECs, historical RECs, and *de minimis* conditions obtained during the ESA. No known RECs were identified during this Phase I ESA; however, the following issue of environmental concern was identified during the course of this investigation:

- A Final Report of Hazmat Program Management was prepared by TEC, in July 2001 which stated that ACM located within the former Hula Hut building located at 286 Beach Walk had been properly abated from the building. TEC reported that the DOH Noise, Radiation, and Indoor Air Quality Brach gave final clearance at the Site and considered the case closed. However, during a Phase I ESA prepared by Edward K. Noda and Associates in December of 2003, suspect ACM in the form of remnants of spray-on fireproofing, remnants of black mastic behind wall coverings, remnants of gypsum wall boards and associated joint compound, remnants of cementations panels with wire mesh backing, stucco plastering on the exterior, and remnant of plaster on the interior and exterior walls were observed within the Hula Hut restaurant. In addition suspect LBP areas were identified. Edward K. Noda and Associates recommended testing suspect ACM and LBP areas. It is unknown whether such testing activities were ever performed. The building was later demolished and it is not known whether soil at the Site has been impacted with ACM or LBP.

7.1 De Minimis Conditions

The following issues of environmental interest are considered *de minimis* conditions as they do not present a material risk of harm to public health or the environment and would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies:

- Household debris (as noted in the photographs; Appendix E) was observed throughout the vacant portions of the Site. The debris does not rise to the level of a REC as it appears to consist of non-hazardous materials.
- Slight petroleum staining from parked cars was observed throughout the parking structure on-Site. The slight petroleum staining does not rise to the level of a REC as staining is not present in significant quantities.

8.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment (ESA) of the properties addressed as 270 and 286 Beach Walk, 321 Saratoga Road, and a public easement identified as TMK 2-6-003:058 within the Waikiki District of Honolulu, Hawaii, the property. This report is in general accordance with the ASTM Standard Practice E 1527-00.

At this time, this assessment has revealed no evidence of current or historic recognized environmental conditions in connection with the property; however, there is a potential that soil located on the Site has been impacted from suspect ACM and LBP possibly present within the Hula Hut building located at 286 Beach Walk at the time of building demolition.

9.0 REFERENCES

American Society for Testing and Materials. 2000. E1527-00 – Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment.

Edward K. Noda and Associates. 1999. Phase I Environmental Site Assessment Report, 286, 298 and 321 Beach Walk. January 12, 1999.

Edward K. Noda and Associates. 2003. Phase I Environmental Site Assessment Report, 270 and 286 Beach Walk and 321 Saratoga Road. December 8, 2003.

Environmental Data Resources, Inc. 2006. The EDR Radius Map with Geocheck Report for 270-286 Beach Walk Street, Honolulu, Hawaii. May 26, 2006.

Environmental Data Resources, Inc. 2006. Sanborn Map Report for 270-286 Beach Walk Street, Honolulu, Hawaii. May 26, 2006.

Environmental Data Resources, Inc. 2006. Historical Topographic Map Report for 270-286 Beach Walk Street, Honolulu, Hawaii. May 27, 2006.

R. M. Towill Corporation Aerial Photographs – 1949, 11970, 1978, and 2001.

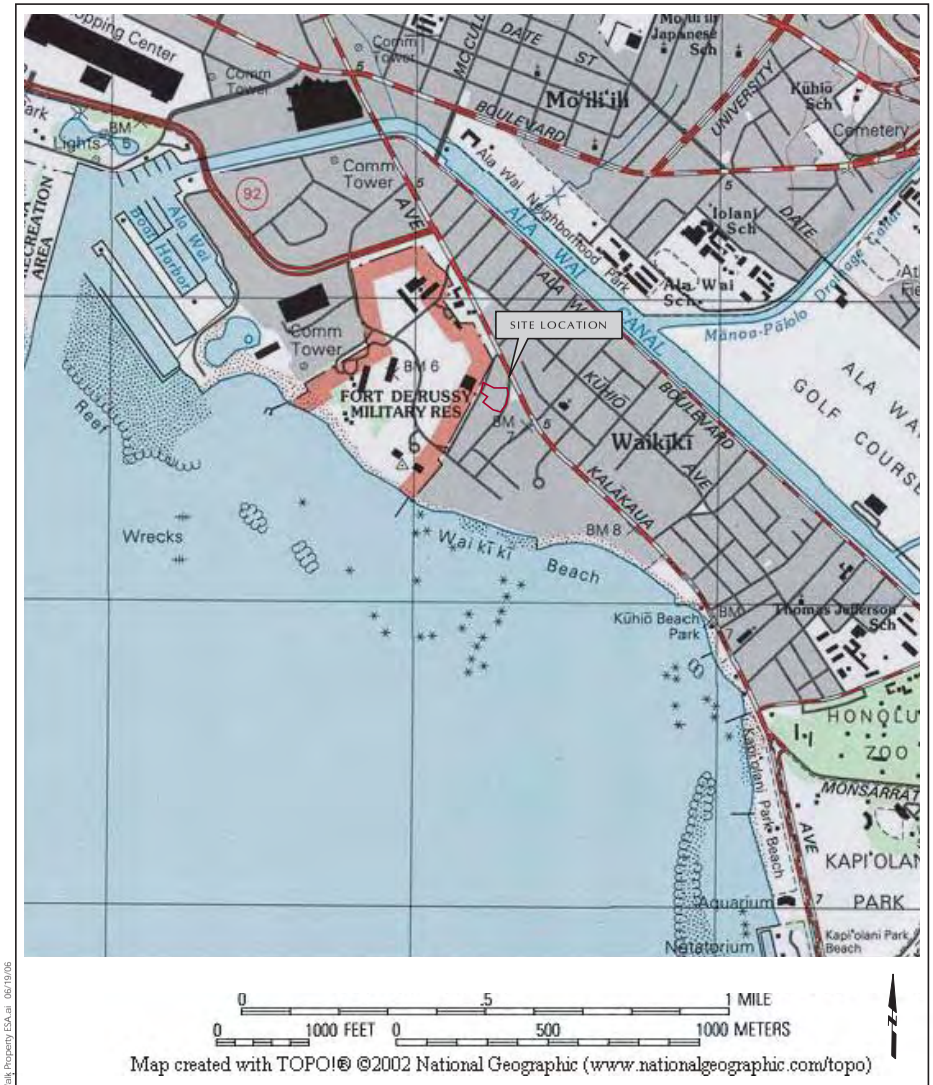
State of Hawaii Department of Health. 1983. Underground Injection Control Program Map, O-13. Honolulu, Hawaii.

The Environmental Company, Inc. 2001. Final Report of Hazmat Program Management for Hilo Haties Beach Walk Property. July 19, 2001

United States Department of Agriculture. 1972. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. USDA. August.

United States Geological Survey. 1983. 7.5 Quadrangle Map, Honolulu, Hawaii.

FIGURES

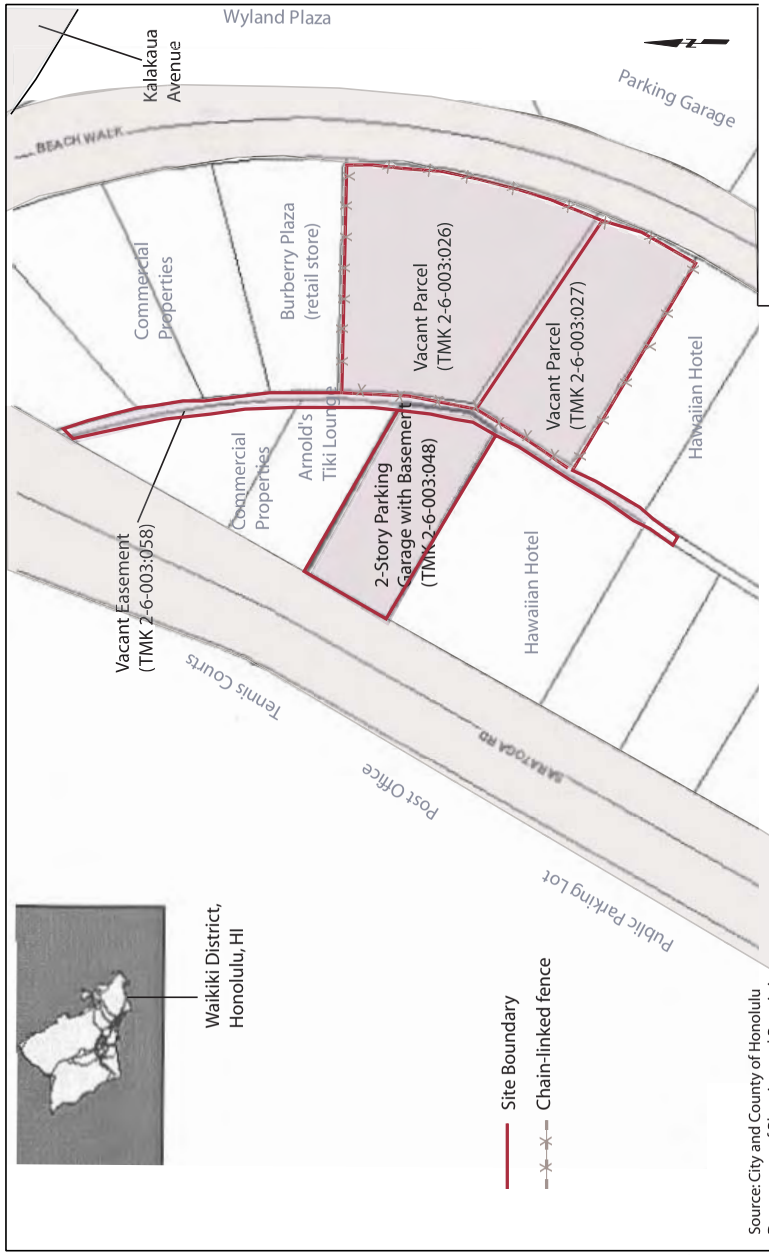


Site Vicinity Map

Waikiki Beach Walk Property, Honolulu, HI

LFR

Figure 1



Site Plan

Waikiki Beachwalk Property, Honolulu, HI

LFR

Figure 2

Site Plan/Waikiki Beach Walk Property/005-11082-00.ai 6/07/06

APPENDIX A

EDR Report

The EDR Radius Map
with GeoCheck®

Waikiki Beachwalk Property
270-286 Beachwalk Street
Honolulu, HI 96815

Inquiry Number: 1685160.6s

May 26, 2006

EDR® Environmental Data Resources Inc

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	**ES1**
Overview Map	**2**
Detail Map	**3**
Map Findings Summary	**4**
Map Findings	**6**
Orphan Summary	**56**
Government Records Searched/Data Currency Tracking	**GR-1**

GEOCHECK ADDENDUM

Physical Setting Source Addendum	**A-1**
Physical Setting Source Summary	**A-2**
Physical Setting SSURGO Soil Map	**A-5**
Physical Setting Source Map	**A-9**
Physical Setting Source Map Findings	**A-10**
Physical Setting Source Records Searched	**A-35**

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2006 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

270-286 BEACHWALK STREET
HONOLULU, HI 96815

COORDINATES

Latitude (North):	21.281100 - 21° 16' 52.0''
Longitude (West):	157.831000 - 157° 49' 51.6''
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	621272.0
UTM Y (Meters):	2353568.8
Elevation:	3 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	21157-C7 HONOLULU, HI
Most Recent Revision:	Not reported

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL RECOVERY	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS	Corrective Action Report
RCRA-TSDF	Resource Conservation and Recovery Act Information
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
US BROWNFIELDS ..... A Listing of Brownfields Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
ODI ..... Open Dump Inventory
TRIS ..... Toxic Chemical Release Inventory System
TSCA ..... Toxic Substances Control Act
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS ..... Section 7 Tracking Systems
ICIS ..... Integrated Compliance Information System
PADS ..... PCB Activity Database System
MLTS ..... Material Licensing Tracking System
MINES ..... Mines Master Index File
FINDS ..... Facility Index System/Facility Registry System
RAATS ..... RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

SWF/LF ..... Permitted Landfills in the State of Hawaii
SPILLS ..... Release Notifications
INST CONTROL ..... Sites with Institutional Controls
VCP ..... Voluntary Response Program Sites
BROWNFIELDS ..... Brownfields Sites

TRIBAL RECORDS

INDIAN RESERV ..... Indian Reservations

EDR PROPRIETARY RECORDS

Manufactured Gas Plants ... EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations EDR Proprietary Historic Gas Stations
EDR Historical Cleaners .... EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CERCLIS-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 02/01/2006 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
STAN SHINKAWN INC	2330 KALAKAUA AVE	1/4 - 1/2 SE	J39	29

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, as provided by EDR, and dated 02/21/2006 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ROYAL HAWAIIAN HOTEL	***2259 KALAKAUA AVE***	***1/8 - 1/4 SE***	***F26***	***20***

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 02/24/2006 has revealed that there are 11 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WAIKIKI GUN CLUB	2142 KALAKAUA AVE	0 - 1/8 NNE	B6	7
OHANA REEF TOWERS	***227 LEWERS ST***	***0 - 1/8 SSW***	***12***	***11***
HALEKULANI HOTEL	***2199 KALIA RD***	***1/8 - 1/4 SSW***	***E14***	***12***

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HAWAII GUN CLUB	339 ROYAL HAWAIIAN AVE	1/8 - 1/4 ESE	D17	15
WAIKIKI BUSINESS PLAZA	***2270 KALAKAUA AVE NO 18***	***1/8 - 1/4 SE***	***F21***	***17***
ROYAL HAWAIIAN SHOOTING CLUB	***2201 KALAKAUA AVE STE A***	***1/8 - 1/4 SE***	***F22***	***17***
KYO YA COMPANY LTD	***2255 KALAKAUA AVE***	***1/8 - 1/4 SE***	***F28***	***22***
HALE KOA HOTEL	***2055 KALIA RD***	***1/8 - 1/4 WNW***	***H32***	***24***
DAIO USA CORP	***2002 KALAKAUA AVE***	***1/8 - 1/4 NNW***	***I35***	***28***
MACYS WEST WAIKIKI	***2314 KALAKAUA AVE***	***1/8 - 1/4 SE***	***36***	***28***
WAIKIKI TRADE CTR	***2255 KUHIO AVE***	***1/8 - 1/4 ESE***	***37***	***28***

STATE AND LOCAL RECORDS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Health.

A review of the SHWS list, as provided by EDR, and dated 08/24/2005 has revealed that there are 26 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WAIKIKI BAZAAR	***2174 KALAKAUA AVE***	***0 - 1/8 ESE***	***B8***	***8***
KING KALAKAUA PLAZA	***2080 KALAKAUA AVE***	***0 - 1/8 N***	***11***	***10***
WAIKIKI GATEWAY PARK	***2044 KALAKAUA AVE***	***1/8 - 1/4 N***	***19***	***15***
JTB OVERSEAS DEVELOPMENT CORPO	***2270 KALAKAUA AVE***	***1/8 - 1/4 SE***	***F20***	***16***
HALE KOA HOTEL	***2055 KALIA RD***	***1/8 - 1/4 WNW***	***H32***	***24***
CHEVRON 2002 KALAKAUA	***2002 KALAKAUA AVE***	***1/8 - 1/4 NNW***	***I33***	***26***
STAN SHINKAWA INC	***2330 KALAKAUA AVE***	***1/4 - 1/2 SE***	***J38***	***29***
THE PAVILLION	***1925 KALAKAUA AVE***	***1/4 - 1/2 NNW***	***41***	***31***
ALA WAI COVE CONDOMINIUM APART	***509 UNIVERSITY AVE***	***1/4 - 1/2 NNE***	***44***	***32***
2319 ALA WAI BOULEVARD (UST RE	***2319 ALA WAI BLVD***	***1/4 - 1/2 E***	***45***	***33***
HOBRON HOTEL	***1744 KAIOO DR***	***1/2 - 1 NW***	***51***	***38***
WAIKIKI SAND VILLA II	250 KAIULANI AVE	1/2 - 1 ESE	52	39
IOLANI SCHOOL PETROLEUM ODOR	***563 KAMOKU ST***	***1/2 - 1 NE***	***53***	***39***
ROGER'S REPAIR INC	***1687 KALAKAUA AVE***	***1/2 - 1 NNW***	***M55***	***43***
OUTRIGGER PRINCE KUHIO HOTEL	***2500 KUHIO AVE***	***1/2 - 1 SE***	***56***	***43***
FORMER KALAKAUA TRANSMISSION I	1665 KALAKAUA AVE	1/2 - 1 NNW	M57	45
ALOHA MOTORS	***1777 KAPIOLANI BLVD***	***1/2 - 1 NNW***	***58***	***45***
ABC STORE UNDERGROUND STORAGE	***2546 LEMON RD***	***1/2 - 1 SE***	***60***	***48***
CONTINENTAL AUTO SERVICES	***1918 ALGAROBA ST***	***1/2 - 1 N***	***61***	***49***
MCDONALD'S RESTAURANT SOIL & G	***2121 S KING ST***	***1/2 - 1 NNE***	***N62***	***50***
ARCO AM/PM #82111 (TEXACO 61-1	2105 S KING ST	1/2 - 1 NNE	N63	51
WILIWILI AND KING STREETS EXCA	***KING ST & WILIWILI ST***	***1/2 - 1 N***	***64***	***51***
2700 SOUTH KING STREET	***2700 S KING ST***	***1/2 - 1 NE***	***65***	***53***
1551 KAPIOLANI BOULEVARD	***1551 KAPIOLANI BLVD***	***1/2 - 1 NW***	***66***	***54***

Lower Elevation	Address	Dist / Dir	Map ID	Page
HAWAII CONVENTION CENTER	***1801 KALAKAUA AVE***	***1/2 - 1 NNW***	***54***	***40***
YACHT HARBOR TOWERS	***1600 ALA MOANA BLVD***	***1/2 - 1 NW***	***59***	***47***

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Active Leaking Underground Storage Tank Log Listing.

A review of the LUST list, as provided by EDR, and dated 02/01/2006 has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
U.S. POSTAL SERVICE - WAIKIKI Facility Status: Site Cleanup Completed Facility Status: Site Cleanup Completed	***330 SARATOGA RD***	***0 - 1/8***	***A1***	***6***
KYOTARU HAWAII CORPORATION Facility Status: Site Cleanup Completed	***2160 KALAKAUA AVE***	***0 - 1/8 E***	***B5***	***7***
YONEOKA AND ASSOCIATES Facility Status: Site Cleanup Completed	***2174/2190 KALAKAUA AVE***	***0 - 1/8 ESE***	***B7***	***8***
CM&D Facility Status: Site Cleanup Completed	***2112 KALAKAUA AVE***	***0 - 1/8 NNE***	***C9***	***9***
KING KALAKAUA PLAZA Facility Status: Site Cleanup Completed	***2080 KALAKAUA AVE***	***0 - 1/8 N***	***11***	***10***
MATSUSHITA INVESTMENT AND DEVE Facility Status: Site Cleanup Completed	***2237 KUHIO AVE***	***1/8 - 1/4 E***	***G23***	***19***
IMM KALAKAUA Facility Status: Site Cleanup Completed Facility Status: Site Cleanup Completed	***2025 KALAKAUA AVE.***	***1/8 - 1/4 NNW***	***24***	***19***
SHERATON WAIKIKI HOTEL Facility Status: Site Cleanup Completed	***2255 KALAKAUA AVE***	***1/8 - 1/4 SE***	***F25***	***20***
ROYAL KUHIO CONDOMINIUMS Facility Status: Site Cleanup Completed	***2240 KUHIO AVE***	***1/8 - 1/4 E***	***G29***	***23***
U.S. ARMED FORCES RECREATION C Facility Status: Case Transferred to HEER	***2055 KALIA RD***	***1/8 - 1/4 WNW***	***H31***	***24***
CHEVRON U.S.A., INC. Facility Status: Site Cleanup Completed	***2002 KALAKAUA AVE***	***1/8 - 1/4 NNW***	***I34***	***27***
JIMMY S CHEVRON SERVICE INC Facility Status: Site Cleanup Completed	***1958 KALAKAUA AVE***	***1/4 - 1/2 NNW***	***40***	***30***
MOANA SURFRIDER HOTEL Facility Status: Site Cleanup Completed	***2365 KALAKAUA AVE***	***1/4 - 1/2 SE***	***42***	***31***
HILTON HAWAIIAN VILLAGE Facility Status: Site Cleanup Completed	***2005 KALIA RD***	***1/4 - 1/2 NW***	***43***	***32***
KING'S VILLAGE SHOPPING CENTER Facility Status: Site Cleanup Completed	***131 KAIULANI AVE***	***1/4 - 1/2 ESE***	***K46***	***34***
AVIS RENT-A-CAR Facility Status: Site Cleanup Completed	***148 KAIULANI AVE***	***1/4 - 1/2 ESE***	***K47***	***35***
ABC STORE #21 Facility Status: Confirmed Release	***2394 KUHIO AVE***	***1/4 - 1/2 ESE***	***48***	***35***
DISCOVERY BAY Facility Status: Site Cleanup Completed	***1778 ALA MOANA BLVD***	***1/4 - 1/2 WNW***	***L49***	***35***
ILIKAI HOTEL Facility Status: Site Cleanup Completed	***1777 ALA MOANA BLVD***	***1/4 - 1/2 WNW***	***L50***	***35***

EXECUTIVE SUMMARY

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health's Listing of Underground Storage Tanks.

A review of the UST list, as provided by EDR, and dated 02/01/2006 has revealed that there are 13 UST sites within approximately 0.25 miles of the target property.

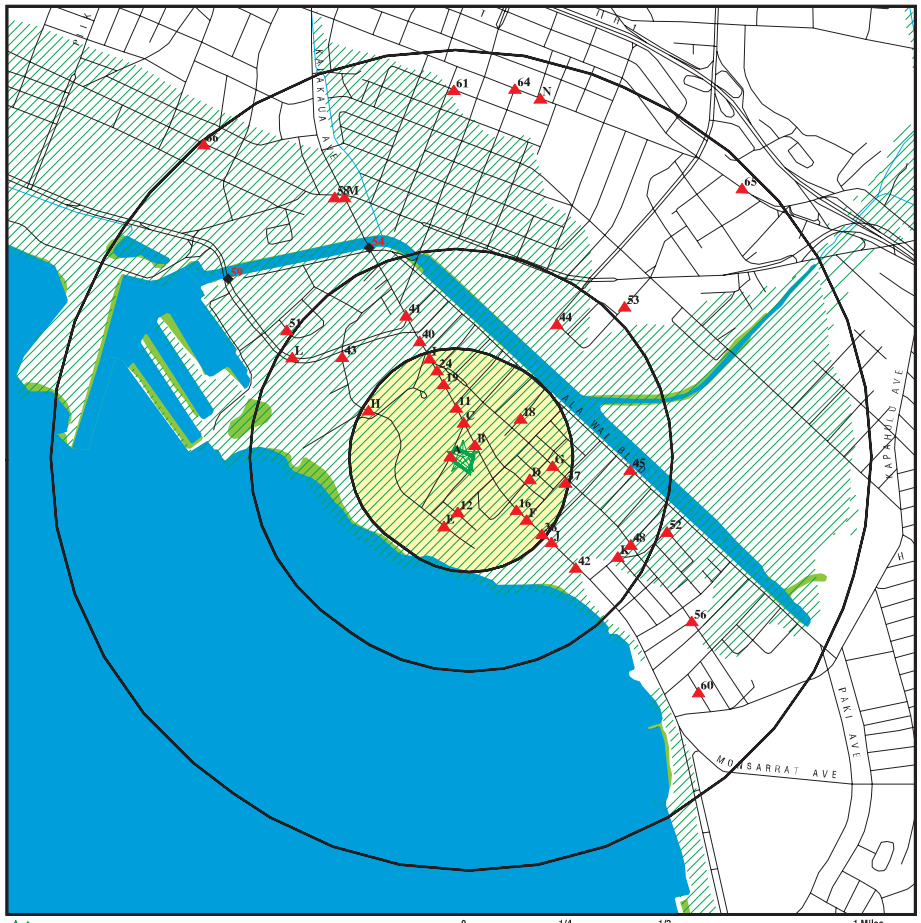
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
U.S. POSTAL SERVICE - WAIKIKI	***330 SARATOGA RD***	***0 - 1/8***	***A1***	***6***
KYOTARU HAWAII CORPORATION	2160 KALAKAUA AVE	0 - 1/8 E	B4	7
YONEOKA AND ASSOCIATES	***2174/2190 KALAKAUA AVE***	***0 - 1/8 ESE***	***B7***	***8***
CM&D	2112 KALAKAUA AVE	0 - 1/8 NNE	C10	9
KING KALAKAUA PLAZA	***2080 KALAKAUA AVE***	***0 - 1/8 N***	***11***	***10***
ROYAL HAWAIIAN MARKET PLACE	333 ROYAL HAWAIIAN AVE	1/8 - 1/4 ESE	D13	12
HALEKULANI HOTEL	2199 KALIA RD	1/8 - 1/4 SSW	E15	14
WAIKIKI SHOPPING PLAZA	2250 KALAKAUA AVE	1/8 - 1/4 SE	16	15
BEACHWALK WASTEWATER PUMP STAT	377 KAIOLU ST	1/8 - 1/4 NE	18	15
IMM KALAKAUA	***2025 KALAKAUA AVE.***	***1/8 - 1/4 NNW***	***24***	***19***
SHERATON WAIKIKI HOTEL	***2255 KALAKAUA AVE***	***1/8 - 1/4 SE***	***F27***	***21***
ROYAL KUHIO CONDOMINIUMS	2240 KUHIO AVE	1/8 - 1/4 E	G30	23
CHEVRON U.S.A., INC.	***2002 KALAKAUA AVE***	***1/8 - 1/4 NNW***	***I34***	***27***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
WAIKIKI BEACHCOMBER HOTEL	FTTS
WAIKIKI MARINA HOTEL	FTTS
KAKAAKO BROWNFIELD PROJECT-UNIT 7	SHWS, FINDS, BROWNFIELDS, INST CONTROL
KAKAAKO BROWNFIELD PROJECT-UNIT 5	SHWS, FINDS
FORT RUGER	SHWS, FINDS, SPILLS
FORT RUGER FORMER FIRING RANGES	SHWS
CANNON CLUB	SHWS, BROWNFIELDS, INST CONTROL
HALAWA STREAM CHANNEL PETROLEUM CONTAMINATION	SHWS
KAKAAKO BROWNFIELD PROJECT-UNIT 10	SHWS, FINDS, BROWNFIELDS
KAKAAKO IMPROVEMENT DISTRICT 7	SHWS, BROWNFIELDS
KEEAUMOKU SUPERBLOCK PROJECT	SHWS, SPILLS, INST CONTROL
KAKAAKO BROWNFIELD PROJECT-UNIT 4	SHWS, FINDS
KAKAAKO BROWNFIELD PROJECT-UNIT 2	SHWS, FINDS
KAKAAKO BROWNFIELD PROJECT-UNIT 1	SHWS, FINDS
STAN SHERIFF SPECIAL EVENTS ARENA	SHWS, FINDS, SPILLS
HAWAII HALL	SHWS
HAWAIIAN BITUMULS PAVING & PRECAST COMPANY, MOKULE	SHWS
HAWAII BITUMULS & PAVING CO.	CERC-NFRAP
KMCAS LANDFILL	SWF/LF
WAIKIKI BEACHCOMBER HOTEL	RCRA-SQG, FINDS
USARMY FORT DERUSSY MILITARY RESERVE	RCRA-SQG, FINDS
ALA WAI STATE BOAT HARBOR WAIKIKI	ERNS
EWA AND WAIKIKI BEACHES NEAR JETTY BETWWEEN DERUSSY BEECH IN	ERNS
WAIKIKI YATCH BASIN ILIKAI HOTEL ALAMOANA BLVD	ERNS
WAIKIKI YACHT CLUB	ERNS
WAIKIKI WATER SYSTEM	FINDS
ROSENBLUM RESIDENCE AT WAIKIKI RANCH	FINDS
WAIKIKI YACHT BASIN, OIL SHEEN	SPILLS
KALAKAUA AVENUE & RYCROFT ST, WAIKIKI AREA	SPILLS
S/V KULU MANU, WAIKIKI BEACH	SPILLS
HAWAIIAN PRINCE HOTEL WAIKIKI	ICIS

OVERVIEW MAP - 1685160.6s



0 1/4 1/2 1 Miles

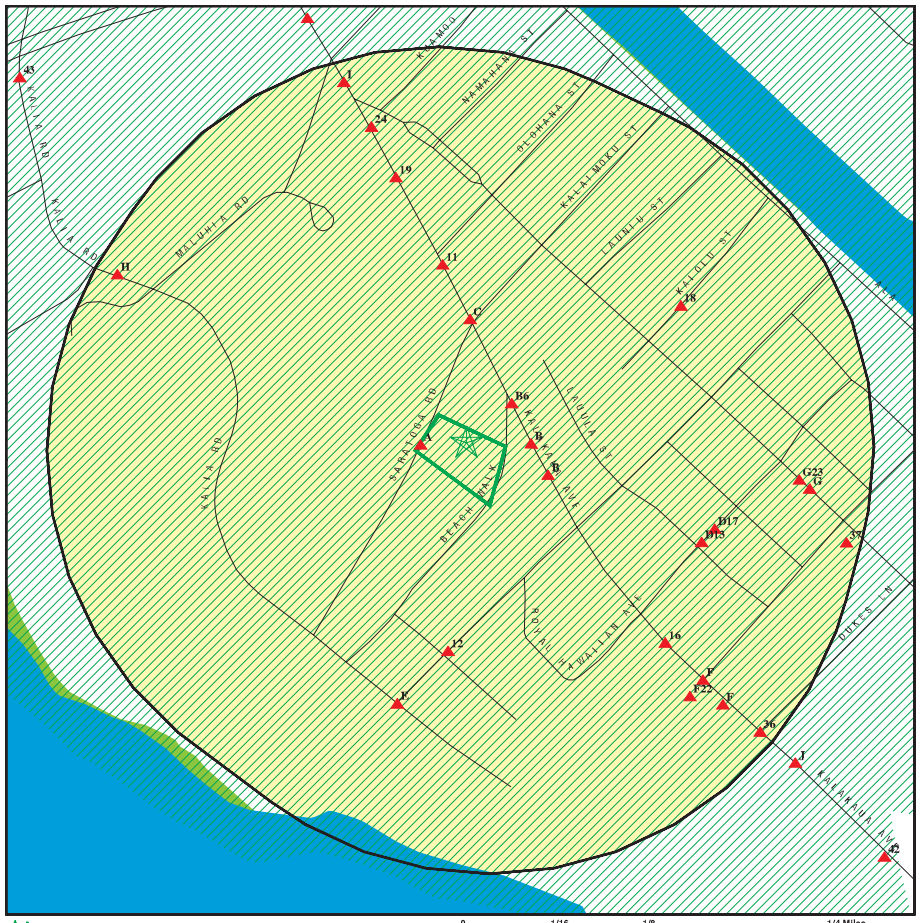
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Waikiki Beachwalk Property ADDRESS: 270-286 Beachwalk Street Honolulu HI 96815 LAT/LONG: 21.2811 / 157.8310	CLIENT: LFR Inc CONTACT: Jon Mollison INQUIRY #: 1685160.6s DATE: May 26, 2006

Copyright © 2006 EDR, Inc. © 2006 Tele Atlas Rel. 07/2005.

DETAIL MAP - 1685160.6s



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Waikiki Beachwalk Property ADDRESS: 270-286 Beachwalk Street Honolulu HI 96815 LAT/LONG: 21.2811 / 157.8310	CLIENT: LFR Inc CONTACT: Jon Mollison INQUIRY #: 1685160.6s DATE: May 26, 2006

Copyright © 2006 EDR, Inc. © 2006 Tele Atlas Rel. 07/2005.

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL RECORDS								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL RECOVERY		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	1	NR	NR	1
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	1	NR	NR	NR	1
RCRA Sm. Quan. Gen.		0.250	2	9	NR	NR	NR	11
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
STATE AND LOCAL RECORDS								
SHWS		1.000	2	4	4	16	NR	26
State Landfill		0.500	0	0	0	NR	NR	0
LUST		0.500	5	6	8	NR	NR	19
UST		0.250	5	8	NR	NR	NR	13
SPILLS		TP	NR	NR	NR	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0
TRIBAL RECORDS								
INDIAN RESERV		1.000	0	0	0	0	NR	0
EDR PROPRIETARY RECORDS								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **U.S. POSTAL SERVICE - WAIKIKI** **LUST** **U003221691**
330 SARATOGA RD **UST** **N/A**
< 1/8 **HONOLULU, HI 96815**
1 ft.

Site 1 of 3 in cluster A

Relative: Higher

Actual: 3 ft.

LUST:

Facility ID:	9-101770
Release ID:	890009
Facility Status Date:	2000-06-22 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Maniulit

Facility ID:	9-101770
Release ID:	040067
Facility Status Date:	2005-12-22 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Li

UST:

Facility ID:	9-101770	Tank ID:	87
Tank Status:	Permanently Out of Use		
Tank Capacity:	6000	Installed:	9/30/1990
Date Closed:	8/11/2004	Substance:	Gasoline
Owner:	U.S. POSTAL SERVICE 850 CHERRY AVENUE Honolulu, HI 96815		

Facility ID:	9-101770	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	6000	Installed:	1/7/1972
Date Closed:	7/30/1990	Substance:	Gasoline
Owner:	U.S. POSTAL SERVICE 850 CHERRY AVENUE Honolulu, HI 96815		

A2 **U.S. POSTAL SERVICE - WAIKIKI** **FINDS** **1006842974**
330 SARATOGA ROAD **110014044756**
< 1/8 **HONOLULU, HI 96815**
1 ft.

Site 2 of 3 in cluster A

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM
HAWAII-UNDERGROUND STORAGE TANK
INTEGRATED COMPLIANCE INFORMATION SYSTEM

A3 **WAIKIKI POST OFFICE** **SPILLS** **S106821019**
330 SARATOGA RD **N/A**
< 1/8 **HONOLULU, HI 96815**
1 ft.

Site 3 of 3 in cluster A

Relative: Higher

Actual: 3 ft.

HI SPILLS:

Case Number:	19890328
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response

WAIKIKI POST OFFICE (Continued) **S106821019**

Assignment Date :	Not reported
Activity Lead :	Not reported
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	U.S. POSTAL SERVICE WAIKIKI STATION, SARATOGA RD. 330
Substances:	Not reported
Incident :	NOTIFICATION OF RELEASE OF PETROLEUM PRODUCT. UST WAS CONFIRMED AS HAVING A LEAK.
Initial :	DOH SENT FOLLOW UP LETTER WITH EPA S FINAL TECHNICAL RULES AND UST s.
Report :	DOH SENT FOLLOW UP LETTER WITH EPA S FINAL TECHNICAL RULES AND UST s.

B4 **KYOTARU HAWAII CORPORATION** **UST** **U003790350**
East **2160 KALAKAUA AVE** **N/A**
< 1/8 **HONOLULU, HI 96815**
93 ft.

Site 1 of 5 in cluster B

Relative: Higher

Actual: 3 ft.

UST:

Facility ID:	9-103722	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	8000	Installed:	1/1/1969
Date Closed:	1/1/1986	Substance:	Gasoline
Owner:	KYOTARU HAWAII CORPORATION 770 KAPIOLANI BLVD, SUITE 702 Honolulu, HI 96815		

B5 **KYOTARU HAWAII CORPORATION** **FINDS** **1006844294**
East **2160 KALAKAUA AVE** **LUST** **110014059393**
< 1/8 **HONOLULU, HI 96815**
93 ft.

Site 2 of 5 in cluster B

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:

Facility ID:	9-103722
Release ID:	010043
Facility Status Date:	2001-12-11 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Takaba

B6 **WAIKIKI GUN CLUB** **RCRA-SQG** **1007370449**
NNE **2142 KALAKAUA AVE** **HIR000135764**
< 1/8 **HONOLULU, HI 96815**
151 ft.

Site 3 of 5 in cluster B

Relative: Higher

Actual: 3 ft.

WAIKIKI GUN CLUB (Continued) **1007370449**

RCRAInfo:
Owner: CHRISTOPHER HAN
EPA ID: HIR000135764
Contact: THOMAS PARK
808-922-6442
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

B7 ESE < 1/8 173 ft. Relative: Higher Actual: 3 ft.

YONEOKA AND ASSOCIATES **LUST U003154769**
2174/2190 KALAKAUA AVE **UST N/A**
HONOLULU, HI 96800

Site 4 of 5 in cluster B

LUST:
Facility ID: 9-103024
Release ID: 950056
Facility Status Date: 1996-07-29 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Okoji

UST:
Facility ID: 9-103024 Tank ID: 1
Tank Status: Permanently Out of Use
Tank Capacity: 500 Installed: Not reported
Date Closed: Not reported Substance: Diesel
Owner: YONEOKA AND ASSOCIATES
1088 BISHOP ST, SUITE 1212
Honolulu, HI 96800

B8 ESE < 1/8 173 ft. Relative: Higher Actual: 3 ft.

WAIKIKI BAZAAR **SHWS 1006819697**
2174 KALAKAUA AVE **FINDS 110013775478**
HONOLULU, HI 96816 **SPILLS**

Site 5 of 5 in cluster B

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : 2174/2190 Kalakaua Ave
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : Not reported
Activity Type : Unregulated UST
Assignment Date : 2004-10-26 00:00:00
Activity Lead : John Peard
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : Yoneoka and Associates
Restricted Use Comm : Not reported

WAIKIKI BAZAAR (Continued) **1006819697**

Ic Relied On In Remedy : Not reported
Unit : Waikiki Bazaar
Sitelist Name : Waikiki Bazaar

HI SPILLS:
Case Number: 19950222-2
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1995-02-22 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: 2174/2190 Kalakaua Ave
Unit: Waikiki Bazaar
Substances: petroleum
Incident : while excavating lot, an old UST was discovered
Initial : Unitek hired by developer to conduct assessment.
Report : Unitek hired by developer to conduct assessment.

C9 NNE < 1/8 362 ft. Relative: Higher Actual: 3 ft.

CM&D **FINDS 1006843727**
2112 KALAKAUA AVE **LUST 110014052997**
HONOLULU, HI 96815

Site 1 of 2 in cluster C

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-103734
Release ID: 020003
Facility Status Date: 2002-06-14 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Li

C10 NNE < 1/8 362 ft. Relative: Higher Actual: 3 ft.

CM&D **UST U003832855**
2112 KALAKAUA AVE **N/A**
HONOLULU, HI 96815

Site 2 of 2 in cluster C

UST:
Facility ID: 9-103734 Tank ID: R-1
Tank Status: Permanently Out of Use
Tank Capacity: 250 Installed: Not reported
Date Closed: 10/17/2001 Substance: Diesel
Owner: THE HONU GROUP
999 BISHOP ST, SUTE 2750
Honolulu, HI 96815

11 North < 1/8 540 ft. — **KING KALAKAUA PLAZA**, **2080 KALAKAUA AVE**, **HONOLULU, HI 96815** — **SHWS, LUST, SPILLS, UST** — **U003154872**, **N/A**

Relative: Higher

Actual: 3 ft.

SHWS:

Supplement :	Block bounded by Kalakaua/Olohana/Kuhio/Kalanimoku
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	Not reported
Activity Type :	Remedial
Assignment Date :	1995-11-16 00:00:00
Activity Lead :	Greg Olmsted
Assignment End Date :	1996-04-08 00:00:00
End fill :	1996-04-08 00:00:00
Result fill :	No Further Action (NFA)-Unrestricted Use
Overall Status :	SDAR NFA
File Under :	K. Young-Kalakaua Partners
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	King Kalakaua Plaza Development
Sitelist Name :	King Kalakaua Plaza Development

LUST:

Facility ID:	9-103235
Release ID:	960085
Facility Status Date:	2000-03-17 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Maniulit

HI SPILLS:

Case Number:	19951114-0900
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	1995-11-14 00:00:00
Activity Lead :	Chris Takeno
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Block bounded by Kalakaua/Olohana/Kuhio/Kalanimoku
Unit:	Nike Town Building (2080 Kalakaua Ave)
Substances:	Gasoline
Incident :	Environmental contractor Dames & Moore during a phase II investigation found possible hydrocarbon contamination on groundwater (TPH gas 2,000mg/L). A sheen was noticed on the sample vial. Fed Ex boxes (36 total), one was opened and released white powdery substance.
Initial :	None Sample taken by HFD analyzed by SLD. Determined not to contain B. Anthracis.
Report :	None Sample taken by HFD analyzed by SLD. Determined not to contain B. Anthracis.

Case Number:	20011017-1508
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response

KING KALAKAUA PLAZA (Continued) — **U003154872**

Assignment Date :	2001-10-17 00:00:00
Activity Lead :	Terry Corpus
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Block bounded by Kalakaua/Olohana/Kuhio/Kalanimoku
Unit:	Fed Ex boxes with white powdery substance
Substances:	Not reported
Incident :	Environmental contractor Dames & Moore during a phase II investigation found possible hydrocarbon contamination on groundwater (TPH gas 2,000mg/L). A sheen was noticed on the sample vial. Fed Ex boxes (36 total), one was opened and released white powdery substance.
Initial :	None Sample taken by HFD analyzed by SLD. Determined not to contain B. Anthracis.
Report :	None Sample taken by HFD analyzed by SLD. Determined not to contain B. Anthracis.

UST:

Facility ID:	9-103235	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	300	Installed:	Not reported
Date Closed:	7/24/1996	Substance:	Diesel
Owner:	K. YOUNG KALAKAUA PARTNERS INC. 841 BISHOP ST, SUITE 2250 Honolulu, HI 96815		

---

12 SSW < 1/8 542 ft. — **OHANA REEF TOWERS**, **227 LEWERS ST**, **HONOLULU, HI 96815** — **RCRA-SQG, FINDS, HAZNET** — **1004689038**, **HIR000096875**

Relative: Higher

Actual: 3 ft.

RCRAInfo:

Owner:	OHANA REEF TOWERS (808) 924-6352
EPA ID:	HIR000096875
Contact:	DENNIS MIHO (808) 924-6352
Classification:	Conditionally Exempt Small Quantity Generator
TSDF Activities:	Not reported
Violation Status:	No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:

Gepaid:	HIR000096875
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Los Angeles
Tons:	0.20
Facility Address 2:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Not reported
Contact:	DENNIS MIHO
Telephone:	(808) 924-6352
Mailing Name:	Not reported
Mailing Address:	227 LEWERS ST HONOLULU, HI 96815

OHANA REEF TOWERS (Continued) **1004689038**

County: Not reported

Gepaid: HIR000096875
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Los Angeles
Tons: 0.20
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Not reported
Contact: DENNIS MIHO
Telephone: (808) 924-6352
Mailing Name: Not reported
Mailing Address: 227 LEWERS ST
HONOLULU, HI 96815
County: Not reported

D13 ESE 1/8-1/4 767 ft. — **Relative: Higher** — **Actual: 3 ft.**

ROYAL HAWAIIAN MARKET PLACE — **UST** — **U003221622**
333 ROYAL HAWAIIAN AVE — **N/A**
HONOLULU, HI 96815

Site 1 of 2 in cluster D

UST:
Facility ID: 9-100874 — Tank ID: R-1
Tank Status: Permanently Out of Use
Tank Capacity: 5000 — Installed: Not reported
Date Closed: 2/1/1999 — Substance: Gasoline
Owner: ATELIER USA INC
C/O KENNETH WONG, ESQ 745 FORT ST, STE 600
Honolulu, HI 96815

E14 SSW 1/8-1/4 782 ft. — **Relative: Higher** — **Actual: 3 ft.**

HALEKULANI HOTEL — **RCRA-SQG** — **1004688879**
2199 KALIA RD — **FINDS** — **HID984467464**
HONOLULU, HI 96815 — **HAZNET**
SPILLS

Site 1 of 2 in cluster E

RCRAInfo:
Owner: HALEKULANI CORP
(808) 536-8794
EPA ID: HID984467464

Contact: MARK RUGENSTEIN
(808) 923-2311

Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM
HAWAII-UNDERGROUND STORAGE TANK
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HALEKULANI HOTEL (Continued) **1004688879**

HAZNET:
Gepaid: HID984467464
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Los Angeles
Tons: 0.20
Facility Address 2: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Not reported
Contact: MARK RUGENSTEIN
Telephone: (808) 923-2311
Mailing Name: Not reported
Mailing Address: 2199 KALIA RD
HONOLULU, HI 96815
County: Not reported

Gepaid: HID984467464
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Los Angeles
Tons: 0.04
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Not reported
Contact: MARK RUGENSTEIN
Telephone: (808) 923-2311
Mailing Name: Not reported
Mailing Address: 2199 KALIA RD
HONOLULU, HI 96815
County: Not reported

Gepaid: HID984467464
TSD EPA ID: CAD028409019
Gen County: 99
Tsd County: 99
Tons: 0.22
Facility Address 2: Not reported
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Contact: MARK RUGENSTEIN
Telephone: (808) 923-2311
Mailing Name: Not reported
Mailing Address: 2199 KALIA RD
HONOLULU, HI 96815
County: 99

Gepaid: HID984467464
TSD EPA ID: CAD028409019
Gen County: 99
Tsd County: 99
Tons: 0.12
Facility Address 2: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: MARK RUGENSTEIN
Telephone: (808) 923-2311
Mailing Name: Not reported
Mailing Address: 2199 KALIA RD

HALEKULANI HOTEL (Continued) **1004688879**

HONOLULU, HI 96815
County 99

Gepaid: HID984467464
TSD EPA ID: Not reported
Gen County: Not reported
Tsd County: Los Angeles
Tons: 0.91
Facility Address 2: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Transfer Station
Contact: MARK RUGENSTEIN
Telephone: (808) 923-2311
Mailing Name: Not reported
Mailing Address: 2199 KALIA RD
HONOLULU, HI 96815
County Not reported

HI SPILLS:
Case Number: 19911210
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Halekulani Hotel
Substances: Gasoline
Incident : GASOLINE SPILL FROM HALE KULANI HOTEL
Initial : HFD, DPW, AND USCG ALL RESPONDED
Report : HFD, DPW, AND USCG ALL RESPONDED

E15 SSW 1/8-1/4 782 ft. **HALEKULANI HOTEL** **UST** **1000601513**
2199 KALIA RD **N/A**
HONOLULU, HI 96815

Relative: Higher **Actual: 3 ft.**

Site 2 of 2 in cluster E

UST:
Facility ID: 9-101822 Tank ID: M-2
Tank Status: Currently In Use
Tank Capacity: 8000 Installed: 1/1/1983
Date Closed: Not reported Substance: Diesel
Owner: HALEKULANI HOTEL
2199 KALIA ROAD
Honolulu, HI 96815

Facility ID: 9-101822 Tank ID: M-1
Tank Status: Currently In Use
Tank Capacity: 8000 Installed: 1/1/1983
Date Closed: Not reported Substance: Diesel
Owner: HALEKULANI HOTEL
2199 KALIA ROAD
Honolulu, HI 96815

16 SE 1/8-1/4 797 ft. **WAIKIKI SHOPPING PLAZA** **UST** **U003711693**
2250 KALAKAUA AVE **N/A**
HONOLULU, HI 96815

Relative: Higher **Actual: 3 ft.**

UST:
Facility ID: 9-103520 Tank ID: M-1
Tank Status: Currently In Use
Tank Capacity: 1000 Installed: 9/1/1977
Date Closed: Not reported Substance: Diesel
Owner: WAIKIKI SHOPPING PLAZA
2270 KALAKAUA AVE SUTE 1800
Honolulu, HI 96815

D17 ESE 1/8-1/4 800 ft. **HAWAII GUN CLUB** **RCRA-SQG** **1007202222**
339 ROYAL HAWAIIAN AVE **HIR000135509**
HONOLULU, HI 96815

Relative: Higher **Actual: 3 ft.**

Site 2 of 2 in cluster D

RCRAInfo:
Owner: CHRISTOPHER HAN
EPA ID: HIR000135509
Contact: THOMAS PARK
808-924-8337
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

---

18 NE 1/8-1/4 807 ft. **BEACHWALK WASTEWATER PUMP STATION** **UST** **U003154539**
377 KAIOLU ST **N/A**
HONOLULU, HI 96815

Relative: Higher **Actual: 3 ft.**

UST:
Facility ID: 9-101975 Tank ID: M-1
Tank Status: Currently In Use
Tank Capacity: 6000 Installed: 1/8/1988
Date Closed: Not reported Substance: Diesel
Owner: C&C HNL - DEPT OF ENVIRONMENTAL SERVICES
1000 ULU'OHIA STREET, SUITE 308
Honolulu, HI 96815

---

19 North 1/8-1/4 867 ft. **WAIKIKI GATEWAY PARK** **SHWS** **S106821017**
2044 KALAKAUA AVE **SPILLS** **N/A**
HONOLULU, HI

Relative: Higher **Actual: 3 ft.**

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Screening
Assignment Date : 2004-05-20 00:00:00
Activity Lead : Melody Calisay

WAIKIKI GATEWAY PARK (Continued) **S106821017**

Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : City and County of Honolulu, Department of Parks and Recreation, Parks & Playgrounds
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Gateway Park Explosion
Sitelist Name : Gateway Park Explosion

HI SPILLS:
Case Number: 19941208-2
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Bill Perry
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Gateway Park Explosion
Substances: gas (unknown) explosion
Incident : At approx. 10:00 p.m. to 2:30 a.m. on 12/8/94-12/9/94, an undetermined type & amount of gas accumulated in subsurface conduits operated by HECO, whom energized a secondary electrical supply line. The line arced/sparked and ignited the gas.
Initial : DOH, OCD, Public Works, GASCO, GTE, HECO, monitoring for CECs. ER completed. Greg Olmsted is the RPM.
Report : DOH, OCD, Public Works, GASCO, GTE, HECO, monitoring for CECs. ER completed. Greg Olmsted is the RPM.

F20
SE
1/8-1/4
986 ft.

Relative: Higher

Actual: 3 ft.

JTB OVERSEAS DEVELOPMENT CORPORATION **SHWS 1006820787**
2270 KALAKAUA AVE **FINDS 110013787982**
HONOLULU, HI 96815

Site 1 of 7 in cluster F

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : ERRF
Agreement/program : State Site
Activity Type : Remedial
Assignment Date : 2004-07-26 00:00:00
Activity Lead : Laura Young
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : JTB Overseas Development Corporation
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported

JTB OVERSEAS DEVELOPMENT CORPORATION (Continued) **1006820787**

Unit : JTB Overseas Development Corporation
Sitelist Name : JTB Overseas Development Corporation

F21
SE
1/8-1/4
986 ft.

Relative: Higher

Actual: 3 ft.

WAIKIKI BUSINESS PLAZA **RCRA-SQG 1000294978**
2270 KALAKAUA AVE NO 1800 **FINDS HID981665342**
HONOLULU, HI 96815

Site 2 of 7 in cluster F

RCRAInfo:
Owner: WAIKIKI BUSINESS PLAZA INC
(808) 923-1191
EPA ID: HID981665342

Contact: Not reported

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

F22
SE
1/8-1/4
990 ft.

Relative: Higher

Actual: 3 ft.

ROYAL HAWAIIAN SHOOTING CLUB **RCRA-SQG 1001076466**
2201 KALAKAUA AVE STE A402 **FINDS HIR000000463**
HONOLULU, HI 96815 **HAZNET**

Site 3 of 7 in cluster F

RCRAInfo:
Owner: ROYAL HAWAIIAN ENTERTAINMENT
(808) 591-8374
EPA ID: HIR000000463

Contact: WARREN KAHAPEA
(808) 922-4122

Classification: Small Quantity Generator
TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated: HAR 11-265-173(a)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-262-34(a)(2)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-262-34(a)(3)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-265-35
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

ROYAL HAWAIIAN SHOOTING CLUB (Continued) **1001076466**

Regulation Violated: HAR 11-262-34(a)(3)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-262-34(a)(3)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-265-37(a)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-262(d)(5)(i)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 04/21/2004
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: HAR 11-262-34(d)(5)(i)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 12/11/2003
Actual Date Achieved Compliance: 05/24/2004

Regulation Violated: 11-262-34(a)(3)
Area of Violation: GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined: 12/11/2003
Actual Date Achieved Compliance: 05/24/2004

There are 1 violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	20040524

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:
Gepaid: HIR000000463
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 1
Facility Address 2: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Other
Contact: WARREN KAHAPEA
Telephone: (808) 922-4122
Mailing Name: Not reported
Mailing Address: 2201 KALAKAUA AVE STE A402
HONOLULU, HI 96815
County 99

G23 East 1/8-1/4 1059 ft. **Relative: Higher** **Actual: 3 ft.**

MATSUSHITA INVESTMENT AND DEVELO **FINDS 1006842075**
2237 KUHIO AVE **LUST 110014034721**
HONOLULU, HI 96815

Site 1 of 3 in cluster G

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-103083
Release ID: 960007
Facility Status Date: 1996-03-11 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Ruiz

---

24 NNW 1/8-1/4 1062 ft. **Relative: Higher** **Actual: 3 ft.**

IMM KALAKAUA **LUST U001235162**
2025 KALAKAUA AVE. **UST N/A**
HONOLULU, HI 96815

LUST:
Facility ID: 9-100328
Release ID: 980144
Facility Status Date: 2000-07-07 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Maniulit

Facility ID: 9-100328
Release ID: 940190
Facility Status Date: 2000-07-07 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Maniulit

Facility ID: 9-100328
Release ID: 050016
Facility Status Date: 2005-04-20 00:00:00
Facility Status: Confirmed Release
Project Officer: Westerman

UST:
Facility ID: 9-100328 Tank ID: 89
Tank Status: Currently In Use
Tank Capacity: 10000 Installed: 2/6/1985
Date Closed: Not reported Substance: Gasoline
Owner: ALOHA PETROLEUM, LTD.
1132 BISHOP STREET, SUITE 1700
Honolulu, HI 96815

Facility ID: 9-100328 Tank ID: 87b
Tank Status: Currently In Use
Tank Capacity: 10000 Installed: 2/6/1985
Date Closed: Not reported Substance: Gasoline
Owner: ALOHA PETROLEUM, LTD.
1132 BISHOP STREET, SUITE 1700
Honolulu, HI 96815

Facility ID: 9-100328 Tank ID: 92
Tank Status: Currently In Use
Tank Capacity: 10000 Installed: 2/6/1985
Date Closed: Not reported Substance: Gasoline

IMM KALAKAUA (Continued) **U001235162**

Owner: ALOHA PETROLEUM, LTD.
1132 BISHOP STREET, SUITE 1700
Honolulu, HI 96815

Facility ID:	9-100328	Tank ID:	87a
Tank Status:	Currently In Use		
Tank Capacity:	10000	Installed:	2/6/1985
Date Closed:	Not reported	Substance:	Gasoline
Owner:	ALOHA PETROLEUM, LTD. 1132 BISHOP STREET, SUITE 1700 Honolulu, HI 96815		

Facility ID:	9-100328	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	550	Installed:	2/6/1985
Date Closed:	8/10/1994	Substance:	Used Oil
Owner:	ALOHA PETROLEUM, LTD. 1132 BISHOP STREET, SUITE 1700 Honolulu, HI 96815		

F25 **SHERATON WAIKIKI HOTEL** **FINDS** **1006842898**
SE **2255 KALAKAUA AVE** **LUST** **11001404388 2**
1/8-1/4 **HONOLULU, HI 96815**
1097 ft.

Relative: Higher

Actual: 3 ft.

Site 4 of 7 in cluster F

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:

Facility ID:	9-102650
Release ID:	930027
Facility Status Date:	1997-09-03 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Ichinotsubo

F26 **ROYAL HAWAIIAN HOTEL** **FINDS** **1004689010**
SE **2259 KALAKAUA AVE** **HAZNET** **HIR000076182**
1/8-1/4 **HONOLULU, HI 96815** **RCRA-LQG**
1097 ft. **UST**

Relative: Higher **LUST**

Actual: 3 ft.

Site 5 of 7 in cluster F

RCRAInfo:

Owner:	KYO YA COMPANY LTD (808) 931-8888
EPA ID:	HIR000076182
Contact:	DAVID LEE (808) 931-8888
Classification:	Large Quantity Generator
TSDF Activities:	Not reported

ROYAL HAWAIIAN HOTEL (Continued) **1004689010**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:

Gepaid:	HIR000076182
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Los Angeles
Tons:	0.27
Facility Address 2:	Not reported
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Transfer Station
Contact:	DAVID LEE/ENV MGR
Telephone:	(808) 931-8888
Mailing Name:	Not reported
Mailing Address:	2255 KALAKAUA AVE HONOLULU, HI 96815 - 2579
County	Not reported

UST:

Facility ID:	9-102646	Tank ID:	R-M-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	1000	Installed:	12/30/1970
Date Closed:	11/16/1992	Substance:	Diesel
Owner:	KYO-YA COMPANY, INC 2255 KALAKAUA AVE, 2ND FLOOR Honolulu, HI 96815		

LUST:

Facility ID:	9-102646
Release ID:	930047
Facility Status Date:	1993-05-17 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Assigned

F27 **SHERATON WAIKIKI HOTEL** **SPILLS** **U001236003**
SE **2255 KALAKAUA AVE** **UST** **N/A**
1/8-1/4 **HONOLULU, HI 96815**
1097 ft.

Relative: Higher

Actual: 3 ft.

Site 6 of 7 in cluster F

HI SPILLS:

Case Number:	19930830-1
Island:	Oahu
Numerical Quantity:	1.5
Less Or Greater Than :	Not reported
Units :	Gallons
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Not reported
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	Sheraton Waikiki Hotel roadway connecting Kalia Rd & Helumoa Rd
Substances:	Diesel Fuel #2

SHERATON WAIKIKI HOTEL (Continued) **U001236003**

Incident : On 08/25/93, at about 10:45PM, the Sheraton Waikiki Hotel experienced a minor oil spill. Approximately 1.5 Gals of #2 Diesel spilled from a vent onto the Hotel's roadway connecting Kalia Rd & Helumoa Rd. The Vent is connected to 100

Initial : Hotel Security responded by calling HPD. HFD & Hotel Housekeeping Dept used absorbents to clean up the spill. Spill was confined to Roadway. Unitek was to be called in to properly dispose of absorbents. Hotel Engineering was investig

Report : Hotel Security responded by calling HPD. HFD & Hotel Housekeeping Dept used absorbents to clean up the spill. Spill was confined to Roadway. Unitek was to be called in to properly dispose of absorbents. Hotel Engineering was investig

UST:

Facility ID:	9-102650	Tank ID:	4
Tank Status:	Currently In Use		
Tank Capacity:	2500	Installed:	12/30/1992
Date Closed:	Not reported	Substance:	Diesel
Owner:	KYO-YA COMPANY, INC 2255 KALAKAUA AVE, 2ND FLOOR Honolulu, HI 96815		

Facility ID:	9-102650	Tank ID:	R-M-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	1000	Installed:	12/30/1971
Date Closed:	11/9/1992	Substance:	Diesel
Owner:	KYO-YA COMPANY, INC 2255 KALAKAUA AVE, 2ND FLOOR Honolulu, HI 96815		

F28 **KYO YA COMPANY LTD** **RCRA-SQG** **1005443250**
SE **2255 KALAKAUA AVE** **FINDS** **HIR000116178**
1/8-1/4 **HONOLULU, HI 96815** **HAZNET**
1097 ft.

Site 7 of 7 in cluster F

Relative: Higher

Actual: 3 ft.

RCRAInfo:

Owner:	KYO YA COMPANY LTD (808) 922-4422
EPA ID:	HIR000116178
Contact:	ERIC AU (808) 922-4422
Classification:	Small Quantity Generator
TSDF Activities:	Not reported
Violation Status:	No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

HAZNET:

Gepaid:	HIR000116178
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Los Angeles
Tons:	0.22
Facility Address 2:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Transfer Station
Contact:	DAVID LEE

KYO YA COMPANY LTD (Continued) **1005443250**

Telephone:	(808) 931-8600
Mailing Name:	Not reported
Mailing Address:	2255 KALAKAUA AVE HONOLULU, HI 96815 - 2579
County	Not reported
Gepaid:	HIR000116178
TSD EPA ID:	Not reported
Gen County:	Not reported
Tsd County:	Los Angeles
Tons:	0.22
Facility Address 2:	Not reported
Waste Category:	Off-specification, aged, or surplus organics
Disposal Method:	Transfer Station
Contact:	DAVID LEE
Telephone:	(808) 931-8600
Mailing Name:	Not reported
Mailing Address:	2255 KALAKAUA AVE HONOLULU, HI 96815 - 2579
County	Not reported

G29 **ROYAL KUHIO CONDOMINIUMS** **FINDS** **1006843615**
East **2240 KUHIO AVE** **LUST** **110014051818**
1/8-1/4 **HONOLULU, HI 96815**
1100 ft.

Site 2 of 3 in cluster G

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:

Facility ID:	9-103574
Release ID:	000065
Facility Status Date:	2001-04-02 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Li

G30 **ROYAL KUHIO CONDOMINIUMS** **UST** **U003711723**
East **2240 KUHIO AVE** **N/A**
1/8-1/4 **HONOLULU, HI 96815**
1100 ft.

Site 3 of 3 in cluster G

Relative: Higher

Actual: 3 ft.

UST:

Facility ID:	9-103574	Tank ID:	R-M-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	550	Installed:	Not reported
Date Closed:	2/21/2000	Substance:	Diesel
Owner:	ROYAL KUHIO CONDOMINIUM ASSOCIATION OF APT OWNERS 2240 KUHIO AVE Honolulu, HI 96815		

H31 WNW 1/8-1/4 1240 ft. Relative: Higher Actual: 3 ft.

U.S. ARMED FORCES RECREATION CTR — **FINDS 1006843043**, **LUST 110014045540**
2055 KALIA RD
HONOLULU, HI 96815

Site 1 of 2 in cluster H

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-102744
Release ID: 930075
Facility Status Date: 1999-02-18 00:00:00
Facility Status: Case Transferred to HEER
Project Officer: HEER

H32 WNW 1/8-1/4 1240 ft. Relative: Higher Actual: 3 ft.

HALE KOA HOTEL — **RCRA-SQG 1007092121**, **SHWS HID984469452**, **SPILLS**
2055 KALIA RD
HONOLULU, HI 96815

Site 2 of 2 in cluster H

RCRAInfo:
Owner: JOHN JEFFERIS
(808) 955-0555
EPA ID: HID984469452
Contact: DAVE HOLLWAY
(808) 955-9190
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : Not reported
Activity Type : Screening
Assignment Date : 2004-02-06 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : 2004-02-06 00:00:00
End fill : 2004-02-06 00:00:00
Result fill : Addressed Under DERP
Overall Status : SDAR NFA
File Under : Hale Koa Hotel
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Hale Koa Hotel
Sitelist Name : Hale Koa Hotel

HI SPILLS:
Case Number: 19930414-1
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported

HALE KOA HOTEL (Continued) — **1007092121**

Activity Lead : Pierette Arroyo
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: U.S. Armed Forces Recreation Center, Fort Derussy, 2055 Kalia Road, Honolulu, Oahu, HI 96815
Substances: Petroleum
Incident : 3 -6 Diameter by 5 -6 Long Tank was discovered during excavation for new sewer line. Military people were excavating the sewer trench at the time.
Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
Transformer (pad-mount) oil leaking into secondary containment, then overfilled from rains and onto soil. Sample taken and being run for PCB. Bldg T-111 (21 gal); 2058 (25 gal)
Initial : U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater.
None
Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
Report : U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater.
Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
None

Case Number: 20021114-1519
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 2002-11-14 00:00:00
Activity Lead : TC/MC
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Excavating for Water Line
Substances: Not reported
Incident : 3 -6 Diameter by 5 -6 Long Tank was discovered during excavation for new sewer line. Military people were excavating the sewer trench at the time.
Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
Transformer (pad-mount) oil leaking into secondary containment, then overfilled from rains and onto soil. Sample taken and being run for PCB. Bldg T-111 (21 gal); 2058 (25 gal)
Initial : U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater.
None
Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
Report : U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater.

HALE KOA HOTEL (Continued) **1007092121**

Caller reported of petroleum release during ground excavation for water line.
Release occurred approx 1 week before notification as a result of lab sampling.
Test indicated TPH oil/diesel present.
None

Case Number:	20040206-1155
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Gallons
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Terry Corpus
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	Transformers by Building T-111 and 2058 Maluhia Road, Ft. DeRussy
Substances:	Transformer Oil
Incident :	3 -6 Diameter by 5 -6 Long Tank was discovered during excavation for new sewer line. Military people were excavating the sewer trench at the time. Caller reported of petroleum release during ground excavation for water line. Release occurred approx 1 week before notification as a result of lab sampling. Test indicated TPH oil/diesel present. Transformer (pad-mount) oil leaking into secondary containment, then overfilled from rains and onto soil. Sample taken and being run for PCB. Bldg T-111 (21 gal); 2058 (25 gal)
Initial :	U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater. None Caller reported of petroleum release during ground excavation for water line. Release occurred approx 1 week before notification as a result of lab sampling. Test indicated TPH oil/diesel present.
Report :	U.S. Army Engineers formulated plan for removal of tank & petroleum for groundwater. Caller reported of petroleum release during ground excavation for water line. Release occurred approx 1 week before notification as a result of lab sampling. Test indicated TPH oil/diesel present. None

---

I33 **CHEVRON 2002 KALAKAUA** **SHWS 1006820021**
NNW **2002 KALAKAUA AVE** **FINDS 110013779045**
1/8-1/4 **HONOLULU, HI 96815**
1242 ft.

Relative: Higher

Actual: 3 ft.

Site 1 of 3 in cluster I

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM
HAWAII-UNDERGROUND STORAGE TANK

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	Not reported
Activity Type :	ISST
Assignment Date :	1997-09-30 00:00:00

CHEVRON 2002 KALAKAUA (Continued) **1006820021**

Activity Lead :	Unknown
Assignment End Date :	1997-10-01 00:00:00
End fill :	1997-10-01 00:00:00
Result fill :	NFA
Overall Status :	SDAR NFA
File Under :	Chevron USA Products Company
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	Chevron 2002 Kalakaua
Sitelist Name :	Chevron 2002 Kalakaua

I34 **CHEVRON U.S.A., INC.** **LUST U001235436**
NNW **2002 KALAKAUA AVE** **UST N/A**
1/8-1/4 **HONOLULU, HI 96815**
1242 ft.

Relative: Higher

Actual: 3 ft.

Site 2 of 3 in cluster I

LUST:

Facility ID:	9-101266
Release ID:	920073
Facility Status Date:	1997-06-10 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Okoji

UST:

Facility ID:	9-101266	Tank ID:	R-4
Tank Status:	Permanently Out of Use		
Tank Capacity:	1000	Installed:	Not reported
Date Closed:	Not reported	Substance:	Used Oil
Owner:	DAIO USA CORP CENTURY CENTER, SUITE 705 / 1750 KALAKAUA AVE Honolulu, HI 96815		

Facility ID:	9-101266	Tank ID:	R-3
Tank Status:	Permanently Out of Use		
Tank Capacity:	5000	Installed:	Not reported
Date Closed:	Not reported	Substance:	Gasoline
Owner:	DAIO USA CORP CENTURY CENTER, SUITE 705 / 1750 KALAKAUA AVE Honolulu, HI 96815		

Facility ID:	9-101266	Tank ID:	R-2
Tank Status:	Permanently Out of Use		
Tank Capacity:	10000	Installed:	Not reported
Date Closed:	Not reported	Substance:	Gasoline
Owner:	DAIO USA CORP CENTURY CENTER, SUITE 705 / 1750 KALAKAUA AVE Honolulu, HI 96815		

Facility ID:	9-101266	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	10000	Installed:	Not reported
Date Closed:	Not reported	Substance:	Gasoline
Owner:	DAIO USA CORP CENTURY CENTER, SUITE 705 / 1750 KALAKAUA AVE Honolulu, HI 96815		

I35 NNW 1/8-1/4 1242 ft.
Relative: Higher
Actual: 3 ft.

DAIO USA CORP — **RCRA-SQG 1000742334**, **FINDS HID984468306**
2002 KALAKAUA AVE
HONOLULU, HI 96815

Site 3 of 3 in cluster I

RCRAInfo:
Owner: DAIO USA CORP
(808) 949-1010
EPA ID: HID984468306
Contact: Not reported
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

---

36 SE 1/8-1/4 1263 ft.
Relative: Higher
Actual: 3 ft.

MACYS WEST WAIKIKI — **RCRA-SQG 1005415832**, **FINDS HIR000113464**
2314 KALAKAUA AVE
HONOLULU, HI 96815

RCRAInfo:
Owner: MACYS WEST
(808) 945-5913
EPA ID: HIR000113464
Contact: ERIC BRIENZO
(808) 945-5913
Classification: Conditionally Exempt Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

---

37 ESE 1/8-1/4 1268 ft.
Relative: Higher
Actual: 3 ft.

WAIKIKI TRADE CTR — **RCRA-SQG 1001213474**, **FINDS HIR000034447**
2255 KUHIO AVE
HONOLULU, HI 96815

RCRAInfo:
Owner: SUN SEIBU INC
(808) 848-8849
EPA ID: HIR000034447
Contact: DANIEL PEREZ NAVA
(808) 926-7722
Classification: Small Quantity Generator
TSDF Activities: Not reported

WAIKIKI TRADE CTR (Continued) — **1001213474**

Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

J38 SE 1/4-1/2 1430 ft.
Relative: Higher
Actual: 3 ft.

STAN SHINKAWA INC — **SHWS 1006819939**, **FINDS 110013778126**
2330 KALAKAUA AVE
HONOLULU, HI 96815

Site 1 of 2 in cluster J

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	HID980497325
Funding :	Not reported
Agreement/program :	Not reported
Activity Type :	ISST
Assignment Date :	1996-03-24 00:00:00
Activity Lead :	Unknown
Assignment End Date :	1996-03-25 00:00:00
End fill :	1996-03-25 00:00:00
Result fill :	NFA
Overall Status :	SDAR NFA
File Under :	Stan Shinkawa Inc
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	Stan Shinkawa Inc
Sitelist Name :	Stan Shinkawa Inc

J39 SE 1/4-1/2 1430 ft.
Relative: Higher
Actual: 3 ft.

STAN SHINKAWN INC — **CERC-NFRAP 1003879128**, **HID980497325**
2330 KALAKAUA AVE
HONOLULU, HI 96815

Site 2 of 2 in cluster J

CERCLIS-NFRAP Classification Data:
Federal Facility: Not a Federal Facility
Non NPL Code: NFRAP
NPL Status: Not on the NPL
CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	02/01/1980
Assessment:	PRELIMINARY ASSESSMENT	Completed:	09/01/1984
Assessment:	ARCHIVE SITE	Completed:	09/01/1984

40 NNW 1/4-1/2 1499 ft. — **JIMMY S CHEVRON SERVICE INC**, **1958 KALAKAUA AVE**, **HONOLULU, HI 96815** — **RCRA-SQG, FINDS, LUST, UST** — **1000303791, HID981661085**

Relative: Higher

Actual: 3 ft.

RCRAInfo:
Owner: CHEVRON INC USA
(415) 555-1212
EPA ID: HID981661085
Contact: ENVIRONMENTAL MANAGER
(808) 946-3905
Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

LUST:
Facility ID: 9-101106
Release ID: 970126
Facility Status Date: 1997-09-11 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Sadoyama

UST:
Facility ID: 9-101106 — Tank ID: R-003
Tank Status: Permanently Out of Use
Tank Capacity: 3000 — Installed: 7/19/1955
Date Closed: Not reported — Substance: Other
Owner: CHEVRON PRODUCTS COMPANY
91-480 MALAKOLE ST.
Honolulu, HI 96815

Facility ID: 9-101106 — Tank ID: R-002
Tank Status: Permanently Out of Use
Tank Capacity: 5000 — Installed: 7/19/1955
Date Closed: Not reported — Substance: Other
Owner: CHEVRON PRODUCTS COMPANY
91-480 MALAKOLE ST.
Honolulu, HI 96815

Facility ID: 9-101106 — Tank ID: R-004
Tank Status: Permanently Out of Use
Tank Capacity: 1000 — Installed: 7/19/1955
Date Closed: Not reported — Substance: Other
Owner: CHEVRON PRODUCTS COMPANY
91-480 MALAKOLE ST.
Honolulu, HI 96815

Facility ID: 9-101106 — Tank ID: R-001
Tank Status: Permanently Out of Use
Tank Capacity: 5000 — Installed: 7/19/1955
Date Closed: Not reported — Substance: Other
Owner: CHEVRON PRODUCTS COMPANY
91-480 MALAKOLE ST.

JIMMY S CHEVRON SERVICE INC (Continued) — **1000303791**
Honolulu, HI 96815

41 NNW 1/4-1/2 1880 ft. — **THE PAVILLION**, **1925 KALAKAUA AVE**, **HONOLULU, HI 96815** — **SHWS, SPILLS** — **S106820617, N/A**

Relative: Higher

Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Screening
Assignment Date : 1998-03-16 00:00:00
Activity Lead : Steve Mow
Assignment End Date : 2004-08-11 00:00:00
End fill : 2004-08-11 00:00:00
Result fill : Screening Referred to SHWB
Overall Status : SDAR NFA
File Under : The Pavilion
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : The Pavillion
Sitelist Name : The Pavillion

HI SPILLS:
Case Number: 19980120-1455
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1998-01-20 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: The Pavilion at Waikiki Contaminated Soil
Substances: Gasoline
Incident : Contaminated soil discovered upon trenching for a new shoring. Odor like gasoline was observed.
Initial : Will sample an backfill. Project will be redesigned to avoid contamination. For furthur information contact Frank Golding, Resident Manager at 947-3077 or pgr 287-4695.
Report : Referred to the UST Section.

42 SE 1/4-1/2 1892 ft. — **MOANA SURFRIDER HOTEL**, **2365 KALAKAUA AVE**, **HONOLULU, HI 96815** — **LUST, UST** — **U001236002, N/A**

Relative: Higher

Actual: 3 ft.

LUST:
Facility ID: 9-102647
Release ID: 930059
Facility Status Date: 1997-10-17 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Okoji

MOANA SURFRIDER HOTEL (Continued) **U001236002**

UST:

Facility ID:	9-102647	Tank ID:	R-1
Tank Status:	Permanently Out of Use		
Tank Capacity:	4000	Installed:	12/30/1970
Date Closed:	11/30/1992	Substance:	Diesel
Owner:	KYO-YA COMPANY, INC 2255 KALAKAUA AVE, 2ND FLOOR Honolulu, HI 96815		

Facility ID:	9-102647	Tank ID:	1
Tank Status:	Currently In Use		
Tank Capacity:	2500	Installed:	12/30/1992
Date Closed:	Not reported	Substance:	Diesel
Owner:	KYO-YA COMPANY, INC 2255 KALAKAUA AVE, 2ND FLOOR Honolulu, HI 96815		

---

43 NW 1/4-1/2 1929 ft. **HILTON HAWAIIAN VILLAGE** **FINDS 1006842938**
2005 KALIA RD **LUST 110014044355**
HONOLULU, HI 96815

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:

Facility ID:	9-100818
Release ID:	900106
Facility Status Date:	1991-11-11 00:00:00
Facility Status:	**Site Cleanup Completed**
Project Officer:	Goyke

---

44 NNE 1/4-1/2 2081 ft. **ALA WAI COVE CONDOMINIUM APARTMENTS** **SHWS 1006820430**
509 UNIVERSITY AVE **FINDS 110013783888**
HONOLULU, HI 96815 **SPILLS**

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	ERRF
Agreement/program :	State Site
Activity Type :	Unregulated UST
Assignment Date :	2004-11-24 00:00:00
Activity Lead :	Mark Sutterfield
Assignment End Date :	Not reported
End fill :	2005-08-24 00:00:00
Result fill :	Ongoing
Overall Status :	Ongoing
File Under :	Ala Wai Cove Condominium Apartments
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	Ala Wai Cove Condominium Apartments

ALA WAI COVE CONDOMINIUM APARTMENTS (Continued) **1006820430**

Sitelist Name :	Ala Wai Cove Condominium Apartments

HI SPILLS:

Case Number:	19920714
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Not reported
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	Ala Wai Cove Condominium Apartments
Substances:	Not reported
Incident :	SITE ASSESSMENT FOR THE REMOVAL OF AN UNDERGROUND STORAGE TANK AT THE ALA WAI COVE CONDOMINIUM APARTMENTS. PREPARED BY ENVIRONMENTAL TECHNOLOGIES INTERNATIONAL.
Initial :	SITE ASSESSMENT FOR THE REMOVAL OF AN UNDERGROUND STORAGE TANK AT THE ALA WAI COVE CONDOMINIUM APARTMENTS. PREPARED BY ENVIRONMENTAL TECHNOLOGIES INTERNATIONAL.
Report :	SITE ASSESSMENT FOR THE REMOVAL OF AN UNDERGROUND STORAGE TANK AT THE ALA WAI COVE CONDOMINIUM APARTMENTS. PREPARED BY ENVIRONMENTAL TECHNOLOGIES INTERNATIONAL.

---

45 East 1/4-1/2 2090 ft. **2319 ALA WAI BOULEVARD (UST REMOVAL & CONTAMINATED** **SHWS S105263376**
2319 ALA WAI BLVD **SPILLS N/A**
HONOLULU, HI 96815

Relative: Higher

Actual: 3 ft.

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	Not reported
Activity Type :	ISST
Assignment Date :	1996-03-01 00:00:00
Activity Lead :	Unknown
Assignment End Date :	1996-03-11 00:00:00
End fill :	1996-03-11 00:00:00
Result fill :	NFA
Overall Status :	SDAR NFA
File Under :	Starts International Hawaii, Inc.
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	2319 Ala Wai Blvd
Sitelist Name :	2319 Ala Wai Blvd

HI SPILLS:

Case Number:	19951219
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Terry Corpus
Assignment End Date :	Not reported

2319 ALA WAI BOULEVARD (UST REMOVAL & CONTAMINATED (Continued) **S105263376**

Result : 8
Supplemental Loc. Text: Not reported
Unit: Apartment Complex on Ala Wai Blvd. diesel UST removal
Substances: Diesel Fuel
Incident : Removal of an unregulated UST from below the sidewalk found no significant contamination.
Removed UST (exempted) 550 gallon size. Installed 1954, PID reading was zero no odor detected.
Initial : Soil sampling.
Removal of tank, tested soil and found TPH-d at 236 ppm.
Report : Follow up report pending ISST.
Removal of tank, tested soil and found TPH-d at 236 ppm.

Case Number: 19960226-0801
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1996-02-26 00:00:00
Activity Lead : Chris Takeno
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Ala Wai Boulevard Diesel Fuel Leak
Substances: Diesel Fuel
Incident : Removal of an unregulated UST from below the sidewalk found no significant contamination.
Removed UST (exempted) 550 gallon size. Installed 1954, PID reading was zero no odor detected.
Initial : Soil sampling.
Removal of tank, tested soil and found TPH-d at 236 ppm.
Report : Follow up report pending ISST.
Removal of tank, tested soil and found TPH-d at 236 ppm.

K46
ESE
1/4-1/2
2224 ft.

Relative: Higher

Actual: 3 ft.

KING'S VILLAGE SHOPPING CENTER **LUST** **U003711757**
131 KAIULANI AVE **UST** **N/A**
HONOLULU, HI 96819

Site 1 of 2 in cluster K

LUST:
Facility ID: 9-103611
Release ID: 000038
Facility Status Date: 1999-12-13 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Takaba

UST:
Facility ID: 9-103611 Tank ID: R-1
Tank Status: Permanently Out of Use
Tank Capacity: 6000 Installed: Not reported
Date Closed: 11/26/1999 Substance: Gasoline
Owner: KING'S VILLAGE SHOPPING CENTER
131 KAIULANI AVE
Honolulu, HI 96819

K47
ESE
1/4-1/2
2264 ft.

Relative: Higher

Actual: 3 ft.

AVIS RENT-A-CAR **FINDS** **1006843777**
148 KAIULANI AVE **LUST** **110014053530**
HONOLULU, HI 96815

Site 2 of 2 in cluster K

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-100173
Release ID: 920032
Facility Status Date: 1994-11-21 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Seid

48
ESE
1/4-1/2
2346 ft.

Relative: Higher

Actual: 3 ft.

ABC STORE #21 **FINDS** **1006842763**
2394 KUHIO AVE **LUST** **110014042393**
HONOLULU, HI 96813

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-100728
Release ID: 040029
Facility Status Date: 2004-02-06 00:00:00
Facility Status: Confirmed Release
Project Officer: Westerman

L49
WNW
1/4-1/2
2471 ft.

Relative: Higher

Actual: 3 ft.

DISCOVERY BAY **FINDS** **1006844195**
1778 ALA MOANA BLVD **LUST** **110014058349**
HONOLULU, HI 96815

Site 1 of 2 in cluster L

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK

LUST:
Facility ID: 9-101921
Release ID: 900018
Facility Status Date: 1995-08-31 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Assigned

L50
WNW
1/4-1/2
2479 ft.

Relative: Higher

Actual: 3 ft.

ILIKAI HOTEL **FINDS** **1000267863**
1777 ALA MOANA BLVD **LUST** **110005726385**
HONOLULU, HI 96815 **SPILLS**
UST
Site 2 of 2 in cluster L **HAZNET**

ILIKAI HOTEL (Continued) **1000267863**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII-UNDERGROUND STORAGE TANK
PERMIT COMPLIANCE SYSTEM
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

LUST:
Facility ID: 9-102181
Release ID: 900084
Facility Status Date: 1994-09-26 00:00:00
Facility Status: Site Cleanup Completed
Project Officer: Sadoyama

HI SPILLS:
Case Number: 19890314
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Ilikai Hotel, Ewa Entrance
Substances: Oil
Incident : OIL SPILL FROM ILIKAI HOTEL DRAINING INTO HARBOR.
Film canister found under bed contained unknown white substance.
Initial : SPILL CLEANED UP.
On scene to pickup unknown and transport to UH for identification. Testing indicate unknown is Sodium Carbonate.
Report : SPILL CLEANED UP.
On scene to pickup unknown and transport to UH for identification. Testing indicate unknown is Sodium Carbonate.

Case Number: 20020927-1325
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 2002-09-27 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: White substance in film canister under bed
Substances: Unknown
Incident : OIL SPILL FROM ILIKAI HOTEL DRAINING INTO HARBOR.
Film canister found under bed contained unknown white substance.
Initial : SPILL CLEANED UP.
On scene to pickup unknown and transport to UH for identification. Testing indicate unknown is Sodium Carbonate.
Report : SPILL CLEANED UP.
On scene to pickup unknown and transport to UH for identification. Testing indicate unknown is Sodium Carbonate.

ILIKAI HOTEL (Continued) **1000267863**

UST:
Facility ID: 9-102181 Tank ID: R-1
Tank Status: Permanently Out of Use
Tank Capacity: 10000 Installed: Not reported
Date Closed: 5/15/1990 Substance: Diesel
Owner: ILIKAI HOTEL
1777 ALA MOANA BLVD
Honolulu, HI 96815

HAZNET:
Gepaid: HID982402166
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 0.12
Facility Address 2: Not reported
Waste Category: Alkaline solution without metals (pH > 12.5)
Disposal Method: Transfer Station
Contact: KENNETH POYNTER
Telephone: (808) 949-3811
Mailing Name: Not reported
Mailing Address: 1777 ALA MOANA BLVD
HONOLULU, HI 96815
County 99

Gepaid: HID982402166
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 0.2
Facility Address 2: Not reported
Waste Category: Organic liquids (nonsolvents) with halogens
Disposal Method: Disposal, Other
Contact: KENNETH POYNTER
Telephone: (808) 949-3811
Mailing Name: Not reported
Mailing Address: 1777 ALA MOANA BLVD
HONOLULU, HI 96815
County 99

Gepaid: HID982402166
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 0.02
Facility Address 2: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Treatment, Tank
Contact: KENNETH POYNTER
Telephone: (808) 949-3811
Mailing Name: Not reported
Mailing Address: 1777 ALA MOANA BLVD
HONOLULU, HI 96815
County 99

ILIKAI HOTEL (Continued) **1000267863**

Gepaid: HID982402166
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 0.02
Facility Address 2: Not reported
Waste Category: Alkaline solution without metals (pH > 12.5)
Disposal Method: Treatment, Tank
Contact: KENNETH POYNTER
Telephone: (808) 949-3811
Mailing Name: Not reported
Mailing Address: 1777 ALA MOANA BLVD
HONOLULU, HI 96815
County 99

Gepaid: HID982402166
TSD EPA ID: CAD059494310
Gen County: 99
Tsd County: 99
Tons: 0.2
Facility Address 2: Not reported
Waste Category: 353
Disposal Method: Disposal, Other
Contact: KENNETH POYNTER
Telephone: (808) 949-3811
Mailing Name: Not reported
Mailing Address: 1777 ALA MOANA BLVD
HONOLULU, HI 96815
County 99

Click this hyperlink while viewing on your computer to access
1 additional CA HAZNET record(s) in the EDR Site Report.

---

51 NW 1/2-1 2730 ft. **HOBRON HOTEL** **SHWS** **S106817744**
1744 KAIOO DR **INST CONTROL** **N/A**
HONOLULU, HI 96815

Relative: Higher
Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : This site has restrictions on its use.
Fed Id : Not reported
Funding : ERRF
Agreement/program : State Site
Activity Type : Removal
Assignment Date : 2003-12-29 00:00:00
Activity Lead : Clarence Callahan
Assignment End Date : 2004-01-15 00:00:00
End fill : 2004-01-15 00:00:00
Result fill : No Further Action (NFA)-Cleanup Goals Achieved
Overall Status : SDAR NFA
File Under : Hobron Hotel, LLC
Restricted Use Comm : The Site is limited to commercial use. See the hardcopy file for a description of the restrictions in use.
Ic Relied On In Remedy : Not reported
Unit : Hobron Hotel
Sitelist Name : Hobron Hotel

HI INSTUTIONAL CONTROL:

HOBRON HOTEL (Continued) **S106817744**

Facility Addr 2: Not reported
File Under: Hobron Hotel, LLC
Restricted Use: This site has restrictions on its use.
Comments on Restricted Use: The Site is limited to commercial use. See the hardcopy file for a description of the restrictions in use.
IC Relied on in Remedy: Not reported

---

52 ESE 1/2-1 2738 ft. **WAIKIKI SAND VILLA II** **SHWS** **S106821022**
250 KAIULANI AVE **N/A**
HONOLULU, HI 96815

Relative: Higher
Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Remedial
Assignment Date : 2003-10-13 00:00:00
Activity Lead : Unassigned (low)
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : Waikiki Sand Villa II
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Waikiki Sand Villa II
Sitelist Name : Waikiki Sand Villa II

---

53 NE 1/2-1 2829 ft. **IOLANI SCHOOL PETROLEUM ODOR** **SHWS** **S106817948**
563 KAMOKU ST **SPILLS** **N/A**
HONOLULU, HI 96826

Relative: Higher
Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Screening
Assignment Date : 2004-05-20 00:00:00
Activity Lead : Melody Calisay
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : Iolani School
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Iolani School Petroleum
Sitelist Name : Iolani School Petroleum

HI SPILLS:
Case Number: 20000814-1440
Island: Oahu
Numerical Quantity: Not reported

IOLANI SCHOOL PETROLEUM ODOR (Continued) **S106817948**

Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 2000-08-14 00:00:00
Activity Lead : Liz Galvez
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Iolani School Petroleum odor
Substances: Not reported
Incident : Report of a petroleum odor while geotechnical borings were being conducted. Location: in front of driveway of maintenance residence (by swimming pool and track field).
Initial : SOSC requested 1) air monitoring - flammability potential; 2) sampling and analysis to determine what type of petroleum; 3) determine past usage of site. SOSC contacted The Gas Company who said that they had a pipeline (1 1/4") in the area - relaye
d info
Report : 08/16/00: Conducted a site visit; contamination is discovered as a result of conducting geotechnical borings on 8/11/00. Borings were being done prior to future construction improvements in the school. Groundwater in the area is approximately 4.
9 feet

---

54 NNW 1/2-1 2892 ft. **HAWAII CONVENTION CENTER** **SHWS 1006820847**
1801 KALAKAUA AVE **FINDS 110013788641**
HONOLULU, HI 96814 **SPILLS**

Relative: Lower

Actual: 1 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : Kalakaua Ave & Kapiolani Blvd
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Screening
Assignment Date : 2004-05-20 00:00:00
Activity Lead : Mike Miyasaka
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : State of Hawaii, Department of Business, Economic Development & Tourism, Convention Center Authority
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Hawaii Convention Center
Sitelist Name : Hawaii Convention Center

HI SPILLS:
Case Number: 19960314-0000
Island: Oahu
Numerical Quantity: 1
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response

HAWAII CONVENTION CENTER (Continued) **1006820847**

Assignment Date : 1996-03-14 00:00:00
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Kalakaua Ave & Kapiolani Blvd
Unit: Hawaii Convention Center
Substances: Lubricating Oil.
Incident : Lubricating oil leaked from a drum.
Dewatering activities causing oil sheen in Ala Wai Canal
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
A milky white liquid was observed emptying into the Ala Wai.
Initial : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
Observed substance in Ala Wai; milky white, caulky substance was on the ground and fresh stucko on wall. No residue on the Ala Wai sides from bridge to bridge.
Access to Convention Center closed.
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
Report : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
New Convention Center brick sealer not C & C. Spraying sealer over a month, subcontractor. Ala Wai Park promeded. 8 to 9 workers usualy roll it on.
Coast Guard lead.

Case Number: 19960207-1016
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1996-02-07 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Kalakaua Ave & Kapiolani Blvd
Unit: Convention Center
Substances: Oil
Incident : Lubricating oil leaked from a drum.
Dewatering activities causing oil sheen in Ala Wai Canal
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
A milky white liquid was observed emptying into the Ala Wai.
Initial : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
Observed substance in Ala Wai; milky white, caulky substance was on the ground and fresh stucko on wall. No residue on the Ala Wai sides from bridge to bridge.
Access to Convention Center closed.
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
Report : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
New Convention Center brick sealer not C & C. Spraying sealer over a month, subcontractor. Ala Wai Park promeded. 8 to 9 workers usualy roll it on.
Coast Guard lead.

Case Number: 19970301-1010

HAWAII CONVENTION CENTER (Continued) **1006820847**

Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1997-03-01 00:00:00
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Kalakaua Ave & Kapiolani Blvd
Unit: Convention Center White Liquid Emptying Into Ala Wai
Substances: UNKN white liquid
Incident : Lubricating oil leaked from a drum.
Dewatering activities causing oil sheen in Ala Wai Canal
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
A milky white liquid was observed emptying into the Ala Wai.
Initial : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
Observed substance in Ala Wai; milky white, caulky substance was on the ground and fresh stucko on wall. No residue on the Ala Wai sides from bridge to bridge.
Access to Convention Center closed.
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
Report : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
New Convention Center brick sealer not C & C. Spraying sealer over a month, subcontractor. Ala Wai Park promeded. 8 to 9 workers usualy roll it on.
Coast Guard lead.

Case Number: 19980426-1349
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1998-04-26 00:00:00
Activity Lead : Liz Galvez
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Kalakaua Ave & Kapiolani Blvd
Unit: Hawaii Convention Center Brick Sealer Odor
Substances: Not reported
Incident : Lubricating oil leaked from a drum.
Dewatering activities causing oil sheen in Ala Wai Canal
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
A milky white liquid was observed emptying into the Ala Wai.
Initial : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.
Observed substance in Ala Wai; milky white, caulky substance was on the ground and fresh stucko on wall. No residue on the Ala Wai sides from bridge to bridge.
Access to Convention Center closed.
Strong offensive fumes from C/C truck laying down some kind of brick sealer at the convention center.
Report : 1/6/97: rec'd UST4 Closure Report.
USCG notified. Dewatering activities stopped.

HAWAII CONVENTION CENTER (Continued) **1006820847**

New Convention Center brick sealer not C & C. Spraying sealer over a month, subcontractor. Ala Wai Park promeded. 8 to 9 workers usualy roll it on.
Coast Guard lead.

M55 **ROGER'S REPAIR INC** **SHWS** **S106820247**
NNW **1687 KALAKAUA AVE** **INST CONTROL** **N/A**
1/2-1 **HONOLULU, HI 96826**
3541 ft.

Site 1 of 2 in cluster M

Relative: Higher

Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : This site is available for unrestricted use.
Fed Id : Not reported
Funding : ERRF
Agreement/program : State Site
Activity Type : ISST
Assignment Date : 1999-05-28 00:00:00
Activity Lead : Laura Young
Assignment End Date : 1999-06-04 00:00:00
End fill : 1999-06-04 00:00:00
Result fill : No Further Action (NFA)
Overall Status : SDAR NFA
File Under : Roger's Repair Inc
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Roger's Repair Inc
Sitelist Name : Roger's Repair Inc

HI INSTUTIONAL CONTROL:
Facility Addr 2: Not reported
File Under: Roger's Repair Inc
Restricted Use: This site is available for unrestricted use.
Comments on Restricted Use: Not reported
IC Relied on in Remedy: Not reported

---

56 **OUTRIGGER PRINCE KUHIO HOTEL** **SHWS** **1006819048**
SE **2500 KUHIO AVE** **FINDS** **110013768146**
1/2-1 **HONOLULU, HI 96815** **LUST**
3549 ft. **SPILLS**

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM
HAWAII-UNDERGROUND STORAGE TANK

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : Not reported
Activity Type : Unregulated UST
Assignment Date : 2004-10-26 00:00:00
Activity Lead : John Peard
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing

OUTRIGGER PRINCE KUHIO HOTEL (Continued) **1006819048**

File Under : Outrigger Hotels & Resorts
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Prince Kuhio Hotel Report
Sitelist Name : Prince Kuhio Hotel Report

LUST:
Facility ID: 9-102154
Release ID: 880021
Facility Status Date: 1991-09-25 00:00:00
Facility Status: Case Transferred to HEER
Project Officer: HEER

HI SPILLS:
Case Number: 19910925
Island: Oahu
Numerical Quantity: 200
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Terry Corpus
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Outrigger Prince Kuhio
Substances: Diesel Fuel
Incident : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
Between 4:00 a.m. and 5:30 a.m., failure occurred of valve between day tank and main tank. Boiler is used for hot water heater. Day tanks are located on the 9th and 10th floors. The spill went down the side of building and into a sanitar
Initial : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
pump shut off. Muranaka Environmental hire to assess clean-up efforts
Report : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
pump shut off. Muranaka Environmental hire to assess clean-up efforts

Case Number: 19950307-2
Island: Oahu
Numerical Quantity: 50
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Chris Takeno
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Outrigger Prince Kuhio Hotel
Substances: Diesel Fuel
Incident : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
Between 4:00 a.m. and 5:30 a.m., failure occurred of valve between day tank and main tank. Boiler is used for hot water heater. Day tanks are located on the 9th and 10th floors. The spill went down the side of building and into a

OUTRIGGER PRINCE KUHIO HOTEL (Continued) **1006819048**

sanitar
Initial : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
pump shut off. Muranaka Environmental hire to assess clean-up efforts
Report : ABOUT 200 GALLONS OF DIESEL GAS SOILED WHEN UST HOME HEATING OIL TANK WAS OVER FILLED.
pump shut off. Muranaka Environmental hire to assess clean-up efforts

---

M57 **FORMER KALAKAUA TRANSMISSION INC** **SHWS** **S106817112**
NNW **1665 KALAKAUA AVE** **N/A**
1/2-1 **HONOLULU, HI 96826**
3640 ft.

Site 2 of 2 in cluster M

Relative: Higher
Actual: 3 ft.

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : State Site
Activity Type : Site Assessment
Assignment Date : 2004-12-14 00:00:00
Activity Lead : Diane England
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : Imai Brothers Enterprises
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Former Kalakaua Transmission Inc
Sitelist Name : Former Kalakaua Transmission Inc

---

58 **ALOHA MOTORS** **SHWS** **1006820308**
NNW **1777 KAPIOLANI BLVD** **FINDS** **110013782479**
1/2-1 **HONOLULU, HI 96813** **SPILLS**
3696 ft.

Relative: Higher
Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : HID984466060
Funding : Not reported
Agreement/program : Not reported
Activity Type : ISST
Assignment Date : 1994-05-27 00:00:00
Activity Lead : Unknown
Assignment End Date : 1995-01-19 00:00:00
End fill : 1995-01-19 00:00:00
Result fill : NFA
Overall Status : SDAR NFA
File Under : Aloha Motors
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Aloha Motors

ALOHA MOTORS (Continued) **1006820308**

Sitelist Name : Aloha Motors

HI SPILLS:

Case Number: 19920128
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Aloha Motors - Kapiolani & Kalakaua Avenues
Substances: Petroleum Hyrocarbons Spent solvents & thinners
Incident : rainwater run off from property. have petroleum hydrocarbon - oily sheen in Ala Wai/alleged illegal disposal of thinners & solvents. Record of Communication (3/9/92)
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
WATER IS BEING DISCHARGED ONTO SIDEWALK AND STREET ALONG KALAKAUA, DIAMOND HEAD OF KAPIOLANI. INTERVIEWED MRS. WINTERS WHO WILL CONTACT FIRST DEVELOPMENT.
Initial : None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN
Report : None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN

Case Number: 19900411-1
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Sheila Mackenzie
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Aloha Motors, First Development Inc.
Substances: Not reported
Incident : rainwater run off from property. have petroleum hydrocarbon - oily sheen in Ala Wai/alleged illegal disposal of thinners & solvents. Record of Communication (3/9/92)
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
WATER IS BEING DISCHARGED ONTO SIDEWALK AND STREET ALONG KALAKAUA, DIAMOND HEAD OF KAPIOLANI. INTERVIEWED MRS. WINTERS WHO WILL CONTACT FIRST DEVELOPMENT.
Initial : None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM

ALOHA MOTORS (Continued) **1006820308**

Report : THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN
None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN

Case Number: 19900821-5
Island: Oahu
Numerical Quantity: 15
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: ALOHA MOTORS, KALAKAUA AVE.
Substances: Unknown
Incident : rainwater run off from property. have petroleum hydrocarbon - oily sheen in Ala Wai/alleged illegal disposal of thinners & solvents. Record of Communication (3/9/92)
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
WATER IS BEING DISCHARGED ONTO SIDEWALK AND STREET ALONG KALAKAUA, DIAMOND HEAD OF KAPIOLANI. INTERVIEWED MRS. WINTERS WHO WILL CONTACT FIRST DEVELOPMENT.
Initial : None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN
Report : None Noted in Report
FOLLOW UP LETTER TO FIRST DEVELOPMENT INC., REGARDING SITE ASSESSMENTS PERFORMED AT THE PROPERTY. See also 920309.
C. WINTERS CONTACTED THE DEVELOPMENT AND CONTRACTOR COMPANIES AND INFORMED THEM THAT THE DRILL WATER NEEDS TO BE CONTAINED AS PER AGREEMENT IN DEVELOPMENT PLAN

---

59 **YACHT HARBOR TOWERS** **SHWS** **S106821166**
NW **1600 ALA MOANA BLVD** **SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96815**
3756 ft.

Relative:
Lower

Actual:
2 ft.

SHWS:
Supplement : Yacht Harbor Towers
Restricted Use : Not reported
Fed Id : Not reported
Funding : ERRF
Agreement/program : State Site
Activity Type : Remedial
Assignment Date : 2003-10-13 00:00:00
Activity Lead : Steve Mow
Assignment End Date : 2005-05-02 00:00:00
End fill : 2005-05-02 00:00:00
Result fill : No Further Action (NFA)-Cleanup Goals Achieved (Removal)
Overall Status : SDAR NFA
File Under : Yacht Harbor Towers
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported

YACHT HARBOR TOWERS (Continued) **S106821166**

Unit : Yacht Harbor Towers Generator
Sitelist Name : Yacht Harbor Towers Generator

HI SPILLS:
Case Number: 19990301-1550
Island: Oahu
Numerical Quantity: 60
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : 1999-03-01 00:00:00
Activity Lead : Mike Cripps
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Yacht Harbor Towers
Unit: Yacht Harbor Tower Generator
Substances: Unknown
Incident : Above ground generator and diesel tank, Sept 30, 1998. Release thru generator. Pacific Machinery installed generator.
Initial : Original removal left contamination. Generator on slab, operator trying not to disturb generator mounting. But contamination of 11,000 ppm TPH diesel remains. Masa Fujoika to determine extent of contamination.
Report : Copy sent to remediation.

---

60 SE 1/2-1 4210 ft. **ABC STORE UNDERGROUND STORAGE TANK REMOVAL** **SHWS FINDS SPILLS** **1006820346 110013782923**
2546 LEMON RD
HONOLULU, HI 96815

Relative: Higher

Actual: 3 ft.

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : Paka Moana Apartments
Restricted Use : Not reported
Fed Id : Not reported
Funding : ERRF
Agreement/program : State Site
Activity Type : Unregulated UST
Assignment Date : 2004-11-24 00:00:00
Activity Lead : Mark Sutterfield
Assignment End Date : 2005-03-14 00:00:00
End fill : 2005-03-14 00:00:00
Result fill : No Further Action (NFA)-Cleanup Goals Achieved (Removal)
Overall Status : SDAR NFA
File Under : ABC Stores
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : ABC Store Underground Storage Tank Removal
Sitelist Name : ABC Store Underground Storage Tank Removal

HI SPILLS:
Case Number: 19981023-1015
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1998-10-23 00:00:00

ABC STORE UNDERGROUND STORAGE TANK REMOVAL (Continued) **1006820346**

Activity Lead : Liz Galvez
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Paka Moana Apartments
Unit: ABC Store Underground Storage Tank Removal
Substances: Not reported
Incident : Soil contamination discovered upon a 750 gallon Underground Storage Tank (UST) removal
Initial : Excavated soil and stockpiled on site; samples are being taken to determine extent of contamination
Report : Upon receipt of written notification, site to be referred to the HEER ISST.

---

61 North 1/2-1 4754 ft. **CONTINENTAL AUTO SERVICES** **SHWS SPILLS** **S104534121 N/A**
1918 ALGAROBA ST
HONOLULU, HI 96826

Relative: Higher

Actual: 7 ft.

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : Not reported
Activity Type : ISST
Assignment Date : 1999-09-30 00:00:00
Activity Lead : Charley Langer
Assignment End Date : 1999-10-08 00:00:00
End fill : 1999-10-08 00:00:00
Result fill : NFA
Overall Status : SDAR NFA
File Under : Continental Auto Services
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : Continental Auto Services
Sitelist Name : Continental Auto Services

HI SPILLS:
Case Number: 19990119-1030
Island: Oahu
Numerical Quantity: Not reported
Less Or Greater Than : Not reported
Units : Not reported
Activity Type : Response
Assignment Date : 1999-01-19 00:00:00
Activity Lead : Liz Galvez
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: Continental Auto Service
Substances: Hydraulic Fluid
Incident : Free product of Hydraulic fluid discovered on soil and groundwater (which is 8 ft below ground surface) upon removal of a hoist on 1/15/99.
Initial : None - only initial notification taken.
Report : Dawson Env. (contractors to the PRP) excavated 4 cubic yards of soil to date. Awaiting lab results. Referral to ISST upon receipt of written follow-up. 7/20/99: HEERO receive Ph III Soil Removal Action Report.

N62
NNE
1/2-1
4759 ft.

Relative: Higher

Actual: 10 ft.

MCDONALD'S RESTAURANT SOIL & GROUNDWATER CONTAMINA — **SHWS** — **S105264711**
2121 S KING ST — **SPILLS** — **N/A**
HONOLULU, HI 96826

Site 1 of 2 in cluster N

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	State Site
Activity Type :	Screening
Assignment Date :	2004-05-20 00:00:00
Activity Lead :	Richard Palmer
Assignment End Date :	Not reported
End fill :	2005-08-24 00:00:00
Result fill :	Ongoing
Overall Status :	Ongoing
File Under :	McDonald's Restaurants
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	McDonald's Restaurant Soil & Groundwater Contamination
Sitelist Name :	McDonald's Restaurant Soil & Groundwater Contamination

HI SPILLS:

Case Number:	19941013
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Not reported
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	McDonalds
Substances:	Gasoline

Incident : C & C work crew noticed gasoline odor while excavating dead tree. Service stations are located across King street and next to McDonalds. Sheen on water noticed by the crew on 10/13/94. There was a tree dead within a week at the location
On April 9, 1999, two borings were drilled for geotechnical analysis of subsurface soils, in conjunction w/a planned construction project. Soil and groundwater contaminated w/free petroleum product were encountered in the borings.

Initial : referred to UST section of Solid and Hazardous Waste Branch
The borings were backfilled with the soil and drill cuttings removed during the drilling.

Report : referred to UST section of Solid and Hazardous Waste Branch
The borings were backfilled with the soil and drill cuttings removed during the drilling.

Case Number:	19990429-1156
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response

MCDONALD'S RESTAURANT SOIL & GROUNDWATER CONTAMINA (Continued) — **S105264711**

Assignment Date :	1999-04-29 00:00:00
Activity Lead :	Liz Galvez
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	McDonald's Restaurant Soil & Groundwater Contamination
Substances:	Petroleum

Incident : C & C work crew noticed gasoline odor while excavating dead tree. Service stations are located across King street and next to McDonalds. Sheen on water noticed by the crew on 10/13/94. There was a tree dead within a week at the location
On April 9, 1999, two borings were drilled for geotechnical analysis of subsurface soils, in conjunction w/a planned construction project. Soil and groundwater contaminated w/free petroleum product were encountered in the borings.

Initial : referred to UST section of Solid and Hazardous Waste Branch
The borings were backfilled with the soil and drill cuttings removed during the drilling.

Report : referred to UST section of Solid and Hazardous Waste Branch
The borings were backfilled with the soil and drill cuttings removed during the drilling.

N63
NNE
1/2-1
4776 ft.

Relative: Higher

Actual: 10 ft.

ARCO AM/PM #82111 (TEXACO 61-100-0045) — **SHWS** — **S106816263**
2105 S KING ST — **N/A**
HONOLULU, HI 96826

Site 2 of 2 in cluster N

SHWS:

Supplement :	Not reported
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	Not reported
Activity Type :	Unregulated UST
Assignment Date :	2004-10-26 00:00:00
Activity Lead :	John Peard
Assignment End Date :	Not reported
End fill :	2005-08-24 00:00:00
Result fill :	Ongoing
Overall Status :	Ongoing
File Under :	ARCO AM/PM
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	Former ARCO AM/PM #82111
Sitelist Name :	Former ARCO AM/PM #82111

64
North
1/2-1
4836 ft.

Relative: Higher

Actual: 10 ft.

WILIWILI AND KING STREETS EXCAVATION — **SHWS** — **1006819666**
KING ST & WILIWILI ST — **FINDS** — **110013775110**
HONOLULU, HI 96826 — **SPILLS**

WILIWILI AND KING STREETS EXCAVATION (Continued) **1006819666**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:

Supplement :	nr 2105 S King (former Texaco stn), TMK 127007012
Restricted Use :	Not reported
Fed Id :	Not reported
Funding :	Not reported
Agreement/program :	State Site
Activity Type :	Ranking
Assignment Date :	2004-05-20 00:00:00
Activity Lead :	Eric Sadoyama
Assignment End Date :	2005-08-17 00:00:00
End fill :	2005-08-17 00:00:00
Result fill :	Refer to SHWB
Overall Status :	SDAR NFA
File Under :	Verizon Hawaii
Restricted Use Comm :	Not reported
Ic Relied On In Remedy :	Not reported
Unit :	Wiliwili and King Streets Excavation
Sitelist Name :	Wiliwili and King Streets Excavation

HI SPILLS:

Case Number:	19940503-1
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Chris Takeno
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	nr 2105 S King (former Texaco stn), TMK 127007012
Unit:	Wiliwili St & King St, install manhole & conduits
Substances:	Oil/ petroleum
Incident :	Install manhole and conduits for Hawaiian Telephone. (10 x 8 trench) Texaco gas station at the location. Excavated pit, smell of petroleum was strong, stop operations and hired Masa Fujioka and Associates- confirmed petroleum presence. Gas station is next to excavation pit.
Initial :	Pending On going
Report :	Pending On going

Case Number:	19940512-3
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	Not reported
Activity Lead :	Not reported
Assignment End Date :	Not reported
Result :	8
Supplemental Loc. Text:	nr 2105 S King (former Texaco stn), TMK 127007012

WILIWILI AND KING STREETS EXCAVATION (Continued) **1006819666**

Unit:	Wiliwili St & King St, excavation
Substances:	Petroleum
Incident :	Install manhole and conduits for Hawaiian Telephone. (10 x 8 trench) Texaco gas station at the location. Excavated pit, smell of petroleum was strong, stop operations and hired Masa Fujioka and Associates- confirmed petroleum presence. Gas station is next to excavation pit.
Initial :	Pending On going
Report :	Pending On going

---

65 **2700 SOUTH KING STREET** **SHWS** **S106815419**
NE **2700 S KING ST** **SPILLS** **N/A**
1/2-1 **HONOLULU, HI 96826** **INST CONTROL**
5039 ft.

Relative: Higher

Actual: 10 ft.

SHWS:

Supplement :	Not reported
Restricted Use :	This site has restrictions on its use.
Fed Id :	Not reported
Funding :	ERRF
Agreement/program :	State Site
Activity Type :	Screening
Assignment Date :	2003-11-26 00:00:00
Activity Lead :	Clarence Callahan
Assignment End Date :	2004-01-30 00:00:00
End fill :	2004-01-30 00:00:00
Result fill :	No Further Action (NFA)-Unrestricted Use (Zoned Industrial)
Overall Status :	SDAR NFA
File Under :	AMM Family Patners, C/o Mr. Roy Sekiguchi
Restricted Use Comm :	The Site is limited to commercial use. The parking lot cover (asphalt) must remain in place, otherwise the ash layer with lead contamination at 15" bgs must be removed.
Ic Relied On In Remedy :	Not reported
Unit :	2700 South King Street
Sitelist Name :	2700 South King Street

HI INSTUTIONAL CONTROL:

Facility Addr 2:	Not reported
File Under:	AMM Family Patners, C/o Mr. Roy Sekiguchi
Restricted Use:	This site has restrictions on its use.
Comments on Restricted Use:	The Site is limited to commercial use. The parking lot cover (asphalt) must remain in place, otherwise the ash layer with lead contamination at 15" bgs must be removed.
IC Relied on in Remedy:	Not reported

HI SPILLS:

Case Number:	20031126-0717
Island:	Oahu
Numerical Quantity:	Not reported
Less Or Greater Than :	Not reported
Units :	Not reported
Activity Type :	Response
Assignment Date :	2003-11-26 00:00:00
Activity Lead :	Liz Galvez
Assignment End Date :	2003-12-02 00:00:00
Result :	8
Supplemental Loc. Text:	Not reported
Unit:	Lead Above DOH Tier 1 Action Levels

2700 SOUTH KING STREET (Continued) **S106815419**

Substances: Lead
Incident : Lead above DOH Tier 1 action levels in 2 boreholes at concentrations of 432 and 5400 mg/kg. No lead detected in groundwater samples. Quantity released unknown.
Initial : NFA for Emergency Response - send to ISST.
Report : NFA for Emergency Response - send to ISST.

---

66 NW 1/2-1 5232 ft.
Relative: Higher
Actual: 3 ft.

1551 KAPIOLANI BOULEVARD **SHWS** **1006820394**
1551 KAPIOLANI BLVD **FINDS** **110013783469**
HONOLULU, HI 96814 **SPILLS**

FINDS:
Other Pertinent Environmental Activity Identified at Site:
HAWAII ENGINE CONTROL SYSTEM

SHWS:
Supplement : Not reported
Restricted Use : Not reported
Fed Id : Not reported
Funding : Not reported
Agreement/program : Not reported
Activity Type : Unregulated UST
Assignment Date : 2004-10-26 00:00:00
Activity Lead : John Peard
Assignment End Date : Not reported
End fill : 2005-08-24 00:00:00
Result fill : Ongoing
Overall Status : Ongoing
File Under : CEC Hawaii, Inc.
Restricted Use Comm : Not reported
Ic Relied On In Remedy : Not reported
Unit : New Office Lounge
Sitelist Name : New Office Lounge

HI SPILLS:
Case Number: 19920405-2
Island: Oahu
Numerical Quantity: 20
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: 1551 Kapiolani Blvd, line blockage of grease
Substances: Sewage Spill
Incident : Line Blockage (Grease) causing 20+ Gallons sewage spillover
sewage spill
20 gallons, 5 gallons into the storm drain, of sewage spilled.
Initial : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Cleaned, disinfected and deodorized.
Report : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Honolulu City and County After Hours Sewage Maint. "Cleaned and Disinfected" the affected area.

1551 KAPIOLANI BOULEVARD (Continued) **1006820394**

Case Number: 19940905-2
Island: Oahu
Numerical Quantity: 20
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : Not reported
Activity Lead : Not reported
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: 1551 Kapiolani Blvd, sewage spill
Substances: sewage
Incident : Line Blockage (Grease) causing 20+ Gallons sewage spillover
sewage spill
20 gallons, 5 gallons into the storm drain, of sewage spilled.
Initial : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Cleaned, disinfected and deodorized.
Report : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Honolulu City and County After Hours Sewage Maint. "Cleaned and Disinfected" the affected area.

Case Number: 19970622-0950
Island: Oahu
Numerical Quantity: 20
Less Or Greater Than : Not reported
Units : Gallons
Activity Type : Response
Assignment Date : 1997-08-13 00:00:00
Activity Lead : Bill Perry
Assignment End Date : Not reported
Result : 8
Supplemental Loc. Text: Not reported
Unit: 1551 Kapiolani Blvd, 5 gallons into storm drain
Substances: Sewage
Incident : Line Blockage (Grease) causing 20+ Gallons sewage spillover
sewage spill
20 gallons, 5 gallons into the storm drain, of sewage spilled.
Initial : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Cleaned, disinfected and deodorized.
Report : Line was cleared by C & C Sewage Maintenance Crew. Approximately 20 Gals of sewage was recovered. Case Closed to File.
removed blockage, cleaned, disinfected, deodorized
Honolulu City and County After Hours Sewage Maint. "Cleaned and Disinfected" the affected area.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 6
Telephone: 214-655-6659

EPA Region 8
Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/19/2006
Date Data Arrived at EDR: 05/05/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 17

Source: EPA
Telephone: N/A
Last EDR Contact: 05/05/2006
Next Scheduled EDR Contact: 07/31/2006
Data Release Frequency: Quarterly

NPL RECOVERY: Federal Superfund Liens
Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 05/23/2006
Next Scheduled EDR Contact: 08/21/2006
Data Release Frequency: No Update Planned

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HONOLULU	1006820749	KAKAAKO BROWNFIELD PROJECT-UNIT 7	AHUI ST	96814	SHWS, FINDS, BROWNFIELDS, INST CONTROL
HONOLULU	1006820762	KAKAAKO BROWNFIELD PROJECT-UNIT 5	AHUI ST	96814	SHWS, FINDS
HONOLULU	9962909 0	ALA WAI STATE BOAT HARBOR WAIKIKI	ALA WAI STATE BOAT HARBOR WAIKIKI		ERNS
HONOLULU	S106821024	WAIKIKI YACHT BASIN, OIL SHEEN	ALA MOANA BLVD	96815	SPILLS
HONOLULU	1006820232	FORT RUGER	DIAMOND HEAD RD	96816	SHWS, FINDS, SPILLS
HONOLULU	S106817122	FORT RUGER FORMER FIRING RANGES	DIAMOND HEAD RD	96816	SHWS
HONOLULU	S106708609	CANNON CLUB	DIAMOND HEAD RD		SHWS, BROWNFIELDS, INST CONT
HONOLULU	9123984 5	EWA AND WAIKIKI BEACHES NEAR JETTY BETWEEN DERUSSY BEECH IN	EWA AND WAIKIKI BEACHES NEAR JETTY BETWEEN DERUSSY BEECH IN		ERNS
HONOLULU	S106817262	HALAWA STREAM CHANNEL PETROLEUM CONTAMINATION	H-3		SHWS
HONOLULU	1009269210	HAWAIIAN PRINCE HOTEL WAIKIKI	100 HOLOMOANA ST	96815	ICIS
HONOLULU	1006820766	KAKAAKO BROWNFIELD PROJECT-UNIT 10	KAKAAKO DISTRICT	96814	SHWS, FINDS, BROWNFIELDS
HONOLULU	S107024027	KALAKAUA AVENUE & RYCROFT ST, WAIKIKI AREA	KALAKAUA AVE / RYCROFT ST	96815	SPILLS
HONOLULU	S106820272	S/V KULU MANU, WAIKIKI BEACH	KALAKAUA AVE	96815	SPILLS
HONOLULU	1008192308	WAIKIKI BEACHCOMBER HOTEL	2300 KALAKAWA	96815	FTTS
HONOLULU	1004649 17	WAIKIKI BEACHCOMBER HOTEL	2300 KALAKAWA	96815	RCRA-SQG, FINDS
HONOLULU	1000823325	USARMY FORT DERUSSY MILITARY RESERVE	KALIA ROAD	96815	RCRA-SQG, FINDS
HONOLULU	S106818064	KAKAAKO IMPROVEMENT DISTRICT 7	KAMAKEE ST		SHWS, BROWNFIELDS
HONOLULU	S106818337	KEEAUMOKU SUPERBLOCK PROJECT	KEEAUMOKU ST		SHWS, SPILLS, INST CONTROL
HONOLULU	1006820763	KAKAAKO BROWNFIELD PROJECT-UNIT 4	KOULA ST	96814	SHWS, FINDS
HONOLULU	1006820765	KAKAAKO BROWNFIELD PROJECT-UNIT 2	KOULA ST	96814	SHWS, FINDS
HONOLULU	1006820767	KAKAAKO BROWNFIELD PROJECT-UNIT 1	KOULA ST	96814	SHWS, FINDS
HONOLULU	1006819930	STAN SHERIFF SPECIAL EVENTS ARENA	LOWER CAMPUS RD	96822	SHWS, FINDS, SPILLS
HONOLULU	1008192309	WAIKIKI MARINA HOTEL	1956 AL MOANA BLVD	96815	FTTS
HONOLULU	1008169453	WAIKIKI WATER SYSTEM	ROYAL HAWAIIAN AVE	96815	FINDS
HONOLULU	S106817349	HAWAII HALL	VARNEY CIR	96822	SHWS
HONOLULU	9961720	WAIKIKI YATCH BASIN ILIKAI HOTEL ALAMOANA BLVD	WAIKIKI YATCH BASIN ILIKAI HOTEL ALAMOANA BLVD		ERNS
HONOLULU	9960941 6	WAIKIKI YACHT CLUB	WAIKIKI YACHT CLUB		ERNS
HONOLULU	S103763651	KMCAS LANDFILL	KANEOHE BAY		SWF/LF
HONOLULU	S103876395	HAWAIIAN BITUMULS PAVING & PRECAST COMPANY, MOKULE	FARRINGTON HWY	96826	SHWS
HONOLULU	1003879503	HAWAII BITUMULS & PAVING CO.	TMK: (3) 6-7-004:035	96826	CERC-NFRAP
HONOLULU	1008919559	ROSENBLUM RESIDENCE AT WAIKIKI RANCH	TMK: (3) 6-1-: 2, 33 & 36/FARRINGTON HWY.	96815	FINDS

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 03/21/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 23

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 03/21/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 23

Source: EPA
Telephone: 703-413-0223
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/2006
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 04/13/2006
Number of Days to Update: 27

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/21/2006
Date Data Arrived at EDR: 03/01/2006
Date Made Active in Reports: 03/31/2006
Number of Days to Update: 30

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/27/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 01/12/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 40

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342
Last EDR Contact: 04/26/2006
Next Scheduled EDR Contact: 07/24/2006
Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 01/16/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 36

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/14/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/21/2006
Date Data Arrived at EDR: 03/27/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/21/2006
Date Data Arrived at EDR: 03/27/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 703-603-8905
Last EDR Contact: 03/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 05/12/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 01/19/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 33

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 11/29/2005
Date Data Arrived at EDR: 12/05/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 56

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/2004
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 04/25/2005
Number of Days to Update: 69

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/13/2006
Next Scheduled EDR Contact: 07/24/2006
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/07/2005
Date Data Arrived at EDR: 01/06/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 46

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/05/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 11/04/2005
Date Data Arrived at EDR: 11/28/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 63

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 07/13/2005
Date Made Active in Reports: 08/17/2005
Number of Days to Update: 35

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/21/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/27/2004
Date Made Active in Reports: 05/21/2004
Number of Days to Update: 24

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 04/12/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/17/2006
Date Data Arrived at EDR: 01/24/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 34

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 01/17/2006
Date Data Arrived at EDR: 01/24/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 34

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 05/11/2006
Date Made Active in Reports: 05/22/2006
Number of Days to Update: 11

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/13/2006
Date Data Arrived at EDR: 04/21/2006
Date Made Active in Reports: 05/11/2006
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/11/2006
Next Scheduled EDR Contact: 07/17/2006
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/27/2005
Date Data Arrived at EDR: 02/08/2006
Date Made Active in Reports: 02/27/2006
Number of Days to Update: 19

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 05/08/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 02/10/2006
Date Data Arrived at EDR: 02/16/2006
Date Made Active in Reports: 03/31/2006
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Quarterly

MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/08/2005
Date Data Arrived at EDR: 12/27/2005
Date Made Active in Reports: 01/30/2006
Number of Days to Update: 34

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/29/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Semi-Annually

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/09/2006
Date Data Arrived at EDR: 01/16/2006
Date Made Active in Reports: 02/21/2006
Number of Days to Update: 36

Source: EPA
Telephone: N/A
Last EDR Contact: 04/03/2006
Next Scheduled EDR Contact: 07/03/2006
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 03/06/2006
Next Scheduled EDR Contact: 06/05/2006
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2003
Date Data Arrived at EDR: 06/17/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 48

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 03/17/2006
Next Scheduled EDR Contact: 06/12/2006
Data Release Frequency: Biennially

STATE AND LOCAL RECORDS

SHWS: Sites List
Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 08/24/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/28/2005
Number of Days to Update: 30

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 03/24/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Semi-Annually

SWF/LF: Permitted Landfills in the State of Hawaii
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/19/2004
Date Data Arrived at EDR: 05/20/2004
Date Made Active in Reports: 06/22/2004
Number of Days to Update: 33

Source: Department of Health
Telephone: 808-586-4245
Last EDR Contact: 05/12/2006
Next Scheduled EDR Contact: 07/24/2006
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 02/20/2006
Date Made Active in Reports: 03/20/2006
Number of Days to Update: 28

Source: Department of Health
Telephone: 808-586-4228
Last EDR Contact: 03/30/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Semi-Annually

UST: Underground Storage Tank Database
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/01/2006
Date Data Arrived at EDR: 02/20/2006
Date Made Active in Reports: 03/24/2006
Number of Days to Update: 32

Source: Department of Health
Telephone: 808-586-4228
Last EDR Contact: 03/20/2006
Next Scheduled EDR Contact: 06/26/2006
Data Release Frequency: Semi-Annually

SPILLS: Release Notifications
Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 08/24/2005
Date Data Arrived at EDR: 08/29/2005
Date Made Active in Reports: 09/28/2005
Number of Days to Update: 30

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 03/24/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

INST CONTROL: Sites with Institutional Controls
Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 08/24/2005
Date Data Arrived at EDR: 10/12/2005
Date Made Active in Reports: 10/26/2005
Number of Days to Update: 14

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 03/24/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

VCP: Voluntary Response Program Sites

Date of Government Version: 08/24/2005
Date Data Arrived at EDR: 10/31/2005
Date Made Active in Reports: 12/14/2005
Number of Days to Update: 44

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 03/24/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

BROWNFIELDS: Brownfields Sites

Date of Government Version: 08/24/2005
Date Data Arrived at EDR: 10/12/2005
Date Made Active in Reports: 10/26/2005
Number of Days to Update: 14

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 03/24/2006
Next Scheduled EDR Contact: 06/19/2006
Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/08/2005
Date Made Active in Reports: 08/04/2005
Number of Days to Update: 177

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 05/12/2006
Next Scheduled EDR Contact: 08/07/2006
Data Release Frequency: Semi-Annually

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

© 2006 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WAIKIKI BEACHWALK PROPERTY
270-286 BEACHWALK STREET
HONOLULU, HI 96815

TARGET PROPERTY COORDINATES

Latitude (North):	21.28110 - 21˚ 16' 52.0"
Longitude (West):	157.831 - 157˚ 49' 51.6"
Universal Tranverse Mercator:	Zone 4
UTM X (Meters):	621272.0
UTM Y (Meters):	2353568.8
Elevation:	3 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	21157-C7 HONOLULU, HI
Most Recent Revision:	Not reported

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

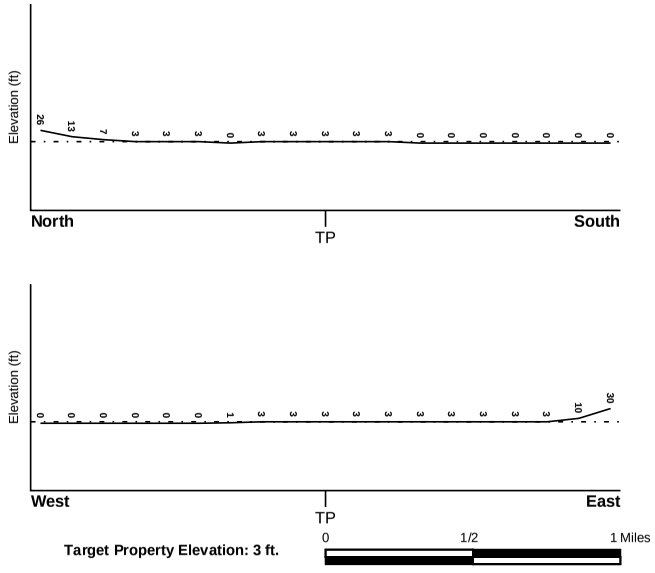
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 3 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
HONOLULU, HI	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 1500010120C

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HONOLULU	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

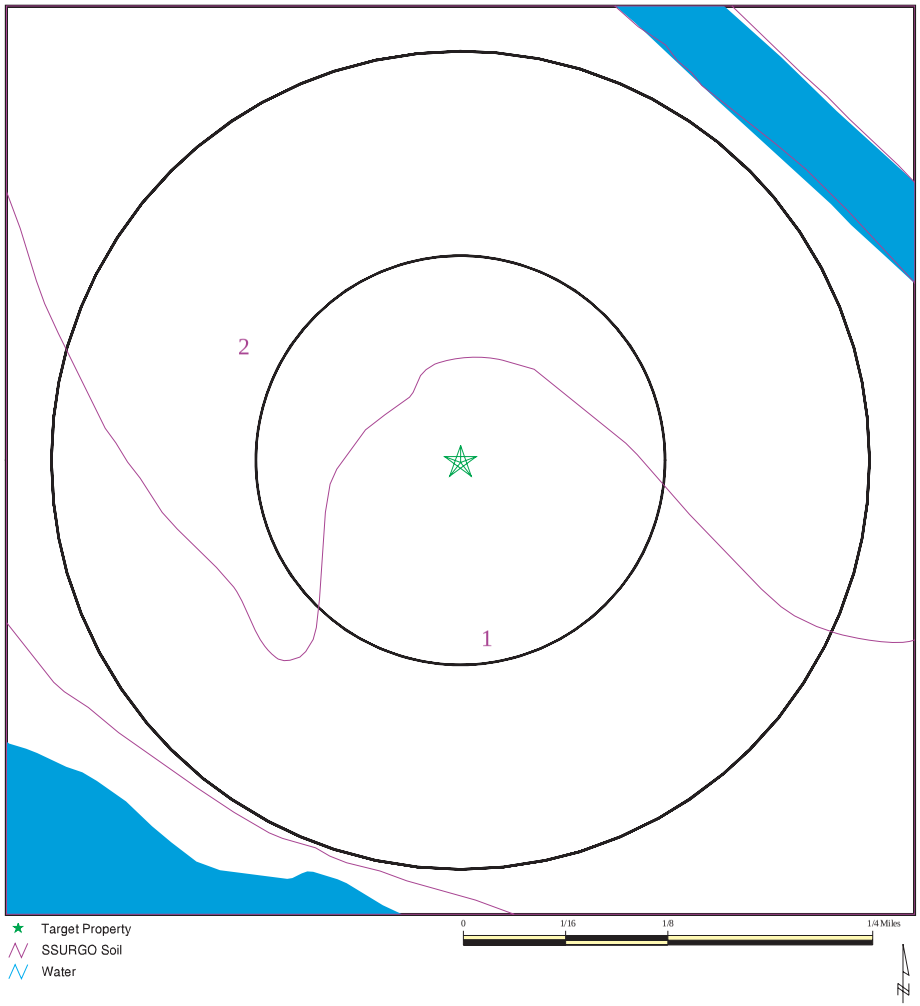
Era: -
System: -
Series: -
Code: N/A *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: -

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Amdt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 1685160.6s



SITE NAME: Waikiki Beachwalk Property ADDRESS: 270-286 Beachwalk Street Honolulu HI 96815 LAT/LONG: 21.2811 / 157.8310	CLIENT: LFR Inc CONTACT: Jon Mollison INQUIRY #: 1685160.6s DATE: May 26, 2006

Copyright © 2006 EDR, Inc. © 2006 Tele Atlas Rel. 07/2005.

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: JAUCAS

Soil Surface Texture: sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively. Soils have very high and high hydraulic conductivity and low water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 0 inches

Depth to Bedrock Max: > 0 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	13 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 7.30 Min: 6.60
2	13 inches	60 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 8.40 Min: 6.60

Soil Map ID: 2

Soil Component Name: FILL LAND, MIXED

Soil Surface Texture: variable

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 40 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.10	Max: 7.30 Min: 6.10
2	6 inches	60 inches	stratified	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.10	Max: 7.30 Min: 6.10
3	60 inches	70 inches	unweathered bedrock	Not reported	Not reported	Max: 2.00 Min: 0.00	Max: 0.00 Min: 0.00

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
33	HI0000331	1/2 - 1 Mile SSE

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	3-1750-006	1/4 - 1/2 Mile WNW
2	3-1649-012	1/4 - 1/2 Mile SE
3	3-1750-004	1/4 - 1/2 Mile West
A4	3-1750-008	1/4 - 1/2 Mile WNW
A5	3-1750-007	1/4 - 1/2 Mile WNW
6	3-1649-009	1/4 - 1/2 Mile ESE
7	3-1649-008	1/2 - 1 Mile ESE
8	3-1649-007	1/2 - 1 Mile SE
9	3-1649-001	1/2 - 1 Mile ESE
B10	3-1749-012	1/2 - 1 Mile ENE
B11	3-1749-017	1/2 - 1 Mile ENE
B12	3-1749-013	1/2 - 1 Mile ENE
13	3-1749-003	1/2 - 1 Mile NE
B14	3-1749-002	1/2 - 1 Mile ENE
15	3-1749-005	1/2 - 1 Mile NE
B16	3-1749-010	1/2 - 1 Mile ENE
C17	3-1749-011	1/2 - 1 Mile ENE
C18	3-1749-001	1/2 - 1 Mile ENE
19	3-1749-023	1/2 - 1 Mile East
D20	3-1750-013	1/2 - 1 Mile NW
D21	3-1750-012	1/2 - 1 Mile NW
22	3-1749-008	1/2 - 1 Mile East
D23	3-1750-010	1/2 - 1 Mile NW
24	3-1749-014	1/2 - 1 Mile ENE
25	3-1750-011	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
E26	3-1749-021	1/2 - 1 Mile NNE
E27	3-1749-020	1/2 - 1 Mile NNE
F28	3-1649-004	1/2 - 1 Mile ESE
29	3-1750-002	1/2 - 1 Mile North
30	3-1649-006	1/2 - 1 Mile East
31	3-1749-007	1/2 - 1 Mile ENE
F32	3-1649-003	1/2 - 1 Mile ESE

PHYSICAL SETTING SOURCE MAP - 1685160.6s

- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location

SITE NAME: Waikiki Beachwalk Property ADDRESS: 270-286 Beachwalk Street Honolulu HI 96815 LAT/LONG: 21.2811 / 157.8310	CLIENT: LFR Inc CONTACT: Jon Mollison INQUIRY #: 1685160.6s DATE: May 26, 2006

Copyright © 2006 EDR, Inc. © 2006 Tele Atlas Rel. 07/2005.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
A1 **WNW** **1/4 - 1/2 Mile** **Higher**	**HI WELLS**	**3-1750-006**

Wid:	3-1750-006	Island Code:	3
Island Name:	Oahu	Well no:	1750-06
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1955	Driller:	SAMSON-SMOCK
Quad_map:	13	Latitude:	211709
Longitude:	1575020	UTM:	Y
Gps:	N	Owner/user:	Hilton Hotel
Old number:	30-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	Not Reported	Well depth:	122
Solid casing Depth:	93	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-6-008:034	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1955 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

2 **SE** **1/4 - 1/2 Mile** **Higher**	**HI WELLS**	**3-1649-012**

Wid:	3-1649-012	Island Code:	3
Island Name:	Oahu	Well no:	1649-12
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1967	Driller:	NAT WHITON
Quad_map:	13	Latitude:	211648
Longitude:	1574948	UTM:	Y
Gps:	N	Owner/user:	Kyo Ya Ltd
Old number:	23-1	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	Not Reported	Well depth:	105

Solid casing Depth:	54	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	200	Drop in water Lvl:	0.2
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	RS	Geology desc:	Unconsolidated marine calcareous sediments
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	1000
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-6-001:013	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1967 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

3
West
1/4 - 1/2 Mile
Higher

HI WELLS **3-1750-004**

Wid:	3-1750-004	Island Code:	3
Island Name:	Oahu	Well no:	1750-04
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1950	Driller:	SAMSON-SMOCK
Quad_map:	13	Latitude:	211706
Longitude:	1575024	UTM:	Y
Gps:	N	Owner/user:	Niumalu Hotel
Old number:	30-3	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	10
Ground Elev:	Not Reported	Well depth:	62
Solid casing Depth:	61	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	230	Drop in water Lvl:	1.0
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	230
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-6-008:034	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1950 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A4
WNW
1/4 - 1/2 Mile
Higher

HI WELLS **3-1750-008**

Wid:	3-1750-008	Island Code:	3
Island Name:	Oahu	Well no:	1750-08
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1955	Driller:	SAMSON-SMOCK
Quad_map:	13	Latitude:	211713
Longitude:	1575022	UTM:	Y
Gps:	N	Owner/user:	Hilton Hotel
Old number:	30-2	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	Not Reported	Well depth:	90
Solid casing Depth:	42	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-6-009:009	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1955 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

A5
WNW
1/4 - 1/2 Mile
Higher

HI WELLS **3-1750-007**

Wid:	3-1750-007	Island Code:	3
Island Name:	Oahu	Well no:	1750-07
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1955	Driller:	SAMSON-SMOCK
Quad_map:	13	Latitude:	211713
Longitude:	1575022	UTM:	Y
Gps:	N	Owner/user:	Hilton Hotel
Old number:	30-1	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	Not Reported	Well depth:	120

Solid casing Depth:	98	Perf casing Depth:	Not Reported
Use:	UNU	Use Desc:	Unused
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-6-009:009	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1955 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

6
ESE **HI WELLS** **3-1649-009**
1/4 - 1/2 Mile
Higher

Wid:	3-1649-009	Island Code:	3
Island Name:	Oahu	Well no:	1649-09
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1914	Driller:	Not Reported
Quad_map:	13	Latitude:	211655
Longitude:	1574938	UTM:	Y
Gps:	N	Owner/user:	Matson Nav Co
Old number:	23-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	4	Well depth:	810
Solid casing Depth:	781	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	28	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	9.6
Geology:	TKB	Geology desc:	Tertiary Koolau basalt
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-806	bot_solid depth:	-777
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	9.6	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1914 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
7 **ESE** **1/2 - 1 Mile** **Higher**	**HI WELLS**	**3-1649-008**

Wid:	3-1649-008	Island Code:	3
Island Name:	Oahu	Well no:	1649-08
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1900	Driller:	AI
Quad_map:	13	Latitude:	211654
Longitude:	1574932	UTM:	Y
Gps:	N	Owner/user:	Guardian Trus
Old number:	19-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	5	Well depth:	666
Solid casing Depth:	608	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	28	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	20.5
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-661	bot_solid depth:	-603
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	20.5	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/02/1900 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

8
SE **HI WELLS** **3-1649-007**
1/2 - 1 Mile
Higher

Wid:	3-1649-007	Island Code:	3
Island Name:	Oahu	Well no:	1649-07
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1892	Driller:	MCCANDLESS
Quad_map:	13	Latitude:	211638
Longitude:	1574936	UTM:	Y
Gps:	N	Owner/user:	State Of Haw
Old number:	22-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	10
Ground Elev:	5	Well depth:	941

Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	27	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	5.5
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-936	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	5.5	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1892 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

9
ESE **HI WELLS** **3-1649-001**
1/2 - 1 Mile
Higher

Wid:	3-1649-001	Island Code:	3
Island Name:	Oahu	Well no:	1649-01
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1882	Driller:	Not Reported
Quad_map:	13	Latitude:	211647
Longitude:	1574928	UTM:	Y
Gps:	N	Owner/user:	Lucas G
Old number:	21-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	5	Well depth:	856
Solid casing Depth:	856	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	27	Water Top Elev:	7
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	7.0
Geology:	TKB	Geology desc:	Tertiary Koolau basalt
Installed:	Not Reported	Last Measured:	00
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-851	bot_solid depth:	-851
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	7	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1882 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation Database EDR ID Number

B10
ENE **HI WELLS** **3-1749-012**
1/2 - 1 Mile
Higher

Wid:	3-1749-012	Island Code:	3
Island Name:	Oahu	Well no:	1749-12
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1889	Driller:	Not Reported
Quad_map:	13	Latitude:	211720
Longitude:	1574927	UTM:	Y
Gps:	N	Owner/user:	Char Y T
Old number:	33-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	12	Well depth:	521
Solid casing Depth:	418	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	49	Water Top Elev:	19.9
Chloride value:	240	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	24.4
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-509	bot_solid depth:	-406
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	24.4	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1889 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

B11
ENE **HI WELLS** **3-1749-017**
1/2 - 1 Mile
Higher

Wid:	3-1749-017	Island Code:	3
Island Name:	Oahu	Well no:	1749-17
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1917	Driller:	MCCANDLESS
Quad_map:	13	Latitude:	211718
Longitude:	1574925	UTM:	Y
Gps:	N	Owner/user:	Hawn Hotels
Old number:	29-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	10
Ground Elev:	11	Well depth:	468

Solid casing Depth:	402	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	71	Water Top Elev:	18.5
Chloride value:	83	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	12.7
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-457	bot_solid depth:	-391
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	12.7	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1917 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

B12
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-013**

Wid:	3-1749-013	Island Code:	3
Island Name:	Oahu	Well no:	1749-13
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1889	Driller:	Not Reported
Quad_map:	13	Latitude:	211721
Longitude:	1574926	UTM:	Y
Gps:	N	Owner/user:	Whee L Y
Old number:	34-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	14	Well depth:	500
Solid casing Depth:	430	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	28	Water Top Elev:	23
Chloride value:	216	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	20.8
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-486	bot_solid depth:	-416
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	20.8	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1889 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

13
NE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-003**

Wid:	3-1749-003	Island Code:	3
Island Name:	Oahu	Well no:	1749-03
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1882	Driller:	COOKE-PEDDLER
Quad_map:	13	Latitude:	211734
Longitude:	1574936	UTM:	Y
Gps:	N	Owner/user:	Magoon Trust
Old number:	40-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	Not Reported
Ground Elev:	10	Well depth:	730
Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-720	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1882 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

B14
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-002**

Wid:	3-1749-002	Island Code:	3
Island Name:	Oahu	Well no:	1749-02
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1881	Driller:	Not Reported
Quad_map:	13	Latitude:	211720
Longitude:	1574924	UTM:	Y
Gps:	N	Owner/user:	Shee Y C
Old number:	28-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	13	Well depth:	428

Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	38	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	TKB	Geology desc:	Tertiary Koolau basalt
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-415	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1881 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

15
NE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-005**

Wid:	3-1749-005	Island Code:	3
Island Name:	Oahu	Well no:	1749-05
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1883	Driller:	Not Reported
Quad_map:	13	Latitude:	211730
Longitude:	1574929	UTM:	Y
Gps:	N	Owner/user:	Ung T Y
Old number:	35-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	8	Well depth:	587
Solid casing Depth:	564	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	45	Water Top Elev:	24.8
Chloride value:	37	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	24.8
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-579	bot_solid depth:	-556
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	24.8	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1883 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B16
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-010**

Wid:	3-1749-010	Island Code:	3
Island Name:	Oahu	Well no:	1749-10
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1889	Driller:	Not Reported
Quad_map:	13	Latitude:	211722
Longitude:	1574923	UTM:	Y
Gps:	N	Owner/user:	Tsumoto F Y
Old number:	31-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	13	Well depth:	463
Solid casing Depth:	424	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	40	Water Top Elev:	23.2
Chloride value:	47	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	24.4
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-450	bot_solid depth:	-411
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	24.4	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1889 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

C17
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-011**

Wid:	3-1749-011	Island Code:	3
Island Name:	Oahu	Well no:	1749-11
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1889	Driller:	Not Reported
Quad_map:	13	Latitude:	211723
Longitude:	1574923	UTM:	Y
Gps:	N	Owner/user:	Dumae S S
Old number:	32-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	10
Ground Elev:	14	Well depth:	475

Solid casing Depth:	420	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	45	Water Top Elev:	24
Chloride value:	47	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	24.8
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-461	bot_solid depth:	-406
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	24.8	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1889 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

C18
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-001**

Wid:	3-1749-001	Island Code:	3
Island Name:	Oahu	Well no:	1749-01
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1881	Driller:	Not Reported
Quad_map:	13	Latitude:	211725
Longitude:	1574922	UTM:	Y
Gps:	N	Owner/user:	Spencer C K
Old number:	27-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	15	Well depth:	407
Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	72	Water Top Elev:	22.7
Chloride value:	28	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	22.9
Geology:	TKB	Geology desc:	Tertiary Koolau basalt
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-392	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	22.9	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1881 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

19
East
1/2 - 1 Mile
Higher

HI WELLS **3-1749-023**

Wid:	3-1749-023	Island Code:	3
Island Name:	Oahu	Well no:	1749-23
Well name:	Ala Wai Pit 5	Old name:	Not Reported
Yr drilled:	1964	Driller:	Not Reported
Quad_map:	13	Latitude:	211708
Longitude:	1574916	UTM:	Y
Gps:	N	Owner/user:	C&C Pks&Rec
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	18
Ground Elev:	Not Reported	Well depth:	12
Solid casing Depth:	4	Perf casing Depth:	Not Reported
Use:	IRR	Use Desc:	Irrigation
Use year:	Not Reported	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	700
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	01/01/1987 00:00:00	Max Cl year:	87
Min chlorides:	Not Reported	Min Cl year:	87
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	1.008	Draft (mgd):	Not Reported
Tax map key:	2-7-036:002	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1964 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

D20
NW
1/2 - 1 Mile
Higher

HI WELLS **3-1750-013**

Wid:	3-1750-013	Island Code:	3
Island Name:	Oahu	Well no:	1750-13
Well name:	Yacht Harbor 2	Old name:	Not Reported
Yr drilled:	1972	Driller:	Not Reported
Quad_map:	13	Latitude:	211732
Longitude:	1575037	UTM:	Y
Gps:	N	Owner/user:	Yacht Harbor Towers
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	Not Reported
Ground Elev:	Not Reported	Well depth:	Not Reported

Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	72	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	1800
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	2.592	Draft (mgd):	Not Reported
Tax map key:	2-3-036:039	Aquifer code:	30102
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	18750	Const. Date:	Not Reported
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

D21
NW
1/2 - 1 Mile
Higher

HI WELLS **3-1750-012**

Wid:	3-1750-012	Island Code:	3
Island Name:	Oahu	Well no:	1750-12
Well name:	Yacht Harbor 1	Old name:	Not Reported
Yr drilled:	1972	Driller:	Not Reported
Quad_map:	13	Latitude:	211732
Longitude:	1575037	UTM:	Y
Gps:	N	Owner/user:	Yacht Harbor Towers
Old number:	Not Reported	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	Not Reported
Ground Elev:	Not Reported	Well depth:	Not Reported
Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	72	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	1800
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	2.592	Draft (mgd):	Not Reported
Tax map key:	2-3-036:039	Aquifer code:	30102
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	18750	Const. Date:	Not Reported
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

22
East
1/2 - 1 Mile
Higher

HI WELLS **3-1749-008**

Wid:	3-1749-008	Island Code:	3
Island Name:	Oahu	Well no:	1749-08
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1888	Driller:	Not Reported
Quad_map:	13	Latitude:	211712
Longitude:	1574912	UTM:	Y
Gps:	N	Owner/user:	Chang Kim
Old number:	24-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	4
Ground Elev:	10	Well depth:	410
Solid casing Depth:	196	Perf casing Depth:	Not Reported
Use:	Not Reported	Use Desc:	Not Reported
Use year:	74	Water Top Elev:	20.1
Chloride value:	51	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	11	Static Water Lvl:	26.5
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-400	bot_solid depth:	-186
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	0.0
Tax map key:	2-7-035:069	Aquifer code:	30101
Latest head mmt:	26.5	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1888 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

D23
NW
1/2 - 1 Mile
Higher

HI WELLS **3-1750-010**

Wid:	3-1750-010	Island Code:	3
Island Name:	Oahu	Well no:	1750-10
Well name:	Ala Moana	Old name:	Not Reported
Yr drilled:	1967	Driller:	NAT WHITON
Quad_map:	13	Latitude:	211733
Longitude:	1575041	UTM:	Y
Gps:	N	Owner/user:	Ala Moana Ctr
Old number:	63-2A	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	18
Ground Elev:	4	Well depth:	88

Solid casing Depth:	42	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	2.8
Chloride value:	13954	Test date:	Not Reported
Pumping Test rate:	600	Drop in water Lvl:	0.8
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-84	bot_solid depth:	-38
Bot_perf depth:	Not Reported	Well Capacity:	750
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-3-038:001	Aquifer code:	30102
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1967 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

24
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-014**

Wid:	3-1749-014	Island Code:	3
Island Name:	Oahu	Well no:	1749-14
Well name:	Kaimuki High Sch	Old name:	Not Reported
Yr drilled:	1891	Driller:	Not Reported
Quad_map:	13	Latitude:	211721
Longitude:	1574914	UTM:	Y
Gps:	N	Owner/user:	Honolulu Bws
Old number:	26-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	13	Well depth:	417
Solid casing Depth:	282	Perf casing Depth:	Not Reported
Use:	OBS	Use Desc:	Observation
Use year:	74	Water Top Elev:	24.8
Chloride value:	57	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	21.3
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	01/01/1987 00:00:00	Max Cl year:	87
Min chlorides:	01/01/1987 00:00:00	Min Cl year:	87
Bot_hole depth:	-404	bot_solid depth:	-269
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-7-024:001	Aquifer code:	30101
Latest head mmt:	21.3	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1891 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

25
NW
1/2 - 1 Mile
Higher

HI WELLS **3-1750-011**

Wid:	3-1750-011	Island Code:	3
Island Name:	Oahu	Well no:	1750-11
Well name:	Ala Moana	Old name:	Not Reported
Yr drilled:	1967	Driller:	NAT WHITON
Quad_map:	13	Latitude:	211734
Longitude:	1575042	UTM:	Y
Gps:	N	Owner/user:	Ala Moana Ctr
Old number:	63-2B	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	18
Ground Elev:	5	Well depth:	55
Solid casing Depth:	37	Perf casing Depth:	Not Reported
Use:	OTH	Use Desc:	Other
Use year:	74	Water Top Elev:	2.9
Chloride value:	13451	Test date:	Not Reported
Pumping Test rate:	550	Drop in water Lvl:	0.5
Chloride Test:	17680	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-50	bot_solid depth:	-32
Bot_perf depth:	Not Reported	Well Capacity:	1100
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-3-038:001	Aquifer code:	30102
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1967 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

E26
NNE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-021**

Wid:	3-1749-021	Island Code:	3
Island Name:	Oahu	Well no:	1749-21
Well name:	Moilili	Old name:	Not Reported
Yr drilled:	1954	Driller:	NAT WHITON
Quad_map:	13	Latitude:	211746
Longitude:	1574936	UTM:	Y
Gps:	N	Owner/user:	Star Market
Old number:	35-1B	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	Not Reported	Well depth:	28

Solid casing Depth:	11	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	82	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	100	Drop in water Lvl:	1.0
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	Not Reported
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	100
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	2-8-005:002	Aquifer code:	30101
Latest head mmt:	0	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1954 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

E27
NNE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-020**

Wid:	3-1749-020	Island Code:	3
Island Name:	Oahu	Well no:	1749-20
Well name:	Moiliili	Old name:	Not Reported
Yr drilled:	1954	Driller:	NAT WHITON
Quad_map:	13	Latitude:	211746
Longitude:	1574936	UTM:	Y
Gps:	N	Owner/user:	Star Market
Old number:	35-1A	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	12
Ground Elev:	Not Reported	Well depth:	28
Solid casing Depth:	10	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	82	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	200	Drop in water Lvl:	2.4
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	18
Annual Draft:	14	Static Water Lvl:	7.0
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	Not Reported	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	83
Pump Capacity:	.025	Draft (mgd):	0.0
Tax map key:	2-8-005:002	Aquifer code:	30101
Latest head mmt:	7	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1954 00:00:00
Pump Inst. Date:	01/01/1954 00:00:00	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID Direction Distance Elevation	Database	EDR ID Number
F28 **ESE** **1/2 - 1 Mile** **Higher**	**HI WELLS**	**3-1649-004**

Wid:	3-1649-004	Island Code:	3
Island Name:	Oahu	Well no:	1649-04
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1883	Driller:	Not Reported
Quad_map:	13	Latitude:	211647
Longitude:	1574912	UTM:	Y
Gps:	N	Owner/user:	Campbell Est
Old number:	17-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	4	Well depth:	825
Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	25	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	7.5
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-821	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	7.5	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1883 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

29
North
1/2 - 1 Mile
Higher

HI WELLS **3-1750-002**

Wid:	3-1750-002	Island Code:	3
Island Name:	Oahu	Well no:	1750-02
Well name:	Mccully	Old name:	Not Reported
Yr drilled:	1890	Driller:	Not Reported
Quad_map:	13	Latitude:	211753
Longitude:	1575002	UTM:	Y
Gps:	N	Owner/user:	Kam Y
Old number:	45-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	9	Well depth:	416

Solid casing Depth:	363	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	76	Water Top Elev:	29.6
Chloride value:	75	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	36	Static Water Lvl:	25.6
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-407	bot_solid depth:	-354
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	0.1
Tax map key:	2-3-028:005	Aquifer code:	30102
Latest head mmt:	25.6	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1890 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

30
East
1/2 - 1 Mile
Higher

HI WELLS **3-1649-006**

Wid:	3-1649-006	Island Code:	3
Island Name:	Oahu	Well no:	1649-06
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1891	Driller:	Not Reported
Quad_map:	13	Latitude:	211658
Longitude:	1574908	UTM:	Y
Gps:	N	Owner/user:	State Of Haw
Old number:	14-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	4	Well depth:	516
Solid casing Depth:	507	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	28	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	24.2
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-512	bot_solid depth:	-503
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	24.2	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1891 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

Map ID
Direction
Distance
Elevation

Database EDR ID Number

31
ENE
1/2 - 1 Mile
Higher

HI WELLS **3-1749-007**

Wid:	3-1749-007	Island Code:	3
Island Name:	Oahu	Well no:	1749-07
Well name:	Kapahulu	Old name:	Not Reported
Yr drilled:	1885	Driller:	Not Reported
Quad_map:	13	Latitude:	211718
Longitude:	1574910	UTM:	Y
Gps:	N	Owner/user:	State Of Haw
Old number:	25-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	8
Ground Elev:	18	Well depth:	625
Solid casing Depth:	309	Perf casing Depth:	Not Reported
Use:	OBS	Use Desc:	Observation
Use year:	74	Water Top Elev:	25
Chloride value:	56	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	219	Static Water Lvl:	27.1
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	0
Min chlorides:	Not Reported	Min Cl year:	0
Bot_hole depth:	-607	bot_solid depth:	-291
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	0.6
Tax map key:	2-7-024:001	Aquifer code:	30101
Latest head mmt:	27.1	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1885 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

F32
ESE
1/2 - 1 Mile
Higher

HI WELLS **3-1649-003**

Wid:	3-1649-003	Island Code:	3
Island Name:	Oahu	Well no:	1649-03
Well name:	Waikiki	Old name:	Not Reported
Yr drilled:	1883	Driller:	Not Reported
Quad_map:	13	Latitude:	211646
Longitude:	1574910	UTM:	Y
Gps:	N	Owner/user:	Campbell Est
Old number:	16-	Well_type:	Not Reported
Type:	Not Reported	Casing dia:	6
Ground Elev:	4	Well depth:	746

Solid casing Depth:	Not Reported	Perf casing Depth:	Not Reported
Use:	SLD	Use Desc:	Sealed
Use year:	25	Water Top Elev:	0
Chloride value:	0	Test date:	Not Reported
Pumping Test rate:	Not Reported	Drop in water Lvl:	Not Reported
Chloride Test:	Not Reported	Temperature:	Not Reported
Units:	Not Reported	Pump Capacity:	0
Annual Draft:	Not Reported	Static Water Lvl:	5.8
Geology:	Not Reported	Geology desc:	Not Reported
Installed:	Not Reported	Last Measured:	Not Reported
Max chlorides:	Not Reported	Max Cl year:	Not Reported
Min chlorides:	Not Reported	Min Cl year:	Not Reported
Bot_hole depth:	-742	bot_solid depth:	Not Reported
Bot_perf depth:	Not Reported	Well Capacity:	Not Reported
Pump Capacity:	Not Reported	Draft (mgd):	Not Reported
Tax map key:	Not Reported	Aquifer code:	30101
Latest head mmt:	5.8	Cur head mmt:	Not Reported
Current Cl mmt:	Not Reported	Const. Date:	01/01/1883 00:00:00
Pump Inst. Date:	Not Reported	Surveyor:	Not Reported
Transmissivity:	0	Pump intake elev:	Not Reported
Pump depth:	Not Reported		

33
SSE **FRDS PWS** **HI0000331**
1/2 - 1 Mile
Lower

PWS ID:	HI0000331	PWS Status:	Not Reported
Date Initiated:	Not Reported	Date Deactivated:	Not Reported

PWS Name: HONOLULU-WINDWARD-PEARL HARBOR
630 S BERETANIA STREET
630 SOUTH BERETANIA
HONOLULU, OANU, HI 96843

Source: Ground water
Treatment Objective: DISINFECTION — Process: GASEOUS CHLORINATION, POST
Treatment Objective: DISINFECTION — Process: CHLORINATION (FRDS-1.5)

Addressee / Facility: System Owner/Responsible Party
MR. KAZU HAYASHIDA
BOARD OF WATER SUPPLY
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

Facility Latitude:	21 12 17.0000	Facility Longitude:	157 48 58.0000
Facility Latitude:	21 16 13.0000	Facility Longitude:	157 49 47.0000
Facility Latitude:	21 17 7.0000	Facility Longitude:	157 46 17.0000
Facility Latitude:	21 17 13.0000	Facility Longitude:	157 46 53.0000
Facility Latitude:	21 17 19.0000	Facility Longitude:	157 47 36.0000
Facility Latitude:	21 17 27.0000	Facility Longitude:	157 48 58.0000
Facility Latitude:	21 17 53.0000	Facility Longitude:	157 45 19.0000
Facility Latitude:	21 18 13.0000	Facility Longitude:	157 49 47.0000
Facility Latitude:	21 18 31.0000	Facility Longitude:	157 51 20.0000
Facility Latitude:	21 18 31.0000	Facility Longitude:	157 51 43.0000
Facility Latitude:	21 18 33.0000	Facility Longitude:	157 51 23.0000

Facility Latitude:	21 18 37.0000	Facility Longitude:	157 47 29.0000
Facility Latitude:	21 19 36.0000	Facility Longitude:	157 46 27.0000
Facility Latitude:	21 19 53.0000	Facility Longitude:	157 52 27.0000
Facility Latitude:	21 19 58.0000	Facility Longitude:	157 43 58.0000
Facility Latitude:	21 19 59.0000	Facility Longitude:	157 47 33.0000
Facility Latitude:	21 19 59.0000	Facility Longitude:	157 48 18.0000
Facility Latitude:	21 20 2.0000	Facility Longitude:	157 52 8.0000
Facility Latitude:	21 20 7.0000	Facility Longitude:	157 44 44.0000
Facility Latitude:	21 20 11.0000	Facility Longitude:	157 45 12.0000
Facility Latitude:	21 20 12.0000	Facility Longitude:	157 44 55.0000
Facility Latitude:	21 20 14.0000	Facility Longitude:	157 45 1.0000
Facility Latitude:	21 20 52.0000	Facility Longitude:	157 52 36.0000
Facility Latitude:	21 21 16.0000	Facility Longitude:	157 49 14.0000
Facility Latitude:	21 21 17.0000	Facility Longitude:	157 48 40.0000
Facility Latitude:	21 21 19.0000	Facility Longitude:	157 53 54.0000
Facility Latitude:	21 21 20.0000	Facility Longitude:	157 53 54.0000
Facility Latitude:	21 21 20.0000	Facility Longitude:	157 53 55.0000
Facility Latitude:	21 21 27.0000	Facility Longitude:	157 49 5.0000
Facility Latitude:	21 21 52.0000	Facility Longitude:	157 48 11.0000
Facility Latitude:	21 22 14.0000	Facility Longitude:	157 50 11.0000
Facility Latitude:	21 22 28.0000	Facility Longitude:	157 49 49.0000
Facility Latitude:	21 22 35.0000	Facility Longitude:	157 49 55.0000
Facility Latitude:	21 22 56.0000	Facility Longitude:	157 49 35.0000
Facility Latitude:	21 22 57.0000	Facility Longitude:	157 55 14.0000
Facility Latitude:	21 22 58.0000	Facility Longitude:	157 49 35.0000
Facility Latitude:	21 23 5.0000	Facility Longitude:	157 48 31.0000
Facility Latitude:	21 23 5.0000	Facility Longitude:	157 54 26.0000
Facility Latitude:	21 23 13.0000	Facility Longitude:	127 55 35.0000
Facility Latitude:	21 23 13.0000	Facility Longitude:	157 55 35.0000
Facility Latitude:	21 23 20.0000	Facility Longitude:	157 56 3.0000
Facility Latitude:	21 23 22.0000	Facility Longitude:	157 48 52.0000
Facility Latitude:	21 23 22.0000	Facility Longitude:	157 55 3.0000
Facility Latitude:	21 23 27.0000	Facility Longitude:	157 56 43.0000
Facility Latitude:	21 23 27.0000	Facility Longitude:	157 56 47.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 55 53.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 57 25.0000
Facility Latitude:	21 23 37.0000	Facility Longitude:	157 57 27.0000
Facility Latitude:	21 23 38.0000	Facility Longitude:	157 55 54.0000
Facility Latitude:	21 23 38.0000	Facility Longitude:	157 55 55.0000
Facility Latitude:	21 23 38.0000	Facility Longitude:	157 56 49.0000
Facility Latitude:	21 23 39.0000	Facility Longitude:	157 55 53.0000
Facility Latitude:	21 23 39.0000	Facility Longitude:	157 55 54.0000
Facility Latitude:	21 23 39.0000	Facility Longitude:	157 55 55.0000
Facility Latitude:	21 23 42.0000	Facility Longitude:	157 49 9.0000
Facility Latitude:	21 23 42.0000	Facility Longitude:	157 56 47.0000
Facility Latitude:	21 23 48.0000	Facility Longitude:	157 56 22.0000
Facility Latitude:	21 23 49.0000	Facility Longitude:	157 56 22.0000
Facility Latitude:	21 24 7.0000	Facility Longitude:	157 58 25.0000
Facility Latitude:	21 24 10.0000	Facility Longitude:	157 56 45.0000
Facility Latitude:	21 24 11.0000	Facility Longitude:	157 56 46.0000
Facility Latitude:	21 24 12.0000	Facility Longitude:	157 56 47.0000
Facility Latitude:	21 24 12.0000	Facility Longitude:	158 57 23.0000
Facility Latitude:	21 24 13.0000	Facility Longitude:	157 58 12.0000
Facility Latitude:	21 24 13.0000	Facility Longitude:	158 57 24.0000
Facility Latitude:	21 24 14.0000	Facility Longitude:	157 57 6.0000
Facility Latitude:	21 24 14.0000	Facility Longitude:	158 57 25.0000

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Facility Latitude:	21 24 35.0000	Facility Longitude:	157 50 2.0000
Facility Latitude:	21 24 37.0000	Facility Longitude:	157 50 8.0000
Facility Latitude:	21 24 39.0000	Facility Longitude:	157 57 59.0000
Facility Latitude:	21 25 7.0000	Facility Longitude:	157 49 41.0000
Facility Latitude:	21 25 53.0000	Facility Longitude:	157 57 31.0000
Facility Latitude:	21 26 16.0000	Facility Longitude:	157 51 23.0000
Facility Latitude:	21 26 16.0000	Facility Longitude:	157 51 32.0000
Facility Latitude:	21 26 39.0000	Facility Longitude:	157 52 12.0000
Facility Latitude:	21 26 58.0000	Facility Longitude:	157 51 40.0000
Facility Latitude:	21 27 2.0000	Facility Longitude:	157 51 41.0000
Facility Latitude:	21 27 3.0000	Facility Longitude:	157 51 38.0000
Facility Latitude:	21 33 14.0000	Facility Longitude:	157 53 8.0000
Facility Latitude:	21 33 15.0000	Facility Longitude:	157 53 11.0000
Facility Latitude:	21 34 39.0000	Facility Longitude:	157 53 47.0000
Facility Latitude:	21 34 41.0000	Facility Longitude:	157 49 17.0000
Facility Latitude:	21 34 41.0000	Facility Longitude:	157 53 44.0000
Facility Latitude:	21 34 50.0000	Facility Longitude:	157 53 12.0000
Facility Latitude:	21 35 17.0000	Facility Longitude:	157 53 46.0000
Facility Latitude:	21 35 17.0000	Facility Longitude:	157 53 49.0000
Facility Latitude:	21 35 22.0000	Facility Longitude:	157 53 53.0000
Facility Latitude:	21 35 27.0000	Facility Longitude:	157 53 59.0000
Facility Latitude:	21 36 39.0000	Facility Longitude:	157 52 12.0000
City Served:	AIEA		
City Served:	HONO-WINDW-PEAR		
City Served:	HONOLULU		
City Served:	KAILUA		
City Served:	KANEOHE		
City Served:	PEARL CITY		
Treatment Class:	Mixed (treated and untreated)	Population:	645741

PWS currently has or had major violation(s) or enforcement: No

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for HONOLULU County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96815

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	-0.650 pCi/L	100%	0%	0%
Living Area - 2nd Floor	-0.600 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Ground Water Wells
Source: Department of Land and Natural Resources
Telephone: 808-587-0242

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

STREET AND ADDRESS INFORMATION

© 2006 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX B

Historical Sanborn Maps

"Linking Technology with Tradition"®

Sanborn® Map Report

Ship To: Jon Mollison
LFR Inc
220 South King Street
Honolulu, HI 96813

Order Date: 5/26/2006 **Completion Date:** 5/31/2006
Inquiry #: 1685160.7S
P.O. #: 005-11082-00
Site Name: Waikiki Beachwalk Property
Address: 270-286 Beachwalk Street/321 Saratoga
City/State: Honolulu, HI 96815
Cross Streets: 321 Saratoga Road

Customer Project: Waikiki Beachwa
1164579BRU 808-522-0321

Based on client-supplied information, fire insurance maps for the following years were identified

1914 - 1 Map
1927 - 1 Map
1949 - 1 Map
1956 - 1 Map
1975 - 1 Map
1977 - 1 Map
1991 - 1 Map
1993 - 1 Map

Limited Permission to Photocopy Total Maps: 8

LFR Inc (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2006 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission. EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

USER'S GUIDE

This User's Guide provides guidelines for accessing Sanborn Map® images and for transferring them to your Word Processor.

Reading Sanborn Maps

- Sanborn Maps document historical property use by displaying property information through words, abbreviations, and map symbols. The Sanborn Map Key provides information to help interpret the symbols and abbreviations used on Sanborn Maps. The Key is available from EDR's Web Site at: http://www.edrnet.com/reports/samples/key.pdf

Organization of Electronic Sanborn Image File

- Sanborn Map Report, listing years of coverage
- User's Guide
- Oldest Sanborn Map Image
- Most recent Sanborn Map Image

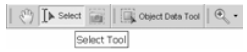
Navigating the Electronic Sanborn Image File

1. Open file on screen.
2. Identify TP (Target Property) on the most recent map.
3. Find TP on older printed images.
4. Using Acrobat® Reader®, zoom to 250% in order to view more clearly. (200-250% is the approximate equivalent scale of hardcopy Sanborn Maps.)
   A. On the menu bar, click "View" and then "Zoom to..."
   B. Or, use the magnifying tool and drag a box around the TP

Printing a Sanborn Map From the Electonic File

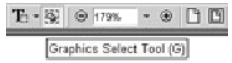
- EDR recommends printing images at 300 dpi (300 dpi prints faster than 600 dpi)
- To print only the TP area, cut and paste from Acrobat to your word processor application.

Acrobat Versions 6 and 7



1. Go to the menu bar
2. Click the "Select Tool"
3. Draw a box around the area selected
4. "Right click" on your mouse
5. Select "Copy Image to Clipboard"
6. Go to Word Processor such as Microsoft Word, paste and print.

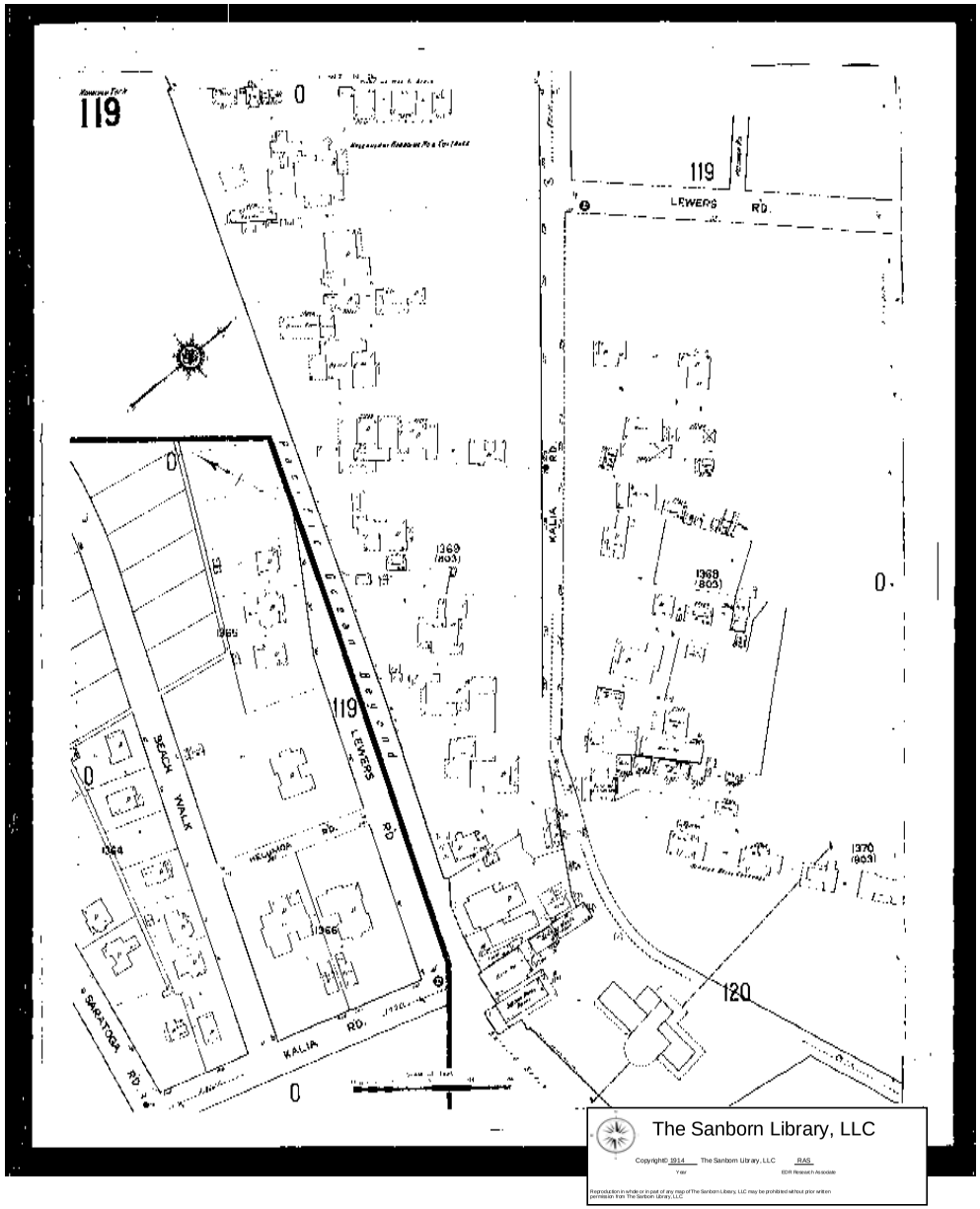
Acrobat Version 5

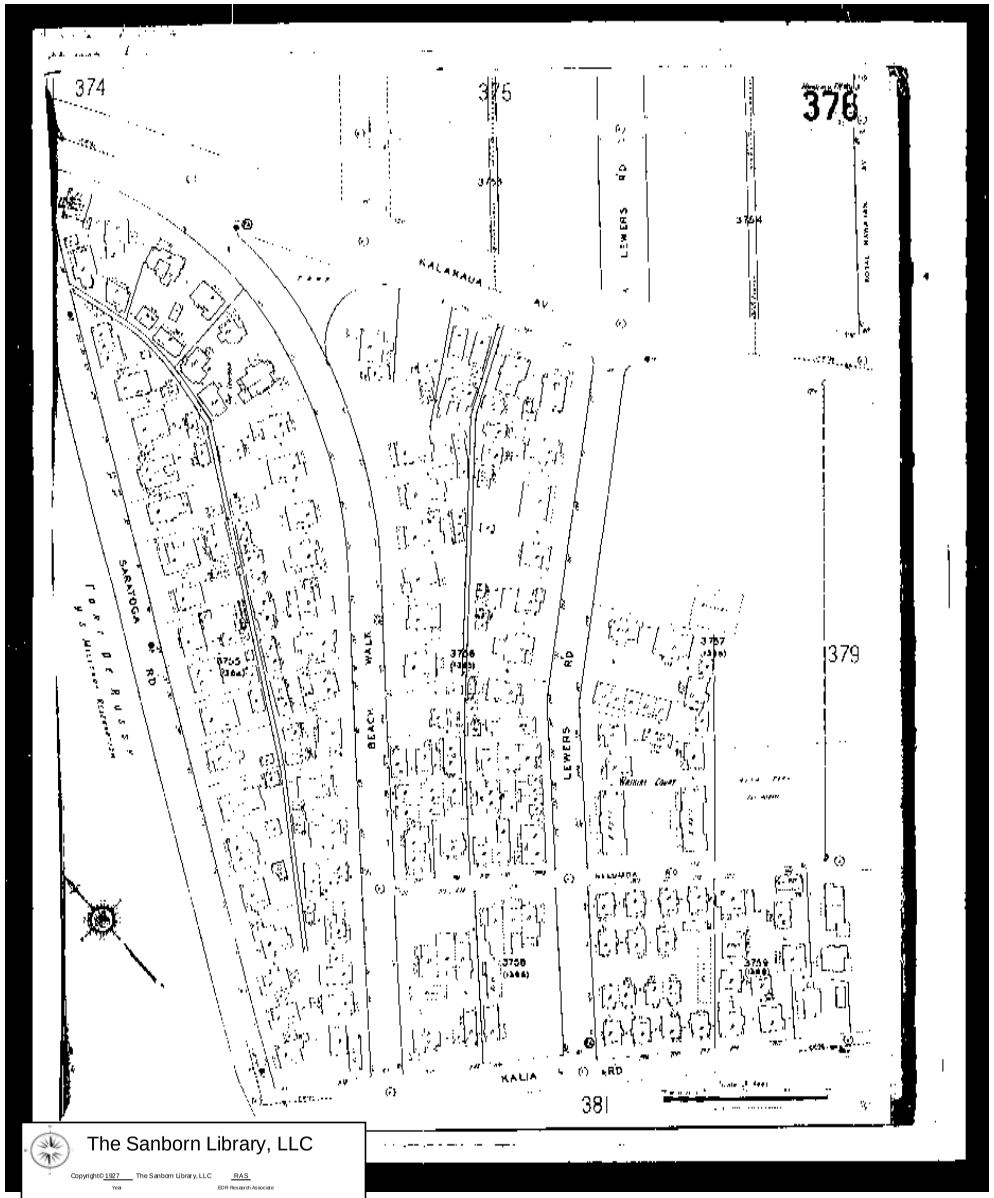


1. Go to the menu bar
2. Click the "Graphics Select Tool"
3. Draw a box around the area selected
4. Go to "Menu"
5. Highlight "Edit"
6. Highlight "Copy"
7. Go to Word Processor such as Microsoft Word, paste and print.

Important Information about Email Delivery of Electronic Sanborn Map Images

- Images are grouped intro one file, up to 2MB.
- In cases where in excess of 6-7 map years are available, the file size typically exceeds 2MB. In these cases, you will receive multiple files, labeled as "1 of 3", "2 of 3", etc. including all available map years.
- Due to file size limitations, certain ISPs, including AOL, may occasionally delay or decline to deliver files. Please contact your ISP to identify their specific file size limitations.





The Sanborn Library, LLC

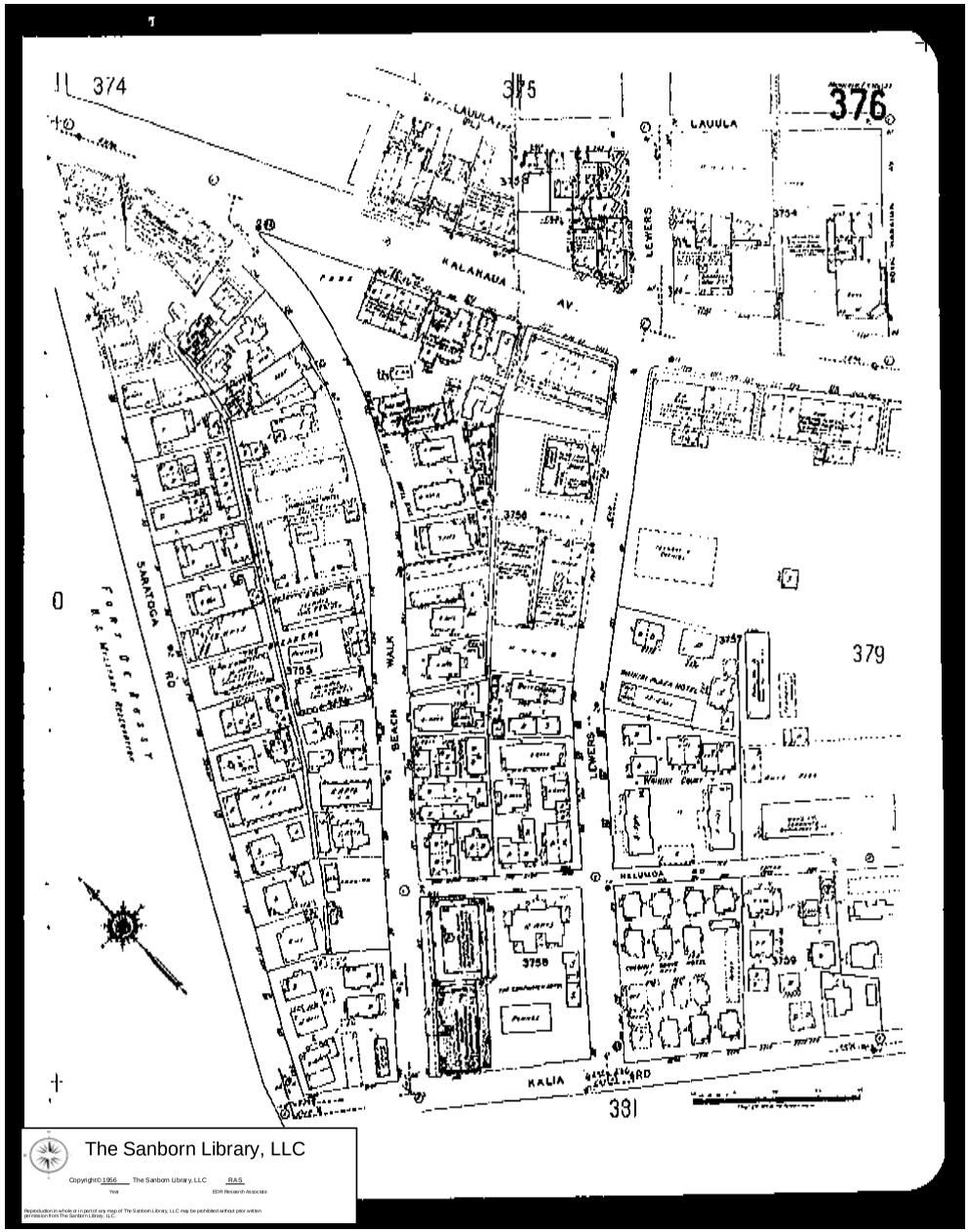
Copyright© 1927 The Sanborn Library, LLC RAS
Year EDR Research Associate

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

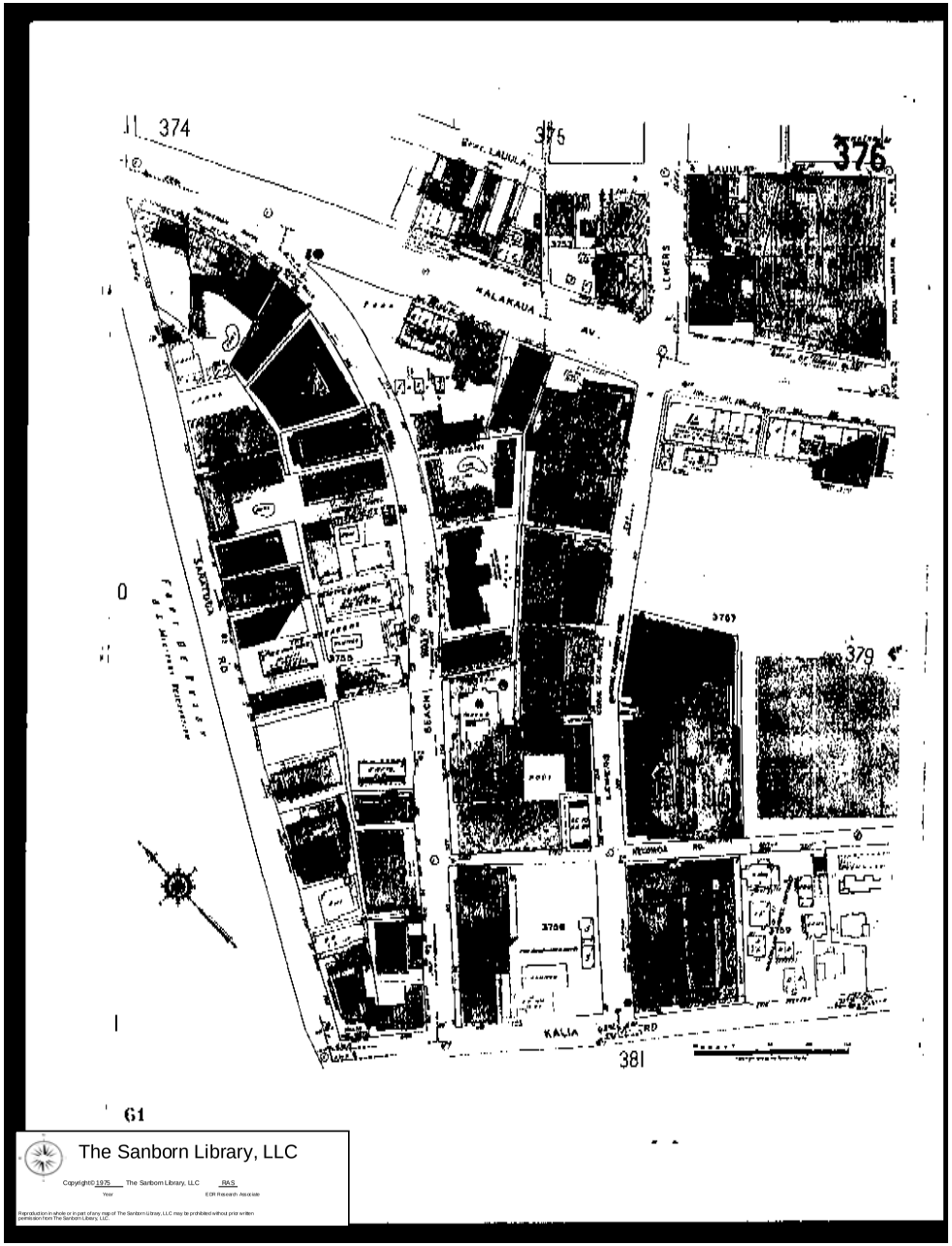
The Sanborn Library, LLC

Copyright© 1949 The Sanborn Library, LLC RAS
Year EDR Research Associate

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.

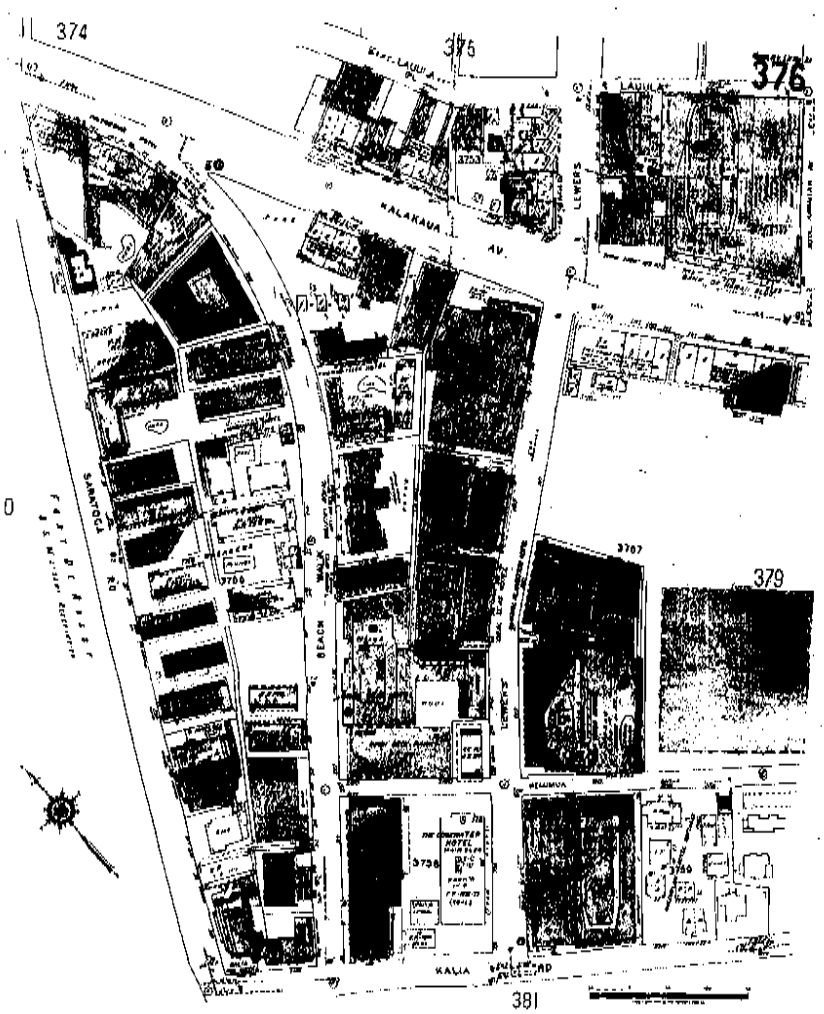


The Sanborn Library, LLC
Copyright© 1956 The Sanborn Library, LLC RAS
Year EDR Research Associate
Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.



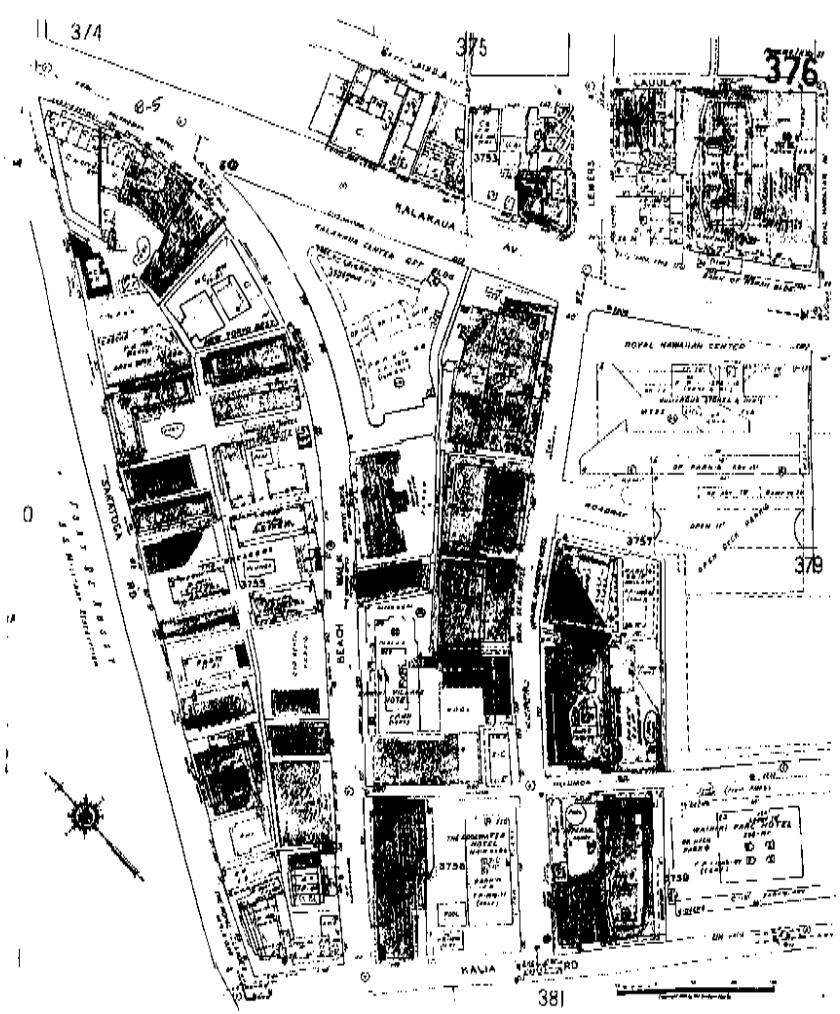
G1

The Sanborn Library, LLC
Copyright© 1975 The Sanborn Library, LLC RAS
Year EDR Research Associate
Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.



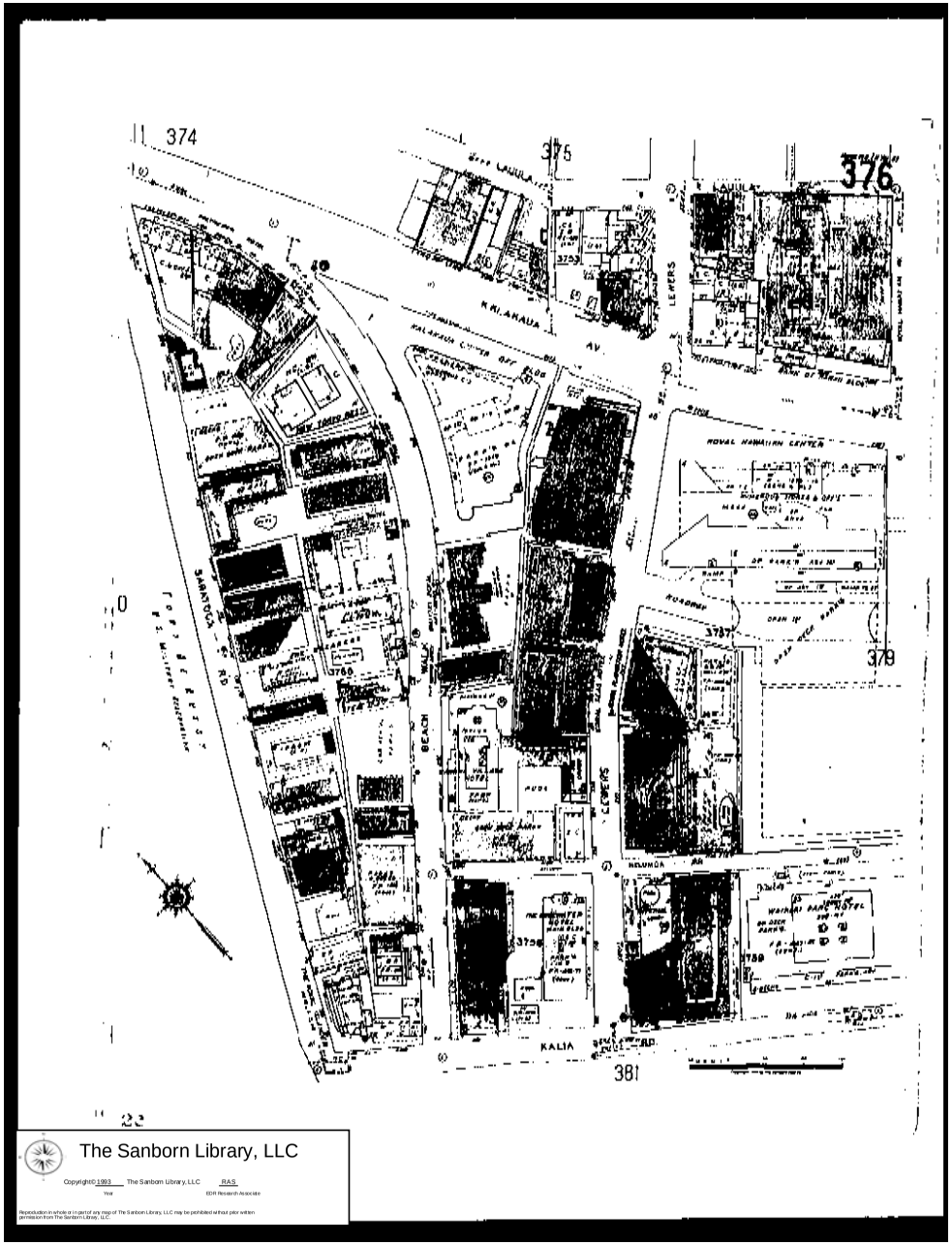
93

The Sanborn Library, LLC
Copyright© 1977 The Sanborn Library, LLC RAS
Year EDR Research Associate
Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.



60

The Sanborn Library, LLC
Copyright© 1991 The Sanborn Library, LLC RAS
Year EDR Research Associate
Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.



APPENDIX C

Historical Aerial Photographs

PHOTO SOURCE: R.M. Towill, Honolulu, Hawaii, Photo Number: 21-8; dated Feburary 15, 1949

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Aerial Photograph dated 2/15/49

Aerial Photographs\005-11082-001\Waikiki Beachwalk Property ESA.ai 06/19/06

PHOTO SOURCE: R.M. Towill, Honolulu, Hawaii, Photo Number: 5367-22; dated July 21, 1970

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Aerial Photograph dated 7/21/1970

Aerial Photographs\005-11082-001\Waikiki Beachwalk Property ESA.ai 06/19/06

PHOTO SOURCE: R.M. Towill, Honolulu, Hawaii, Photo Number: 7389-5; dated May 4, 1978

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Aerial Photograph dated 5/4/78

Aerial Photographs\005-11082-001\Waikiki Beachwalk Property ESA.ai 06/19/06

PHOTO SOURCE: R.M. Towill, Honolulu, Hawaii, Photo Number: 9132-52; dated June 8, 2001

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

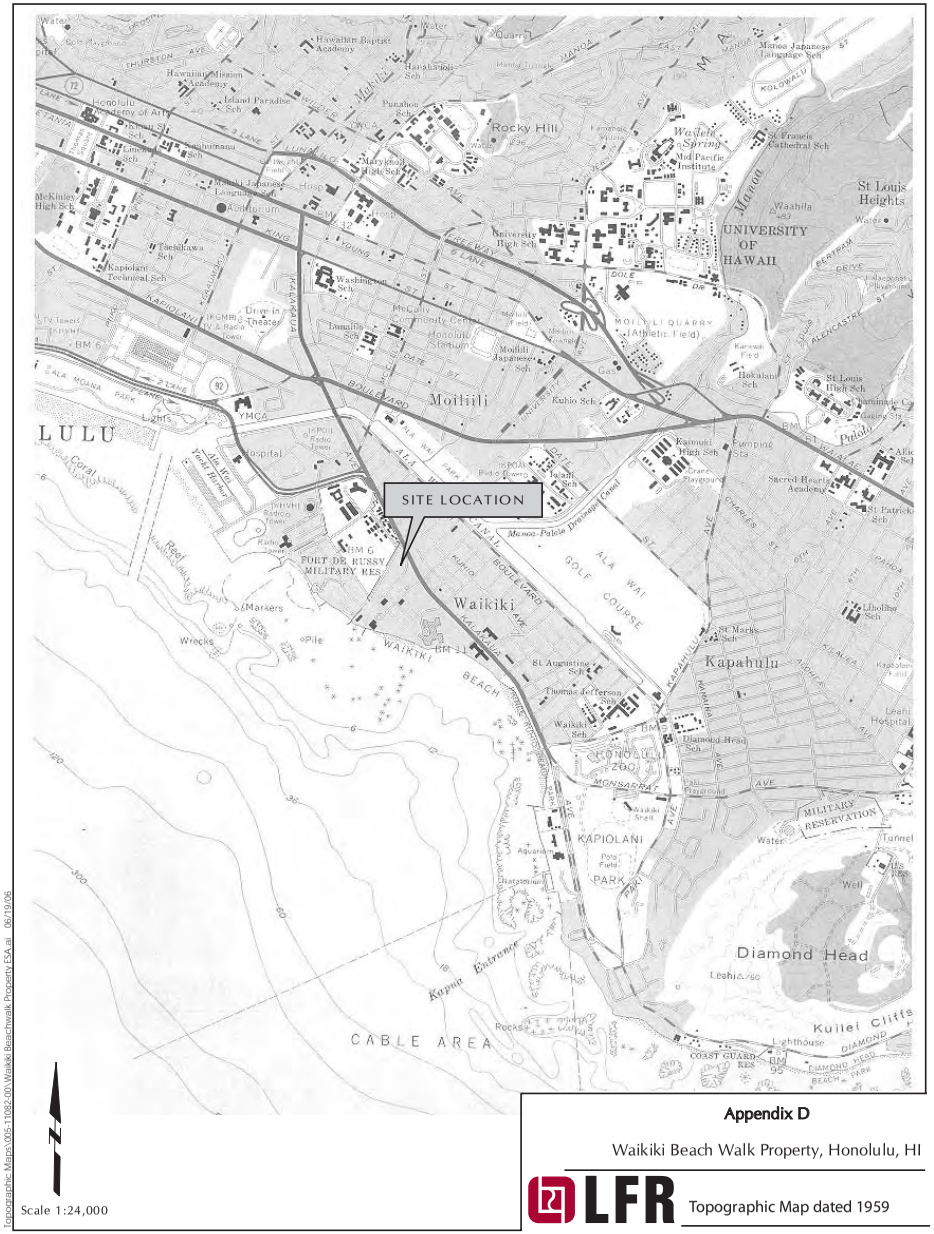
LFR

Aerial Photograph dated 6/8/01

Aerial Photographs\005-11082-001\Waikiki Beachwalk Property ESA.ai 06/19/06

APPENDIX D

Historical Topographic Maps



Topographic Maps\005-11082-001\Waikiki Beachwalk Property ESA.ai 06/19/06

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Topographic Map dated 1959

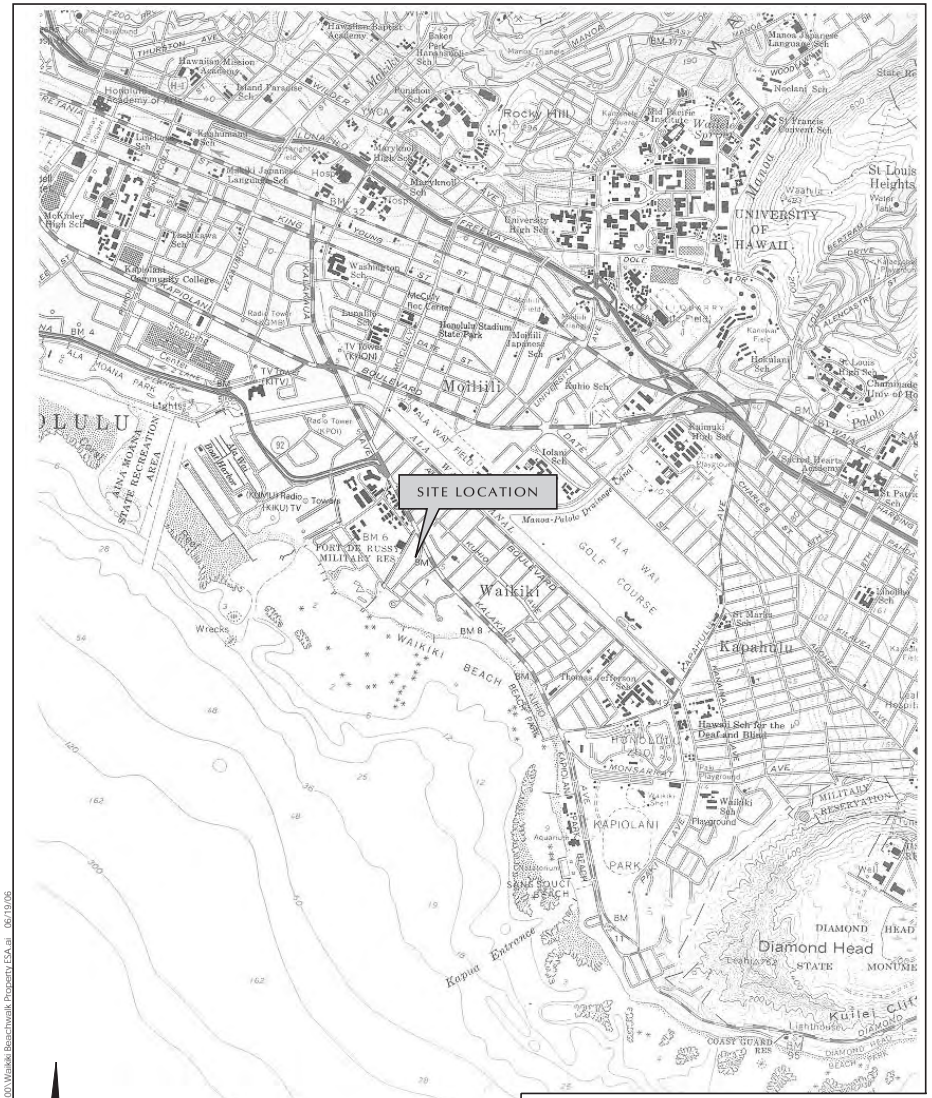
Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Topographic Map dated 1969

Topographic Maps\005-11092-001 Waikiki Beachwalk Property ESA.ai 06/19/06



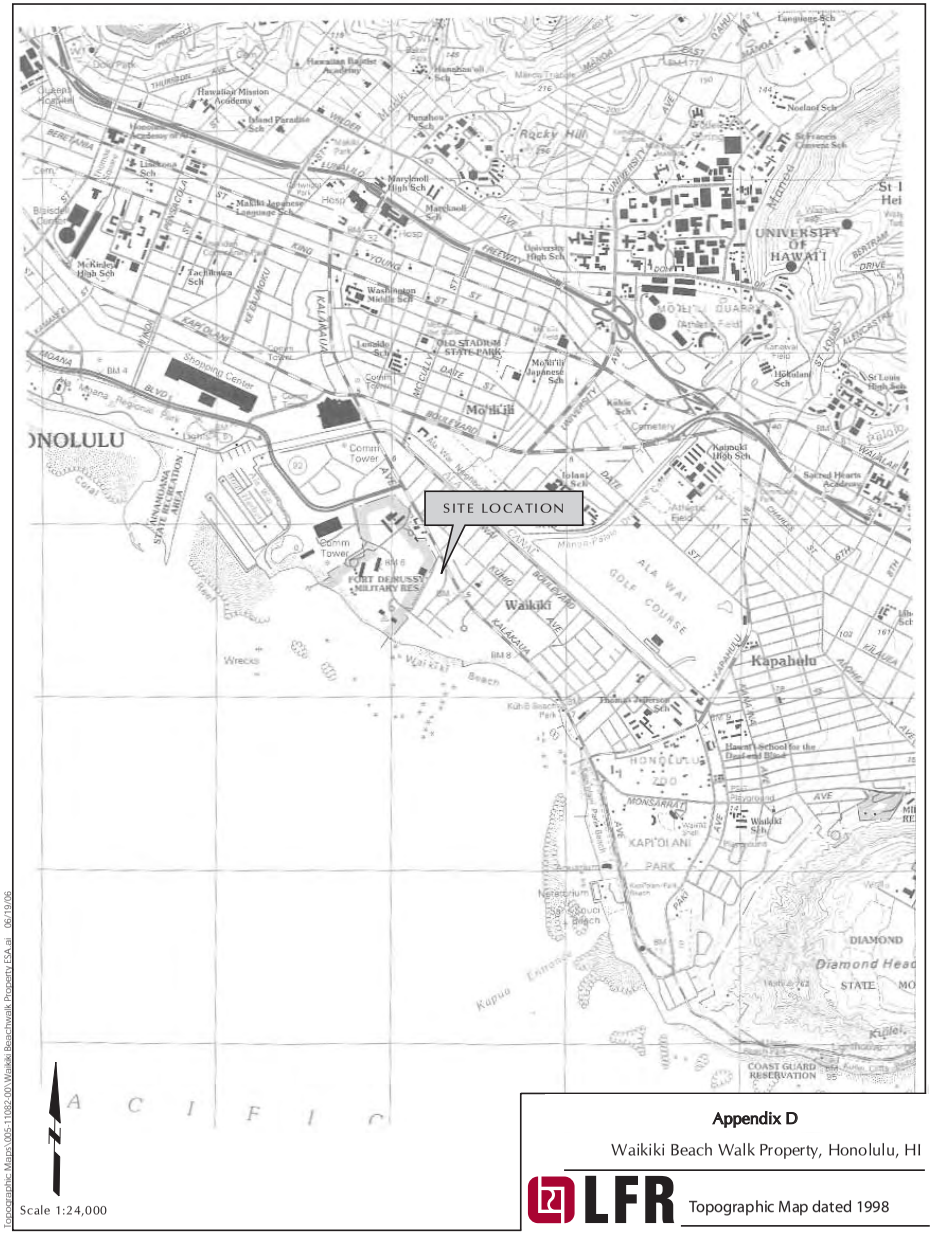
Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Topographic Map dated 1983

Topographic Maps\005-11092-001 Waikiki Beachwalk Property ESA.ai 06/19/06



Topographic Maps\005-11082-00\Waikiki Beachwalk Property ESA.ai 06/19/06

Appendix D

Waikiki Beach Walk Property, Honolulu, HI

LFR

Topographic Map dated 1998

APPENDIX E

Site Photographs

Photograph 1: View of the public easement (parcel :058), which runs in a north/south direction through the center of the lot, facing south.

Photograph 2: View of the catch basin located on the basement level of the parking structure present on parcel: 048.

Photograph 3: View of the cracked concrete in the basement level of the parking lot.

Photograph 4: View of the second floor of the parking structure, facing west.

Photograph 5: View of the northwestern abutting property from the second floor of the parking structure, facing north.

Photograph 6: View of Burberry Plaza, located on the northeastern abutting parcel, facing northeast from the second floor of the parking structure.

Photograph 7: View of parcels :026 and :027 (286 and 270 Beach Walk), facing east.

Photograph 8: View of parcels :026 and :027 and the northern abutting Burberry Plaza taken from Beach Walk, facing south/southwest.

Photograph 9: View of the southern abutting Hawaiian Hotel, taken from Beach Walk, facing northwest.

Photograph 10: View of the U.S. Postal Service building, located west of the Site, beyond Saratoga Road (facing northwest).

APPENDIX F

Qualifications of Environmental Professional

TERI KAZMIERCZAK

Project Geologist

environmental site assessments
environmental compliance
environmental monitoring
subsurface investigations

Ms. Kazmierczak serves as a Project Geologist for LFR Inc.'s (LFR's) Environmental Engineering Department in the Honolulu, Hawaii office. Ms. Kazmierczak's primary responsibilities include the coordination, implementation, compilation, and writing of environmental site assessments (ESAs) to meet the requirements of state and federal regulations. The majority of the ESAs are for financial clients and property transfers. The ESAs are completed in accordance with industry guidelines established by American Society for Testing and Materials (ASTM) Standard E1527-00.

In conducting ESAs, Ms. Kazmierczak is responsible for site inspection, photographic documentation, background and historical research (including interviews and document review), and determinations as to the potential impact of hazardous materials to soil and groundwater at the property site. Ms. Kazmierczak is responsible for mapping surficial geology, designating soil horizons, assessing the vegetation, and determining the overall extent of damage to the environment.

Ms. Kazmierczak also has experience with Phase II subsurface investigations, underground storage tank (UST) closure projects, and National Pollutant Discharge Elimination System (NPDES) permitting and compliance. Additional responsibilities performed by Ms. Kazmierczak include proposal preparation and project budgets for many environmental projects. Ms. Kazmierczak also has been directly involved in researching and evaluating environmental concerns and developing cost estimates for proposed environmental projects.

EDUCATION

Northeastern University: B.S. Environmental Geology, 2001

REPRESENTATIVE EXPERIENCE

- Various Residential/Commercial Properties, Nationwide. Conducted Phase I-Environmental Site Assessments at many properties utilizing information gathered from local town/city offices, state and federal databases, interviews, site walkovers and assessments of adjacent properties. Properties investigated include a metal plating facility, textile manufacturer, gasoline service stations, automotive repair garages, electric switchboard manufacturer, commercial office buildings and cold storage facilities.

- Subsurface Investigations, Multiple Sites, New England and Hawaii. Provided oversight for drilling activities, advancement of soil borings and installation of monitoring wells. Responsible for the collection of soil and groundwater samples. Provided interpretation of analytical results and report production.
- UST Removal and Service Station Closure Activities, Multiple Site, Hawaii. Tasks included subcontractor oversight, collection of appropriate soil and groundwater samples, petroleum impacts remediation, interaction with regulatory agency, and preparation of reports.
- Site Inspections and Storm Water Sampling for NPDES compliance, Hawaii. Tasks included conducting semi-annual inspections to ensure facility compliance with NPDES permitting regulations, annual storm water training, annual storm water sampling, preparation of compliance plans and reports.

REGISTRATION/CERTIFICATION

OSHA Hazardous Waste Operations and Emergency Response 40-Hour Training

Asbestos Inspector Certification

Department of Transportation, Hazardous Materials Transportation Training

Medic First Aid Emergency Responder Trained

PROFESSIONAL HISTORY

LFR Inc., Project Geologist, May 2001 to present

Green Environmental, Staff Geologist, June 1999 to December 1999

APPENDIX G

Interview Documentation

Phase I Environmental Site Assessment

User Provided Information Questionnaire

The ASTM standard for Phase I ESAs requires that the user (usually the client) be responsible for certain information that is included in the Phase I report. The following questions are being provided to you as the "user". You may or may not know specifics about what is being asked.

Name: Masahiko Sugino

Organization: Round One USA Corp.

Subject Site: 270, 285 Beachwalk Ave., 321 Saratoga Rd.
TMK (1) 2-6-3: Parcels 26, 27, 48, 58

Signed: _____

NOTE: We have provided past Phase I reports we are aware of to the Buyer as part of the due diligence materials. Knowledge of the seller is limited to the actual knowledge of Masahiko Sugino, without the obligation to inspect or review company records.

1. Title Records: Do you currently have any title records for the Site?
A preliminary title report was recently prepared by Title Guarantee and will be e-mailed to you.

(If "yes", please mail, fax, or e-mail a copy to LFR)

See above.

2. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? **No**

3. Are you aware of any activity or land use limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? **We are not aware of any such unrecorded items, other than State of Hawaii and County of Honolulu statutes, laws and ordinances that affect all property owners. As for recorded restrictions, we bring your attention to the Joint Development Agreement (JDA) and easements related to the property, and all other items set forth in the title report. Please contact Dave Jurbala at Chaney Brooks with respect to copy of JDA and title report."**

4. Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? **No**

5. Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,

   a) Do you know the past uses of the property? If so, what are they? **At time of acquisition, there was an empty structure on the premises which we had demolished. We do not know for a fact what that structure was used for. Please contact Dave Jurbala at Chaney Brooks for more details.**

   b) Do you know of specific chemicals that are present or once were present at the property? **No**

   c) Do you know of spills or other chemical releases that have taken place at the property? **No**

   d) Do you know of any environmental cleanups that have taken place at the property? **No**

6. Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property? **No**

7. Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property? **No**

8. Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? **No**

9. Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property? **No**

10. Do you believe that the value of the Site that was or is being paid for this property reasonably reflects the fair market value of the property? **Yes** If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? **Not applicable**

LFR

June 28, 2006 LFR 005-11082-01

Mr. Mark Little
Managing Principal
Eight Inc.
32 Merchant Street, Suite 201
Honolulu, HI 96813

Subject: Surface Soil Sampling at 286 Beach Walk, located within the Waikiki District of Honolulu, Hawaii

Dear Mr. Little:

LFR Inc. (LFR) has prepared this letter to describe the results and recommendations related to surface soil sampling performed on June 23, 2006 at 286 Beach Walk, Honolulu, Hawaii ("the Site"). Surface soil sampling was performed for Eight Inc. ("the Client") to obtain data to evaluate whether soil has been impacted by asbestos containing materials (ACM) or lead-based paint (LBP) prior to the completion of a proposed property transaction. The work was performed in accordance with the terms and conditions of the Professional Services Agreement between LFR and Eight Inc. dated June 23, 2006.

Background

During a Phase I Environmental Site Assessment conducted by LFR in June 2006, an issue of environmental concern was identified when reviewing previous environmental reports for the Site. Specifically, a Phase I ESA prepared by Edward K. Noda and Associates in December of 2003, identified suspect ACM within the exterior and interior of Hula Hut restaurant formerly located at the Site. In addition suspect LBP areas were identified on the exterior of the building. Edward K. Noda and Associates recommended testing suspect ACM and LBP areas. It is unknown whether such testing activities were performed. The building was later demolished and it is not known whether soil at the Site has been impacted with ACM or LBP.

Field Investigation

LFR conducted surface soil sampling was conducted on June 23, 2006 to assess the potential presence of ACM and LBP in the soil at the Site. A discussion of field activities associated with this investigation is presented below.

220 South King Street, Suite 1290, Honolulu, Hawaii 96813-4542 · (808) 522-0321 · fax (808) 522-0366 · www.lfr.com
Offices Nationwide

Pre-Field Activities

Prior to commencement of field activities, LFR prepared a site-specific Health and Safety Plan (HSP) for use by LFR employees during surface soil sampling activities as required by the Occupational Safety and Health Administration (OSHA) (29 CFR 1910.120).

Surface Soil Sampling

On June 23, LFR collected 5 surface soil samples from random locations on-Site to adequately assess presence of ACM or LBP within the shallow soil, if any. Prior to sampling at each location, LFR used a shovel to remove six to eight inches of gravel noted to be covering much of the Site. The samples then were collected from 1.0 foot to 1.5 feet below ground surface (bgs) in locations were building material were observed (sample locations B-1 and B-2) or 1.5 feet to 2.0 feet bgs in locations were building materials were not observed (sample locations B-3, B-4, and B-5). Sample locations are presented on Figure 2. Soil at the Site consisted of fill material. The interface between fill material and native soil was not observed at the total depth sampled (2.0 feet bgs). Based on the extensive development on-Site and in the Site vicinity since 1914, it is likely that fill material has been located on-Site since that time.

A portion of each sample was placed in 4-ounce glass jars and transported under chain-of-custody protocol to Oceanic Analytical Laboratory (OAL) in Aiea, Hawaii for analysis of total lead using EPA Method 6010B. An additional portion of each sample was placed in a zip-lock bag and transported under chain-of-custody protocol to White Environmental Consultants, Inc. (WEC) for analysis of asbestos using Polarized Light Microscopy with Dispersion Staining (PLM/DS) in accordance with the Environmental Protection Agency (EPA) Method 600/M4-82-020 per 40 CFR 763, subpart F, App. A. The samples were analyzed on rush 24-hour turn-around-time.

Results

Analytical results for the five soil samples are summarized in Tables 1 and 2 and laboratory reports are presented in Appendix A. Laboratory results indicated that lead was not detected in the five soil samples at levels above the applicable State of Hawaii Department of Health (DOH) Environmental Action level (EAL) for lead. Additionally, laboratory results indicated that less than 1% (<1%) asbestos was detected in the soil collected from sample location B-3 (sample identified as BW-B3-2.0'). Asbestos was not detected in the remaining samples. Lead and asbestos laboratory results are provided as Appendix A and Appendix B, respectively.

Conclusions and Recommendations

Soil sampling analytical results indicated that lead was not identified above the applicable DOH EAL (Table 1) in the five samples collected. Asbestos was detected in one soil sample, BW-B3-2.0 at a concentration of <1.0% asbestos (Table 2). Building materials and suspect ACM were not observed in the soil at this location. According to EPA asbestos regulations per 40 CFR 763 subpart E, ACM are defined as "...any material or product which contains more than 1 percent asbestos." Therefore, materials containing <1% asbestos are not considered asbestos containing. Based on these results, LFR does not recommend additional soil investigation or remediation related to lead or ACM in the soil at this time.

Please call me at (808) 522-0321 if you have any questions or comments regarding this report.

Sincerely,

Terese A. Kazmierczak
Project Geologist

Attachments:

TABLES

1 Lead Sampling Analytical Data
2 Asbestos Sampling Analytical Data

FIGURES

1 Site Vicinity Map
2 Site Plan

APPENDICES

A Total Lead Analytical Laboratory Results
B Asbestos Analytical Laboratory Results

TABLE 1

Lead Sampling Analytical Data

Table 1
Lead Analytical Results
Soil Sampling Letter Report
286 Beach Walk, Honolulu, Hawaii
Eight Inc.

June 23, 2006

Location	Material	Sample ID	Collection Date	Lead (1) (mg/kg) (2)	DOH EAL (3)
Sample location B-1	Soil	BW-B1-1.5 (4)	6/23/2006	23.1	200 mg/kg
Sample location B-2	Soil	BW-B2-1.5	6/23/2006	79.0	
Sample location B-3	Soil	BW-B3-2.0	6/23/2006	104.0	
Sample location B-4	Soil	BW-B4-2.0	6/23/2006	13.3	
Sample location B-5	Soil	BW-B5-2.0	6/23/2006	41.0	

Notes:
(1) Total lead analyzed using EPA Method 6010B
(2) mg/kg = miligrams per kilogram
(3) DOH Environmental Action Levels (EALs) for sites where groundwater is not a current or potential drinking water source and located greater than 150 meters from a surface water body.
(4) BW-B1-1.5 = Beach Walk, collected at location B1 at a depth of 1.5 feet below ground surface

Prepared by: TAK Date: 6/27/2006
Checked by: JMM Date: 6/27/2006

TABLE 2

Asbestos Sampling Analytical Data

Table 2
Asbestos Analytical Results
Soil Sampling Letter Report
286 Beach Walk, Honolulu, Hawaii
Eight Inc.

June 23, 2006

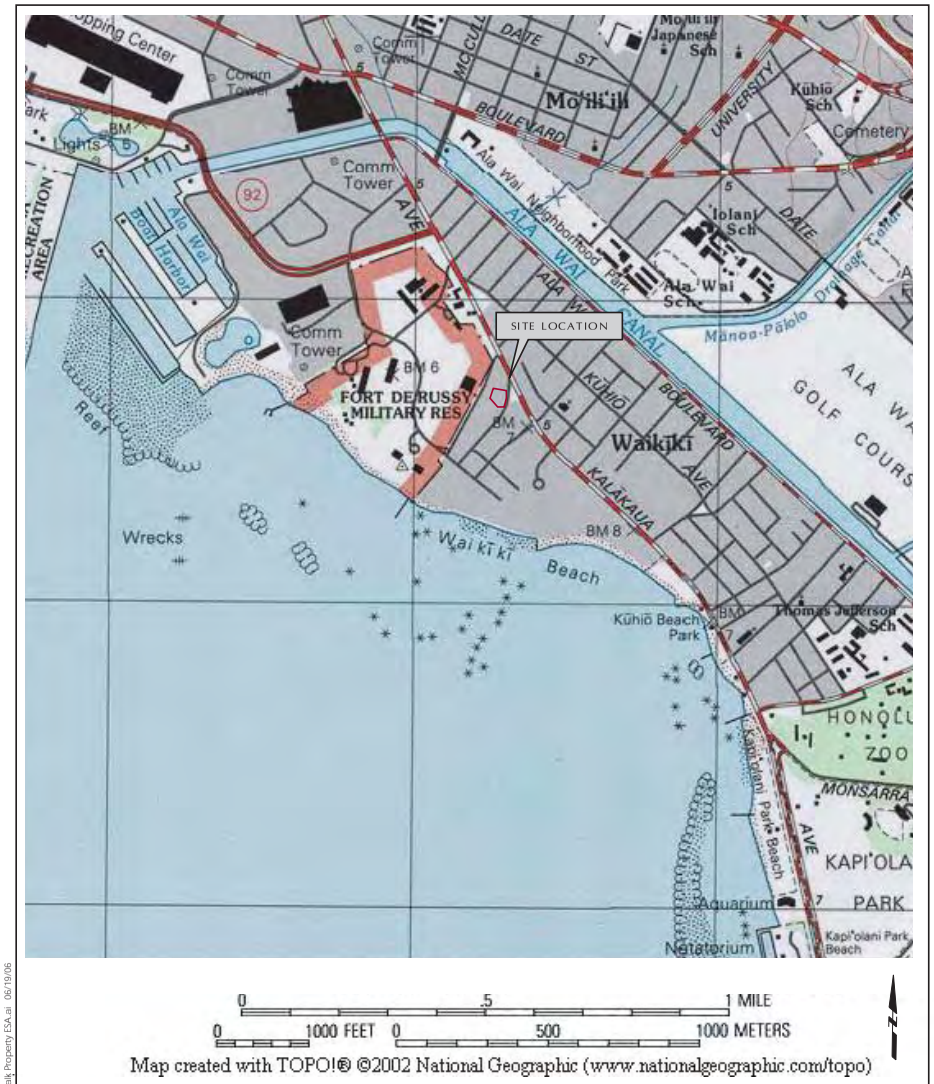
Location	Material	Sample ID	Collection Date	Asbestos (1)
Sample location B-1	Soil	BW-B1-1.5 (3)	6/23/2006	nad (2)
Sample location B-2	Soil	BW-B2-1.5	6/23/2006	nad
Sample location B-3	Soil	BW-B3-2.0	6/23/2006	<1% (4)
Sample location B-4	Soil	BW-B4-2.0	6/23/2006	nad
Sample location B-5	Soil	BW-B5-2.0	6/23/2006	nad

Notes:
(1) Analytical results presented in percent asbestos fibers by volume analyzed using EPA Method 600/R-93/116 (PLM/DS)
(2) nad = no asbestos fibers detected
(3) BW-B1-1.5 = Beach Walk, collected at location B1 at a depth of 1.5 feet below ground surface
(4) <1% = less than one percent

Prepared by: TAK Date: 6/27/2006
Checked by: JMM Date: 6/27/2006

FIGURE 1

Site Vicinity Map



Site Vicinity Map

Waikiki Beach Walk Property, Honolulu, HI

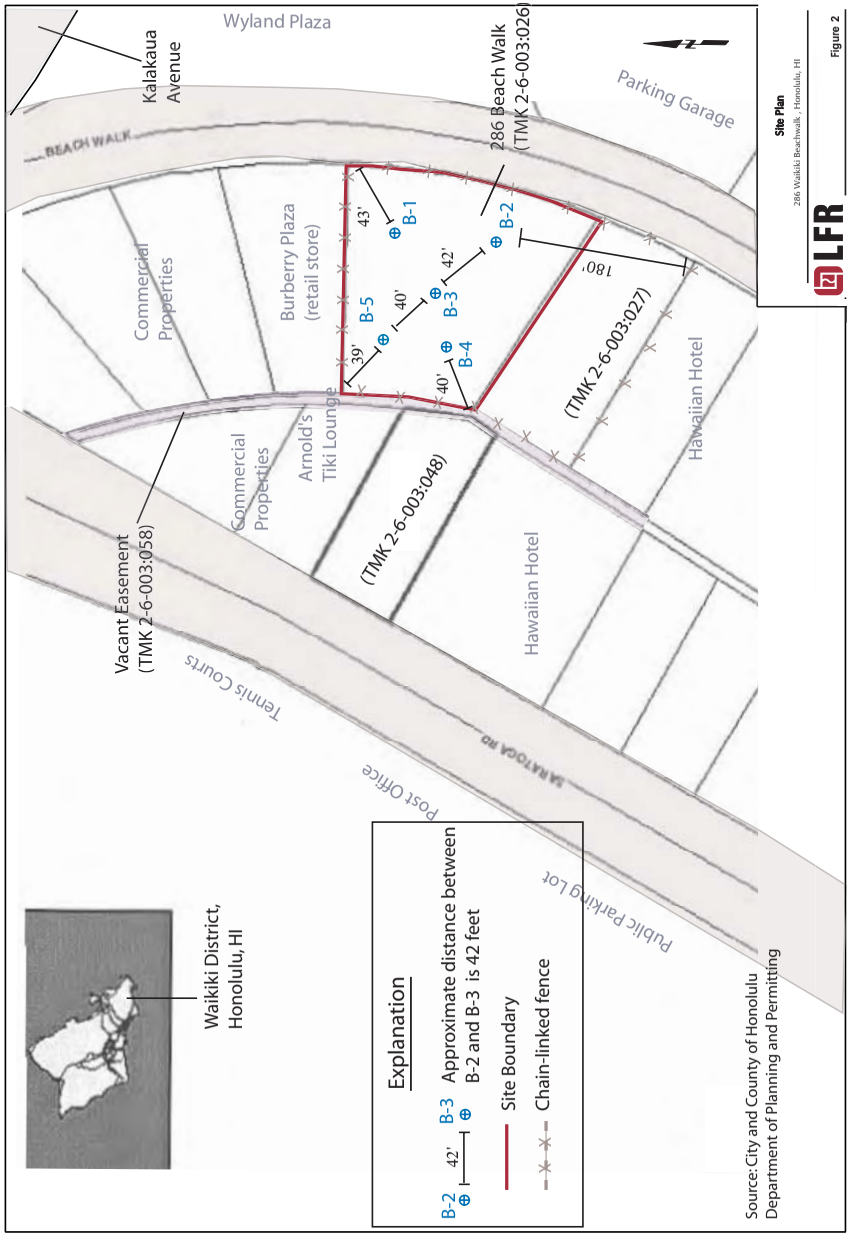
LFR

Figure 1

Site Vicinity Map / Waikiki Beach Walk Property ESA.ai 06/19/06

FIGURE 2

Site Plan



APPENDIX A

Total Lead Analytical Laboratory Results

June 27, 2006

Teri Kazmierczak
Levine Fricke
220 South King Street, Suite 1290
Honolulu, HI 96813
TEL: (808) 522-0321
FAX: (808) 522-0366

RE: Waikiki Beach Walk, 005-11082-01 Work Order No.: 0606169

Dear Teri Kazmierczak:

Oceanic Analytical Laboratory, Inc. received/relogged 5 samples on 6/26/2006 08:30 AM for the analyses presented in the following report.

The total number of pages in the report including this Coverletter, Sample Summary, Case Narrative, Result Summary, QC Summary, Chain of Custody form(s), Relog Request Form and/or any attachment(s) is 12.

All data presented in the following report are relevant only to the samples as received and to the items tested by the laboratory. All data are calculated based on wet weight except where noted in the reporting unit. The report meets all applicable NELAC standards and shall not be reproduced except in full, without the written approval of the laboratory.

There were no problems with the analyses and all data for associated QC met laboratory specifications except where noted in the Case Narrative.

Applicable samples will be stored at no extra charge for a period of 30 days following the final report. Samples will be properly disposed of after 30 days, unless notified otherwise in writing.

If you have any questions regarding these tests results, please feel free to call.

Oceanic Analytical Laboratory, Inc.

Aidan Scott
Laboratory Director

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Work Order Sample Summary

Client: Levine Fricke
Project: Waikiki Beach Walk, 005-11082-01
Work Order: 0606169
Date Received: 6/26/2006

Analytical Report for Samples

Lab Sample ID	Client Sample ID	Collection Date	Sample On Hold
0606169-01A	BW-B1-1.5'	06/23/2006 14:45	☐
0606169-02A	BW-B2-1.5'	06/23/2006 14:55	☐
0606169-03A	BW-B3-2.0'	06/23/2006 15:15	☐
0606169-04A	BW-B4-2.0'	06/23/2006 15:30	☐
0606169-05A	BW-B5-2.0'	06/23/2006 15:45	☐

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Result Summary

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01
Lab ID: 0606169-01A

Client Sample ID: BW-B1-1.5'
Tag Number:
Collection Date: 06/23/2006 14:45
Matrix: SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
ICP METALS-RCRA, TOTAL				**SW3050A**	**SW6010B**			
Lead	***23.1***	9.35	mg/Kg	1	6/26/06	6/27/2006 10:15:26 A	13667	

Qualifiers

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Result Summary

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01
Lab ID: 0606169-02A

Client Sample ID: BW-B2-1.5'
Tag Number:
Collection Date: 06/23/2006 14:55
Matrix: SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
ICP METALS-RCRA, TOTAL					**SW3050A**	**SW6010B**		
Lead	***79.0***	9.62	mg/Kg	1	6/26/06	6/27/2006 10:20:33 A	13667	

Qualifiers
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Result Summary

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01
Lab ID: 0606169-03A

Client Sample ID: BW-B3-2.0'
Tag Number:
Collection Date: 06/23/2006 15:15
Matrix: SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
ICP METALS-RCRA, TOTAL					**SW3050A**	**SW6010B**		
Lead	***104***	10.0	mg/Kg	1	6/26/06	6/27/2006 10:25:39 A	13667	

Qualifiers
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Result Summary

Client:	Levine Fricke	**Client Sample ID:**	BW-B4-2.0'
Work Order:	0606169	**Tag Number:**	
Project:	Waikiki Beach Walk, 005-11082-01	**Collection Date:**	06/23/2006 15:30
Lab ID:	0606169-04A	**Matrix:**	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
ICP METALS-RCRA, TOTAL					**SW3050A**	**SW6010B**		
Lead	***13.3***	9.01	mg/Kg	1	6/26/06	6/27/2006 10:30:45 A	13667	

Qualifiers

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

Result Summary

Client:	Levine Fricke	**Client Sample ID:**	BW-B5-2.0'
Work Order:	0606169	**Tag Number:**	
Project:	Waikiki Beach Walk, 005-11082-01	**Collection Date:**	06/23/2006 15:45
Lab ID:	0606169-05A	**Matrix:**	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
ICP METALS-RCRA, TOTAL					**SW3050A**	**SW6010B**		
Lead	***41.0***	9.90	mg/Kg	1	6/26/06	6/27/2006 10:35:42 A	13667	

Qualifiers

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

QC Summary

Sample Matrix Spike

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01

Sample ID: **0606161-02AMS** Batch ID: **13667** Test Code: **SW6010B** Prep Date: **6/26/2006** Units: **mg/Kg**
Client ID: Run ID: **ICP2_060627A** Analysis Date: **6/27/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD	RPD Limit	Qual	Note
Lead	97.8	9.9	1	99.01	4.389	94.3	80 120	0				

Sample ID: **0606161-02AMSD** Batch ID: **13667** Test Code: **SW6010B** Prep Date: **6/26/2006** Units: **mg/Kg**
Client ID: Run ID: **ICP2_060627A** Analysis Date: **6/27/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD	RPD Limit	Qual	Note
Lead	86.59	9.5	1	95.24	4.389	86.3	80 120	97.8	12.2	20		

Qualifiers
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
%REC - % Recovery
S - Spike Recovery outside established recovery limit
R - RPD outside established recovery limits
DF - Dilution Factor
RPD - Relative Percent Difference

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

QC Summary

Laboratory Control Spike

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01

Sample ID: **LCS-13667** Batch ID: **13667** Test Code: **SW6010B** Prep Date: **6/26/2006** Units: **mg/Kg**
Client ID: Run ID: **ICP2_060626A** Analysis Date: **6/26/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD	RPD Limit	Qual	Note
Lead	91.1	10	1	100	0	91.1	80 120	0				

Qualifiers
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
%REC - % Recovery
S - Spike Recovery outside established recovery limit
R - RPD outside established recovery limits
DF - Dilution Factor
RPD - Relative Percent Difference

Oceanic Analytical Laboratory, Inc.

Date: *Jun 27, 2006*

QC Summary

Method Blank

Client: Levine Fricke
Work Order: 0606169
Project: Waikiki Beach Walk, 005-11082-01

Sample ID: **MB-13667** Batch ID: **13667** Test Code: **SW6010B** Prep Date: **6/26/2006** Units: **mg/Kg**
Client ID: Run ID: **ICP2_060626A** Analysis Date: **6/26/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD RPD Limit	Qual	Note
Lead	ND	10	1								

Qualifiers

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
%REC - % Recovery
S - Spike Recovery outside established recovery limit
R - RPD outside established recovery limits
DF - Dilution Factor
RPD - Relative Percent Difference

Oceanic Analytical Laboratory, Inc.

99-193 Aiea Heights Drive, Suite 121 Aiea, Hawaii 96701-3900
Telephone: (808)486-LABS (5227) Fax: (808)486-2456 E-mail: info@oceanic-labs.com

Chain of Custody / Analysis Request Form

LABORATORY USE ONLY
LAB JOB NO. 0606169
LOCATION
CONTAINERS

Report To: Teri Kazmierczak
Company Name: LFR
Address: 2220 S. King St., Suite 1290
City: Honolulu State: HI ZIP: 96813
Phone: 533-0365 Fax: 533-0366
Sampler: TAK/DCB
# of Samples in Shipment: 5

Project Identification
Job Name: Waikiki Beach Walk
Job Number: 005-11082-01
P.O. Number:
Date of Sample Shipment: 6/23/06
Date Results Needed: 24 Hr TAT

Indicate Analysis Requested: Total Lead (6010)

Item No	Client Sample I.D.	COMP	GRAB	Matrix: Water	Soil	Wastewater	Drinking water	Sludge	Liquid	Solid	Oil	Other	Preservation Method	Sampling Date	Sampling Time	Number of Containers	Laboratory No.
1	BW-B1-1.5'	✓			✓								ice	6/23/06	2:45	1	X 0606169-01
2	BW-B2-1.5'	✓			✓										2:55	1	X -02
3	BW-B3-2.0'	✓			✓										3:15	1	X -03
4	BW-B4-2.0'	✓			✓										3:30	1	X -04
5	BW-B5-2.0'	✓			✓										3:45	1	X -05
6																	~~-06~~
7																	
8																	
9																	
10																	

Released by (Print/Signature)	Date / Time Released	Delivery Method	Received by (Print/Signature)	Company / Agency Affiliation	Date / Time Received	Condition Noted
Teri Kazmierczak	6/23/06 8:30			OAL	6/26/06 870	Rwin
	/				/	wet 1-32

Comments: Results needed by Tuesday 6/27/06

Please Check Box
☐ Dispose by Lab
☐ Return to Client
☐ Archive

Page 1 of 1

White - Oceanic Analytical Yellow - Oceanic Analytical Pink - Client

APPENDIX B

Asbestos Analytical Laboratory Results

WHITE ENVIRONMENTAL CONSULTANTS INC.
197 Sand Island Access Rd. Unit 203, Honolulu, HI 96819-2283 (808) 843-0655
FAX: (808) 843-0657

NVLAP®
LAB CODE: 200350-0

Bulk Sample Analysis for Asbestos

WEC Project #: H06-752
Client Project#:

Report #: 15067
Report By: Mercado, J.
Report Date: 6/26/2006

Client: **LFR, Inc.**
194 Forbes Rd.
Braintree, MA 02184-2617

Collection Date: 6/23/2006
Collection By: Client
TAT: 24 Hour
Analysis By: K.Wells
Analysis Date: 6/26/2006
Received By: Mercado
Received Date: 6/26/2006

 # Samples: 5 **# Layers:** 5

Project Name/Location: Wakiki Beach Walk
Building: Honolulu, Hawaii

Client ID#	WEC ID#	Location	Material	Layer
BW-B1-1.5	HB06-4071	286 Beach Walk	Soil	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	2%

% Other Fibrous Materials: 2%
% Non-Fibrous Materials: 98%

Homo-genous: No
Color: Brown

Client ID#	WEC ID#	Location	Material	Layer
BW-B2-1.5	HB06-4072	286 Beach Walk	Soil	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	3%

% Other Fibrous Materials: 3%
% Non-Fibrous Materials: 97%

Homo-genous: No
Color: Brown

Client ID#	WEC ID#	Location	Material	Layer
BW-B3-2.0	HB06-4073	286 Beach Walk	Soil	1 of 1

ASBESTOS

Chrysotile	<1%

Other Fibrous Materials

Cellulose	2%

% Asbestos: <1%
% Other Fibrous Materials: 2%
% Non-Fibrous Materials: 98%

Homo-genous: No
Color: Brown

Client ID#	WEC ID#	Location	Material	Layer
BW-B4-2.0	HB06-4074	286 Beach Walk	Soil	1 of 1

ASBESTOS

None Detected

Other Fibrous Materials

Cellulose	2%

% Other Fibrous Materials: 2%
% Non-Fibrous Materials: 98%

Homo-genous: No
Color: Brown

WHITE ENVIRONMENTAL CONSULTANTS INC.
197 Sand Island Access Rd. Unit 203, Honolulu, HI 96819-2283 (808) 843-0655
FAX: (808) 843-0657

NVLAP
LAB CODE: 200350-0

Bulk Sample Analysis for Asbestos

WEC Project #: H06-752
Client Project#:

Report #: 15067
Report By: Mercado, J.
Report Date: 6/26/2006

Client ID#	WEC ID#	Location	Material	Layer
BW-B5-2.0	HB06-4075	286 Beach Walk	Soil	1 of 1

ASBESTOS

None Detected

Homogenous	Color
No	Brown

% Other Fibrous Materials: 2%
% Non-Fibrous Materials: 98%

Other Fibrous Materials	
Cellulose	2%

Kanokthip Wells
Kanokthip Wells, Lab Analyst — **Date** 6/26/2006

Emily Pugh, Technical Reviewer — **Date** 6/26/2006

Analysis performed by EPA Method 600/R-93/116 with dispersion staining microscopy. All quantities reported are based on visual estimation by PLM, unless point-counting method is requested and noted for the sample. Test report relates only to items tested and must not be used by client to claim product endorsement by NVLAP or any agency of the U.S. Government. Test reports must not be reproduced without the approval of WEC Inc., and are subject to WEC Inc. General Terms and Conditions (see reverse). White Environmental Consultants, Inc. is an NVLAP accredited laboratory for bulk asbestos analysis. (Lab# 200350-0)

WHITE ENVIRONMENTAL CONSULTANTS INC.
197 Sand Island Access Road suite 203, Honolulu, HI 96819-2283, Phone: 808-843-0655, Fax: 808-843-0657

HPU 752

WEC Project Number:

Client Name / Billing Information: Teri Kazmierczak, LFR, Inc
ph: (808) 532-0365
fax: (808) 532-0360 *email:* Teri.kazmierczak@lfr.com

Client Project Name / Location: Waikiki Beach walk, Honolulu, HI
Client Project Number:

Relinquished by: TAK
Received by: JM
Date Relinquished: 6/26/06
Received Date: 6/26/06
Time: 9:15

Please write a sample description in space provided (i.e. paint chips, concrete, etc.)

Circle requested TAT: RUSH 24hr 48hr 72hr 5day

Place an 'X' under the requested analysis per sample received.

	Client Sample Number	Collection Date	Sample Description	PCM NIOSH 7400A	PLM EPA 600/R93/116	TEM	Pb Air NIOSH 7082	* Pb Wipe HUD 14.2	Pb Paint SW 846-7420	Pb Soil SW 846-3050B	TCLP SW 846-1311	Non-Viable Mold	Viable Mold	8 RCRA Metal TCLP	PCB	Arsenic Air, Bulk, TCLP	Other	Acceptable/Not Acceptable (A/NA)
1	BW-B1-1.5'	6/23/06	Soil B-1		X													
2	BW-B2-1.5'		B-2		X													
3	BW-B3-2.0'		B-3		X													
4	BW-B4-2.0'		B-4		X													
5	BW-B5-2.0		B-5		X													
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		

*All samples submitted to WEC Inc. shall be sealed in the appropriate container, cartridge, or collection vessel; shall be free of exterior dust or contamination; and shall pose no immediate or potential hazard to personnel during sample receiving and processing. When applicable, please include field blanks as required by sampling method. Wipe samples must meet ASTM requirements before analysis is run. WEC cannot determine whether wipe samples meet ASTM requirements.
*Document any correspondence with client regarding sample acceptance criteria or other aspects of analytical request on an attached sheet.

Form 403, Sample Chain of Custody
Issued 01/01/2001
Page 1 of 1

QAC Initials E. Pugh
Revision H, 11/21/2005

APPENDIX D

Traffic Impact Report for the
280 Beach Walk Waikīkī Development

FINAL

Traffic Impact Report

280 Beach Walk Waikiki

Prepared for:
Eight Inc.

Prepared by:
Wilson Okamoto Corporation

February 2007

TRAFFIC IMPACT REPORT

FOR THE PROPOSED

280 BEACH WALK WAIKIKI DEVELOPMENT

Prepared for:
Eight Inc.
55 Merchant St., Suite 1420
Honolulu, HI 96813

Prepared by:

Wilson Okamoto Corporation
1907 S. Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC #7657-01

February 2007

TABLE OF CONTENTS

		Page
I.	Introduction	1
	A. Purpose of Study	1
	B. Scope of Study	1
II.	Project Description	1
	A. Location	1
	B. Project Characteristics	1
III.	Area Roadway System	3
IV.	Existing Traffic Conditions	5
V.	Projected Traffic Conditions	7
	A. General	7
	B. Total Traffic Volumes Without Project	7
	C. Trip Generation	11
	D. Trip Distribution	13
	E. Total Traffic Volumes With Project	16
VI.	Traffic Impact Analysis	16
VII.	Recommendations	19
VIII.	Conclusion	20

LIST OF FIGURES

FIGURE 1	Location Map and Vicinity Map
FIGURE 2	Project Site Plan
FIGURE 3	Existing Weekday Peak Hour Traffic Conditions
FIGURE 4	Existing Saturday Peak Hour Traffic Conditions
FIGURE 5	Year 2010 Weekday PM Peak Hour of Traffic Without Project
FIGURE 6	Year 2010 Saturday Evening Peak Hour of Traffic Without Project
FIGURE 7	Distribution of Site-Generated Traffic Weekday PM Peak Hour of Traffic
FIGURE 8	Distribution of Site-Generated Traffic Saturday Evening Peak Hour of Traffic
FIGURE 9	Year 2010 Weekday PM Peak Hour of Traffic With Project
FIGURE 10	Year 2010 Saturday Evening Peak Hour of Traffic With Project

LIST OF APPENDICIES

APPENDIX A	Level of Service Definitions
APPENDIX B	Capacity Analysis Calculations Projected Year 2010 Peak Hour Traffic Analysis With Project

I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to identify and assess the traffic impacts resulting from the proposed 280 Beach Walk Waikiki development on the island of Oahu. The project site for the proposed retail development is located adjacent to Beach Walk south of Kalakaua Avenue.

B. Scope of Study

This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project and surrounding roadway network.
2. Summary of existing and future without project traffic conditions.
3. Development of trip generation characteristics for the proposed project.
4. Superimposition of site-generated traffic over future traffic conditions.
5. Identification of traffic impacts resulting from the proposed project.
6. Recommendations of improvements, if appropriate, to mitigate the traffic impacts resulting from the proposed project.

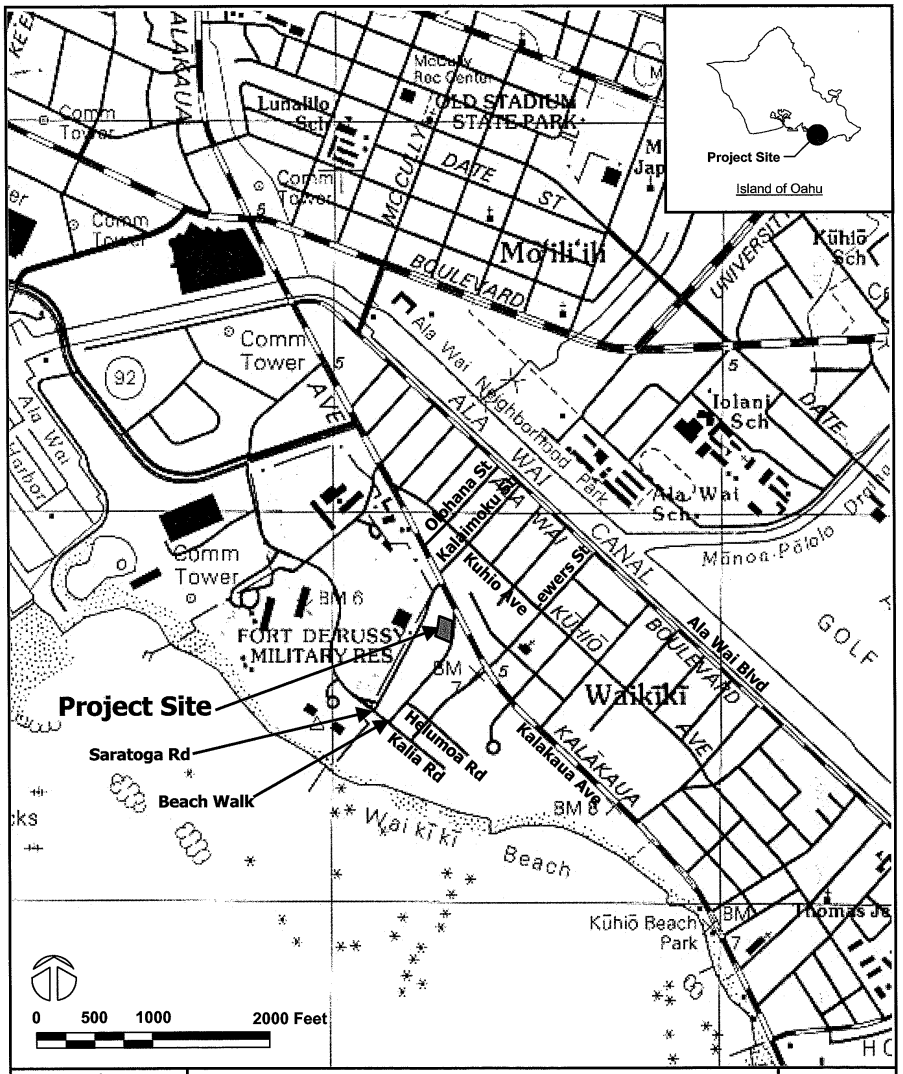
II. PROJECT DESCRIPTION

A. Location

The proposed 280 Beach Walk Waikiki development will be located in Waikiki on the island of Oahu (see Figure 1) and is further identified as Tax Map Keys: 2-6-03: 26, 27, and 58. The project site is bounded by other retail establishments to the north, Beach Walk to the east, a hotel to the south, and a parking structure to the west. Vehicular access to the project site will be provided via an existing driveway off Saratoga Road serving the parking structure to the west.

B. Project Characteristics

The proposed 280 Beach Walk development will be located on an existing vacant lot adjacent to Beach Walk south of Kalakaua Avenue. The proposed project, which is expected to be completed and occupied by the Year 2008, will entail the construction of a two-story building with approximately 10,225 square feet of retail



WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

280 BEACH WALK WAIKIKI

LOCATION MAP AND VICINITY MAP

FIGURE 1

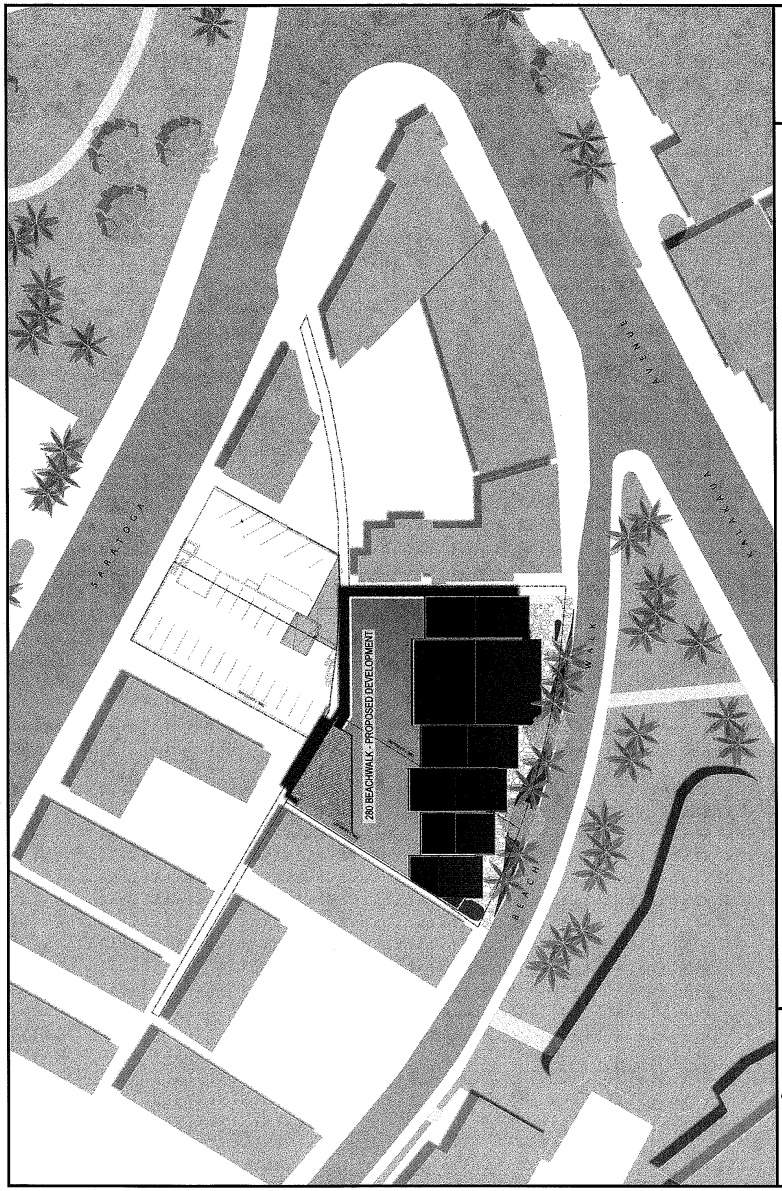
space and an approximately 22,550 square foot restaurant. In addition, the finished floor elevation of the new building will be approximately 2 feet higher than the existing lot elevations to ensure that the building is outside of the flood zone. Consequently, the existing sidewalk along Beach Walk will be realigned to accommodate the change in elevation resulting in a landscaped, meandering sidewalk similar to other developments in the vicinity. There are no new parking areas proposed for the development since parking stalls for employees and visitors will be provided within the existing parking structure located east of the project site. As such, vehicular access to the project site will be provided via the existing driveway for this structure off Saratoga Road.

III. AREA ROADWAY SYSTEM

The area roadway system in the vicinity of the proposed project site is comprised of a number of north-south oriented connector roadways which include Beach Walk, Saratoga Road, Kalaimoku Street, Olohana Street, Lewers Street, and Royal Hawaiian Avenue, and east-west oriented roadways which include three smaller connector roadways, Kalia Road, Helumoa Street, and Don Ho Lane, and three major arterial roadways, Kalakaua Avenue, Kuhio Avenue, and Ala Wai Boulevard.

Extending between Kalia Road and Kalakaua Avenue, Beach Walk is a one-lane, one-way (southbound) roadway and Saratoga Road is generally a two-lane, two-way roadway. At Kalakaua Avenue, Saratoga Road becomes Kalaimoku Street, a two-lane, one-way roadway that serves as the northbound half of a couplet system between Kalakaua Avenue and Ala Wai Boulevard. The other half of that couplet is comprised of Olohana Street which is a two-lane, one-way (southbound) roadway. Located east of these roadways, Lewers Street originates at Kalia Road as a two-lane, one-way (southbound) roadway and continues north on to Don Ho Lane where it converts to a four-lane, two-way roadway until Kalakaua Avenue. North of Kalakaua Avenue, Lewers Street continues as a two-lane, one-way (northbound) roadway until its terminus at Ala Wai Boulevard.

Kalia Road starts as a two-lane, two-way roadway east of Lewers Street and converts to a two-lane, one-way (westbound) roadway between Lewers Street and Saratoga Road. Just



WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

280 BEACH WALK WAIKIKI

PROJECT SITE PLAN

FIGURE 2

east of Saratoga Road, Kalia Road once again becomes a predominantly two-lane, two-way roadway until its terminus at Ala Moana Boulevard. North of Kalia Road, Helumoa Street is a one-lane, one-way (eastbound) roadway between Beach Walk and Lewers Street and a two-lane, two-way roadway east of Lewers Street while Don Ho Lane is a two-lane, two-way roadway between Lewers Street and Royal Hawaiian Avenue. Further north, Kalakaua Avenue is a generally four-lane, one-way roadway that serves as the eastbound half of a couplet system providing access through Waikiki with Ala Wai Boulevard, a predominantly three-lane, one-way (westbound) roadway with a 24-hour parking lane located on the north side of the roadway. Kuhio Avenue, generally a four-lane, two-way roadway, runs parallel to Kalakaua Avenue approximately midway between the couplet and serves as a secondary access roadway through Waikiki.

IV. EXISTING TRAFFIC CONDITIONS

The proposed project will be located in close proximity to the proposed Waikiki Beach Walk development, Phase 1 of which is currently under construction. The proposed project includes the renovation of the Reef Towers, Waikiki Village and Tower, and Reef on the Beach, and the construction of a new retail complex along Lewers Street and a new condominium/hotel along Kalia Road between Saratoga Road and Beach Walk. Due to the size and complexity of the Waikiki Beach Walk project in comparison to the proposed 280 Beach Walk Waikiki retail development, the existing conditions presented in this report are derived from the Traffic Impact Analysis Report (TIAR) for the Waikiki Beach Walk development prepared by Wilbur Smith Associates in October 2004 which detailed the existing traffic volumes and conditions for the surrounding roadway network. According to the overall TIAR, traffic operations in the vicinity were generally acceptable during all of the peak periods with the exception of the study intersections along Lewers Street. Heavy pedestrian traffic streams along this roadway influence the levels of service and vehicular queuing at these intersections resulting in low levels of service. However, the TIAR indicated that the capacity analysis performed for the study overestimated the existing delays at those intersections and that field observations indicated that the actual delays were significantly shorter. The existing weekday and Saturday peak hour traffic conditions presented in the TIAR are included as Figures 3 and 4.

Figure 3: Existing Weekday Peak Hour Traffic Conditions

Intersection And Traffic Movement	Morning Peak Hour			Afternoon Peak Hour		
	V/C	ADPV	LOS	V/C	ADPV	LOS
Kalakaua Ave.-Ala Moana Blvd.-Niu St.	0.55	16.0	B	0.61	17.0	B
Kalakaua Ave.-Saratoga Rd.	0.56	22.4	C	0.67	23.7	C
Kalakaua Ave.-Lewers	0.45	10.3	B	0.65	14.9	B
Eastbound Thru/Left	0.59	9.9	A	0.77	13.1	B
Eastbound Right	0.47	10.1	B	0.71	19.7	B
Northbound Thru	0.10	23.6	C	0.51	37.7	D
Kalakaua Ave.-Royal Hawaiian Ave.	0.42	12.9	B	0.51	13.8	B
Lewers St.-Kuhio Ave.		NA		0.34	13.9	B
Lewers St.-Don Ho Ln.						
Westbound Left	0.52	36.7	E	2.89	984.5	F
Westbound Right	0.12	14/1	B	1.37	261.4	F
Lewers St.-Helumoa Rd.						
Eastbound	0.10	11.7	B	0.08	11.6	B
Westbound	0.31	22.2	C	0.17	15.0	C
Lewers St.-Kalia Rd. Southbound	0.35	12.0	B	0.69	21.2	C
Kalia Rd.-Beachwalk Southbound	0.30	4.1	A	0.44	18.4	C
Kalia Rd.-Saratoga Rd.	NA	7.6	A	NA	8.9	B
Kalia Rd.-Rainbow Dr.	0.36	9.7	A	0.54	11.0	B
Ala Moana Blvd.-Kalia Rd.-Ena Rd.	0.72	51.8	D	0.96	53.2	D
Kuhio Ave.-Kalaimoku St.		NA		0.34	10.3	B
Kuhio Ave.-Olohana St.		NA		0.36	12.4	B

V/C = Ratio of the traffic volume to the theoretical capacity of the intersection.
ADPV = Average delay per vehicle, in seconds.
LOS = Level of service.
* = Not calculated since conditions outside normal range and represent highly unstable traffic flow.
* = Not applicable or Not Available

Wilbur Smith Associates, October 7, 2004

Figure 4: Existing Saturday Peak Hour Traffic Conditions

Intersection and Traffic Movement	Saturday Afternoon Peak Hour			Saturday Early Evening Peak Hour			Saturday Night Peak Hour		
	V/C	ADPV	LOS	V/C	ADPV	LOS	V/C	ADPV	LOS
Kalakaua Ave.-Saratoga Rd.	0.59	22.3	C	0.60	22.6	C	0.53	21.9	C
Kalakaua Ave.-Lewers	0.61	13.5	B	0.82	21.4	C	0.62	13.9	B
Eastbound Thru/Left	0.67	10.9	B	0.68	11.2	B	0.67	11.0	B
Eastbound Right	0.74	21.2	C	1.02	62.7	E	0.71	19.7	B
Northbound Thru	0.31	26.3	C	0.31	26.3	C	0.40	27.9	C
Lewers St.-Don Ho Ln									
Westbound Left	3.21	*	F	3.07	*	F	4.71	*	F
Westbound Right	1.16	181.7	F	1.23	207.0	F	1.41	275.6	F
Lewers-Helumoa Rd									
Eastbound	0.04	11.2	B	0.07	11.7	B	0.04	11.6	B
Westbound	0.05	12.6	B	0.07	13.4	B	0.02	13.5	B
Lewers St.-Kalia Rd. Southbound	0.65	15.6	C	0.75	25.7	D	0.66	19.3	C
Kalia Rd.-Beachwalk Southbound	0.36	4.4	A	0.33	14.9	B	0.35	16.0	C
Kalia Rd.-Saratoga Rd.	NA	8.3	A	NA	8.0	A	NA	7.9	A

V/C = Ratio of the traffic volume to the theoretical capacity of the intersection.
ADPV = Average delay per vehicle, in seconds.
LOS = Level of service.
* = Not calculated since conditions outside normal range and represent highly unstable traffic flow.

Wilbur Smith Associates, October 7, 2004

V. PROJECTED TRAFFIC CONDITIONS

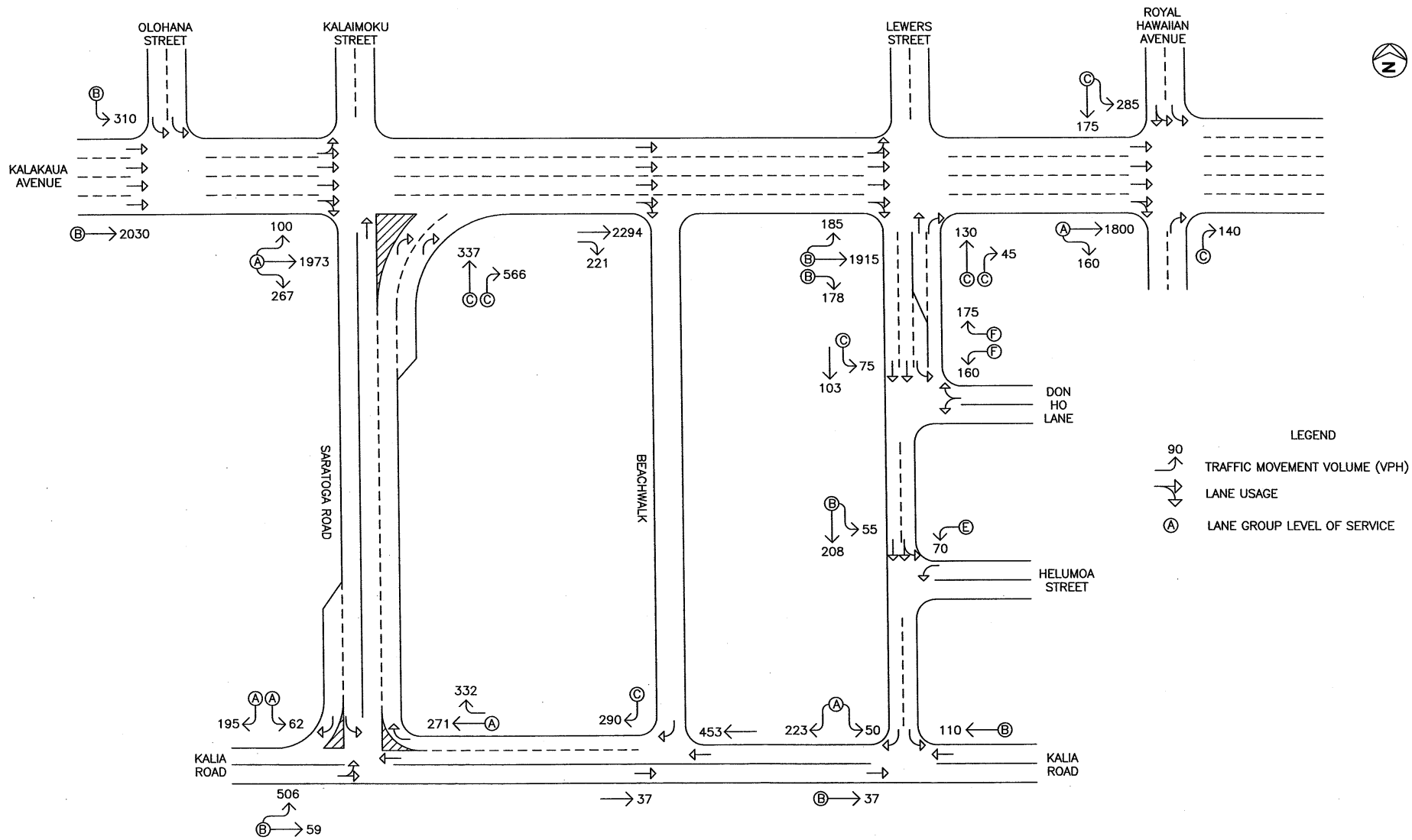
A. General

As previously mentioned, the 280 Beach Walk Waikiki retail project is located in close proximity to the Waikiki Beach Walk development. As such, the projected conditions reflected in this report are associated with the completion year of the Waikiki Beach Walk development rather than the 280 Beach Walk Waikiki project to assess the impact of the retail project. As such, existing traffic conditions were projected to the Year 2010 to determine the impact of the proposed project.

B. Total Traffic Volumes Without Project

The traffic assessment performed for the Year 2010 conditions without the 280 Beach Walk Waikiki development was based upon the projections included in the TIAR for the Waikiki Beach Walk development prepared by Wilbur Smith Associates in October 2004 and the supplemental "Traffic Impact Report for the Proposed Beach Walk Waikiki" prepared in January 2006, and utilizing procedures presented in the "Highway Capacity Manual", Transportation Research Board, 2000. The Year 2010 without project conditions reflect anticipated traffic increases due to regional growth, other projects in the area such as the completion of the Lagoon Tower, Kalia Tower, and Waikikian time-share development at the Hilton Hawaiian Village, and the construction of the 2100 Kalakaua development, and the Waikiki Beach Walk development which includes the conversion of Kalia Road to a two-way roadway between Saratoga Road and Lewers Street, and intersection modifications at the intersection of Kalia Road and Saratoga Road.

The projected Year 2010 weekday PM and Saturday evening peak hour traffic operating conditions in the project vicinity without the Waikiki Beach Walk development are shown in Figures 5 and 6, and detailed in Table 1. The assessment, which was based on the concept of Level of Service (LOS) and performed by the "Synchro" software, developed by Trafficware of Albany, California, focused on the weekday afternoon and Saturday evening peak hours since these periods represent the hours during which vehicular and pedestrian traffic volumes are the highest. LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are

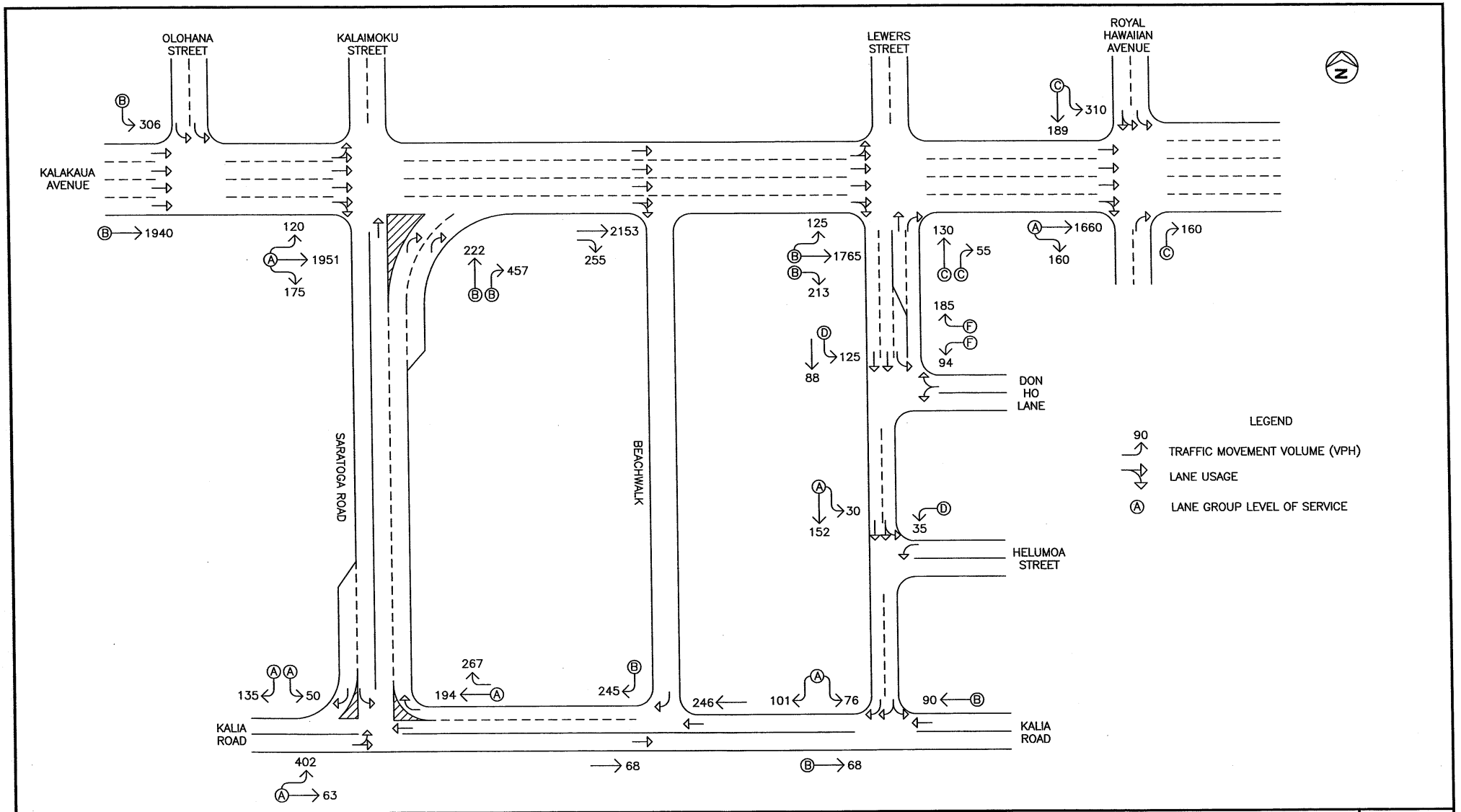


WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

YEAR 2010 WEEKDAY PM PEAK HOUR OF TRAFFIC WITHOUT PROJECT

FIGURE 5



WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

YEAR 2010 SATURDAY EVENING PEAK HOUR OF TRAFFIC WITHOUT PROJECT

FIGURE 6

defined by LOS "A" through "F". LOS "A" represents ideal or free-flow traffic operating conditions and LOS "F" represents unacceptable or potentially congested traffic operating conditions. LOS "B", "C", "D", and "E" represent the intermediate traffic operational characteristics between the two extremes of LOS "A" and LOS "F". The LOS definitions are included in Appendix A.

Table 1: Year 2010 Peak Hour Traffic Conditions Without Project

Intersection	Critical Movement		Weekday PM	Saturday Evening
Kalakaua Ave/ Olohana St	Eastbound	TH	B	B
	Southbound	LT	B	B
Kalakaua Ave/ Kalaimoku St/ Saratoga Rd	Eastbound	LT-TH-RT	A	A
	Northbound	TH	C	B
		RT	C	B
Kalakaua Ave/ Lewers St	Eastbound	LT-TH	B	B
		RT*	B	B
	Northbound	TH	C	C
		RT	C	C
Kalakaua Ave/ Royal Hawaiian Ave	Eastbound	TH-RT	A	A
	Northbound	RT	C	C
	Southbound	LT-TH	C	C
Don Ho Ln/ Lewers St	Westbound	LT	F	F
		RT	F	F
	Southbound	LT	C	D
Helumoa St/ Lewers St	Westbound	LT	E	D
	Southbound	LT-TH	B	A
Kalia Rd/ Saratoga Rd	Eastbound	LT-TH	B	A
	Westbound	TH	A	A
	Southbound	LT	A	A
		RT	A	A
Kalia Rd/Beach Walk	Southbound	RT	C	B

*Although lane is designated as a shared through and right-turn lane, most through vehicles utilize other lanes due to the high turning volumes.

Table 1: Year 2010 Peak Hour Traffic Conditions Without Project (Cont'd)

Intersection	Critical Movement		Weekday PM	Saturday Evening
Kalia Rd/ Lewers St	Eastbound	TH	B	B
	Westbound	TH	B	B
	Southbound	LT-RT	A	A

Under Year 2010 conditions without the 280 Beach Walk Waikiki retail development, traffic operations in the project vicinity are expected to deteriorate from existing conditions during the weekday afternoon and Saturday evening peak periods due to the development of other projects in the vicinity. However, the conversion of Kalia Road to a two-way roadway and the redistribution of traffic in the vicinity as a result of the Waikiki Beach Walk development are expected to alleviate projected conditions.

C. Trip Generation

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation, 7th Edition," 2003. The ITE trip generation rates are developed empirically by correlating the vehicle trip generation data with various land use characteristics such as the number of vehicle trips generated per 1,000 square feet of development. For the purpose of this report, 10% of the total daily trip ends for Saturday were assumed to occur during the evening peak period. Table 2 summarizes the project site trip generation characteristics applied to the weekday PM and Saturday evening peak hours of traffic.

Table 2: Peak Hour Trip Generation

SPECIALTY RETAIL CENTER		
INDEPENDENT VARIABLE: 1,000 sf of development = 10.225		
		PROJECTED TRIP ENDS
WEEKDAY PM PEAK	ENTER	20
	EXIT	26
	TOTAL	46
SATURDAY EVENING PEAK	ENTER	22
	EXIT	21
	TOTAL	43
HIGH TURNOVER SIT-DOWN RESTAURANT		
INDEPENDENT VARIABLE: 1,000 sf of development = 22.55		
		PROJECTED TRIP ENDS
WEEKDAY PM PEAK	ENTER	150
	EXIT	96
	TOTAL	246
SATURDAY EVENING PEAK	ENTER	179
	EXIT	178
	TOTAL	357
TOTALS		
		PROJECTED TRIP ENDS
WEEKDAY PM PEAK	ENTER	170
	EXIT	122
	TOTAL	292
SATURDAY EVENING PEAK	ENTER	201
	EXIT	199
	TOTAL	400

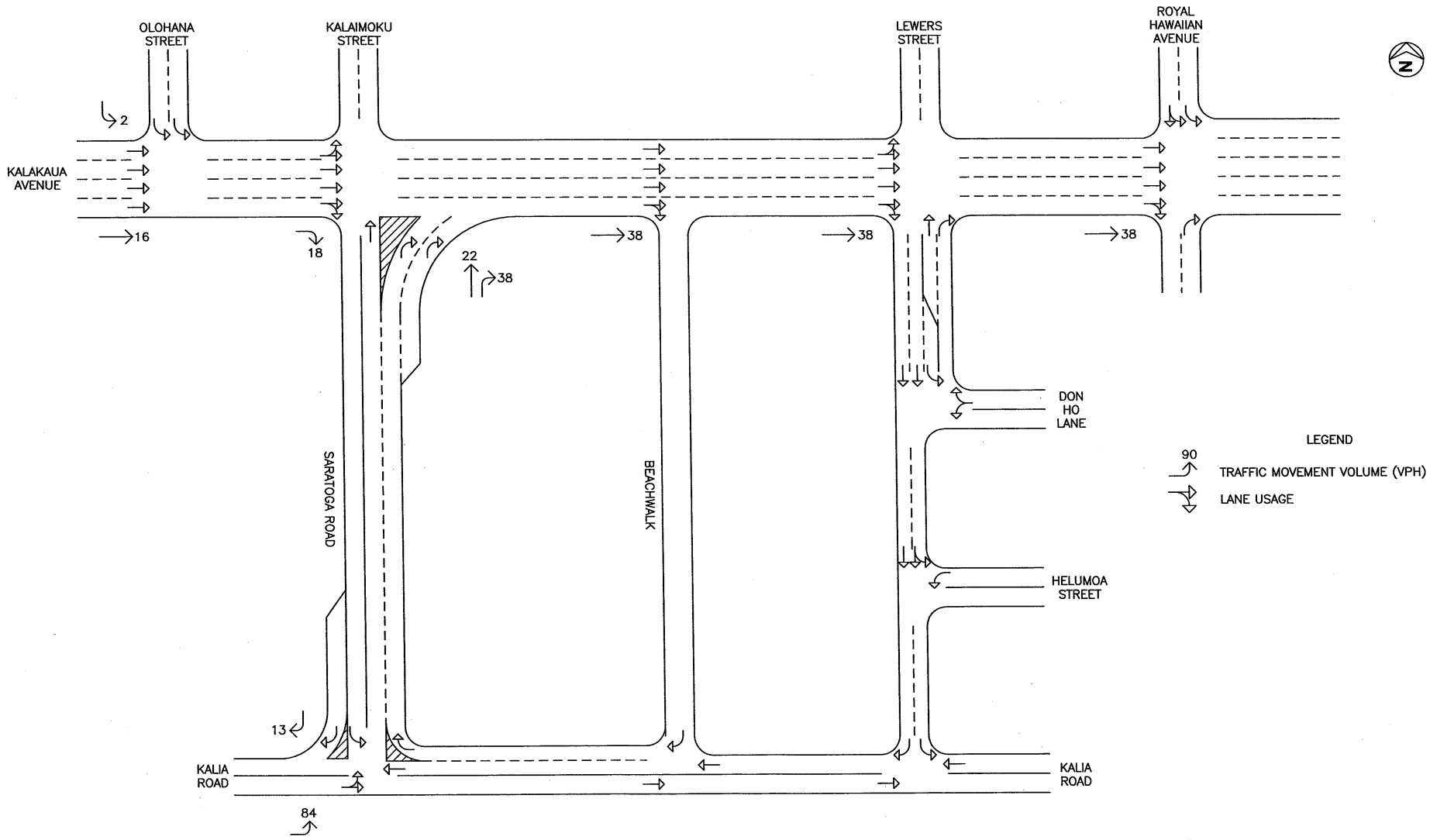
Since the proposed development will be located in an area with limited parking, high volumes of pedestrian traffic, and a high density of attractive destinations, a high number of trips generated by the proposed development may be considered walking trips. As such, for the purpose of this report, 40% of the total number of trips generated by the proposed development are conservatively assumed to represent pedestrian trips during both the weekday PM and Saturday PM peak hours of traffic. Table 3 summarizes the adjusted project trip generation totals for the proposed 280 Beachwalk development.

Table 3: Adjusted Peak Hour Trip Generation Totals

TOTALS		
		PROJECTED TRIP ENDS
WEEKDAY PM PEAK	ENTER	102
	EXIT	73
	TOTAL	175
SATURDAY EVENING PEAK	ENTER	121
	EXIT	119
	TOTAL	240

D. Trip Distribution

Figures 7 and 8 show the distribution of site-generated traffic during the AM and PM peak periods. Vehicular access to the project site will be provided via an existing driveway along Saratoga Road that serves a parking structure to the west. The directional distribution of vehicles at this driveway was based upon the prevalent directional distribution of traffic along Saratoga Road. As such, 82.7% of the vehicles were assumed to be traveling northbound during the weekday PM peak period and 17.3% were assumed to be traveling southbound. During the Saturday evening peak period, 95.4% were assumed to be traveling northbound and 4.6% were assumed to be traveling southbound. All southbound entering vehicles were assumed to turn right from Kalakaua Avenue onto Saratoga Road and the directional distribution at the intersection of Kalakaua Avenue with Olohana Street was assumed to remain similar to existing conditions. All southbound exiting and northbound entering vehicles were assumed to be traveling to and from Kalia Road west of Saratoga Road while the directional distribution of all northbound exiting vehicles was assumed to remain similar to existing conditions at the intersection of Kalakaua Avenue with Saratoga Road and Kalaimoku Street. All right-turning vehicles at that intersection were assumed to travel along Kalakaua Avenue through the remaining study intersections to destinations outside the study area.

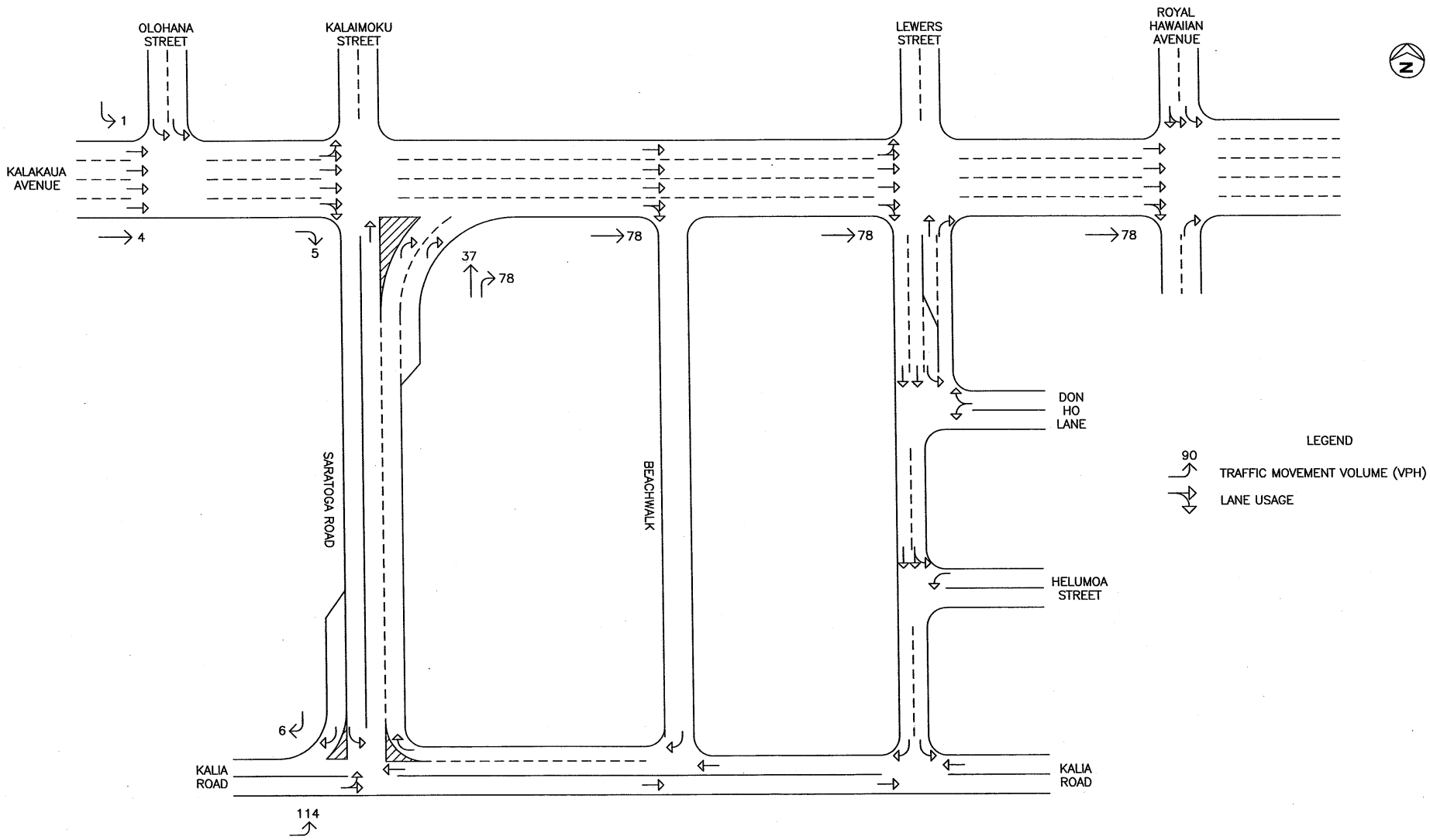


WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

DISTRIBUTION OF SITE-GENERATED TRAFFIC - WEEKDAY PM PEAK HOUR OF TRAFFIC

FIGURE 7



WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

DISTRIBUTION OF SITE-GENERATED TRAFFIC - SATURDAY EVENING PEAK HOUR OF TRAFFIC

FIGURE 8

E. Total Traffic Volumes With Project

Figures 9 and 10 show the cumulative AM and PM peak hour traffic conditions resulting from the projected external traffic and the 280 Beach Walk Waikiki retail development. The cumulative volumes consist of site- generated traffic superimposed over Year 2010 projected traffic demands. The traffic impacts resulting from the proposed project are addressed in the following section.

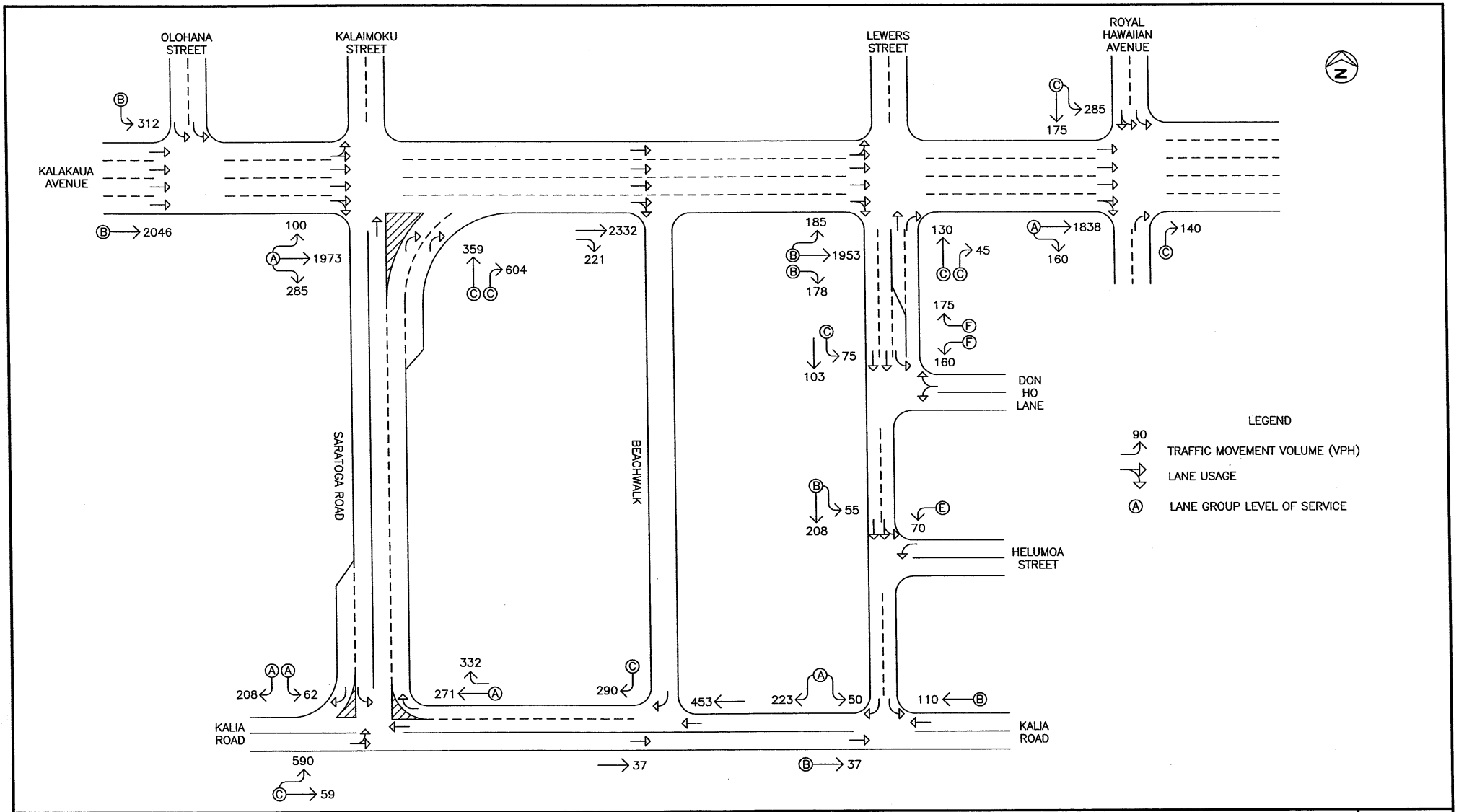
VI. TRAFFIC IMPACT ANALYSIS

The Year 2010 cumulative weekday PM and Saturday evening peak hour traffic conditions with the development of 280 Beach Walk Waikiki development are summarized in Table 4 The projected Year 2010 without project operating conditions are provided for comparison purposes. LOS calculations are included in Appendix B.

Table 4 Year 2010 Peak Hour Traffic Conditions (Without and With Project)

Intersection	Critical Movement		Weekday PM		Saturday Evening	
			w/out Proj	w/ Proj	w/out Proj	w/ Proj
Kalakaua Ave/ Olohana St	Eastbound	TH	B	B	B	B
	Southbound	LT	B	B	B	B
Kalakaua Ave/ Kalaimoku St/ Saratoga Rd	Eastbound	LT-TH-RT	A	A	A	A
	Northbound	TH	C	C	B	B
		RT	C	C	B	C
Kalakaua Ave/ Lewers St	Eastbound	LT-TH	B	B	B	B
		RT*	B	B	B	B
	Northbound	TH	C	C	C	C
		RT	C	C	C	C
Kalakaua Ave/ Royal Hawaiian Ave	Eastbound	TH-RT	A	A	A	A
	Northbound	RT	C	C	C	C
	Southbound	LT-TH	C	C	C	C
Don Ho Ln/ Lewers St	Westbound	LT	F	F	F	F
		RT	F	F	F	F
	Southbound	LT	C	C	D	D

*Although lane is designated as a shared through and right-turn lane, most through vehicles utilize other lanes due to the high turning volumes.

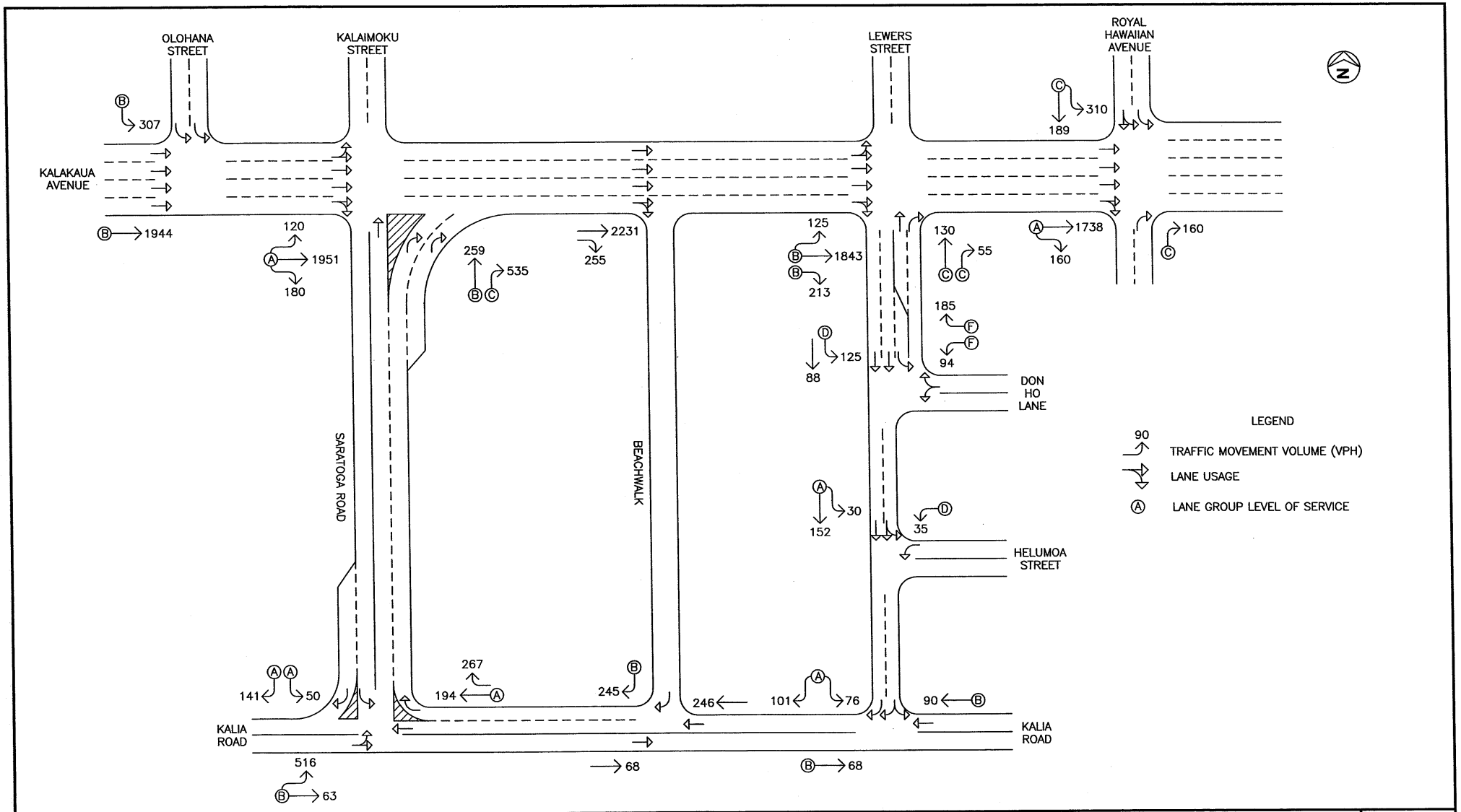


WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

YEAR 2010 WEEKDAY PM PEAK HOUR OF TRAFFIC WITH PROJECT

FIGURE 9



WILSON OKAMOTO CORPORATION
ENGINEERS • PLANNERS

BEACH WALK WAIKIKI

YEAR 2010 SATURDAY EVENING PEAK HOUR OF TRAFFIC WITH PROJECT

FIGURE 10

Table 4 Year 2010 Peak Hour Traffic Conditions (Without and With Project)

Intersection	Critical Movement		Weekday PM		Saturday Evening	
			w/out Proj	w/ Proj	w/out Proj	w/ Proj
Helumoa St/ Lewers St	Westbound	LT	E	E	D	D
	Southbound	LT-TH	B	B	A	A
Kalia Rd/ Saratoga Rd	Eastbound	LT-TH	B	C	A	B
	Westbound	TH	A	A	A	A
	Southbound	LT	A	A	A	A
		RT	A	A	A	A
Kalia Rd/Beach Walk	Southbound	RT	C	C	B	B
Kalia Rd/ Lewers St	Eastbound	TH	B	B	B	B
	Westbound	TH	B	B	B	B
	Southbound	LT-RT	A	A	A	A

Under Year 2010 conditions with the 280 Beach Walk Waikiki development, traffic operations in the project vicinity are generally expected to remain similar to without project conditions during the weekday afternoon and Saturday evening peak periods. The northbound right-turn traffic movement at the intersection of Kalakaua Avenue with Saratoga Road and Kalaimoku Street is anticipated to operate at a slightly lower level of service during the PM peak period while the eastbound left-turn and through traffic movement at the intersection of Kalia Road and Saratoga Road is anticipated to operate at a slightly lower levels of service during both peak periods. The remaining critical movements at this intersection, as well as, the other study intersections are anticipated to continue operating at levels of service similar to without project conditions.

VII. RECOMMENDATIONS

Based on the analysis of the traffic data, the following are the recommendations of this study associated with the project implementation:

1. Maintain sufficient driveway width to accommodate safe vehicle ingress and egress.

2. Maintain adequate turning radii at all project driveways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

3. Maintain adequate sight distances for motorists to safely enter and exit all project driveways.

4. Maintain adequate on-site loading and off-loading service areas and prohibit off-site loading operations.

VIII. CONCLUSION

The proposed 280 Beachwalk development entails the construction of a two-story building that is expected to house retail shops and a restaurant with parking provided within an existing parking structure located east of the project site. With the development of the proposed project, traffic operations at the study intersections along Kalakaua Avenue, Lewers Street, and Kalia Road are anticipated to continue operating at acceptable levels of service during the weekday PM and Saturday evening peak periods. As such, the proposed 280 Beach Walk Waikiki development is not expected to have a significant impact on traffic operations in the project vicinity.

APPENDIX E

~~Interim Report:~~ Final Cultural Impact Assessment for the Proposed 280 Beach Walk Retail Development

Cultural Impact Assessment for the Proposed 280 Beachwalk Retail Development,

Waikīkī Ahupuaʻa, Honolulu (Kona District), Oʻahu

TMK [1] 2-6-003: 026, 027, 048, 049, and 058

Prepared for

First Round Pacific, LLC

Prepared by

Lisa Gollin, Ph.D.,

David Shideler, M.A.

and

Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawaiʻi, Inc.

Kailua, Hawaiʻi

(Job Code: WAIKI 14)

June 2007

Oʻahu Office
P.O. Box 1114
Kailua, Hawaiʻi 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
16 S. Market Street, Suite 2N
Wailuku, Hawaiʻi 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Title	Cultural Impact Assessment for the Proposed Waikīkī Beachwalk Amusement Center, Waikīkī Ahupuaʻa, Kona District, Oʻahu Island
Date	June 2007
Project Number/s	Cultural Surveys Hawaiʻi Inc. (CSH) Job Code: WAIKI 14
Agencies	State of Hawaiʻi Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD); State of Hawaiʻi Department of Health / Office of Environmental Quality Control (DOH / OEQC)
Project Location	The project area – TMK 2-6-003: 026, 027, 048, 049, and 058 – comprises an approximately 30,376 square foot property near the north end of the elongated block bounded by Kālia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. It is shown on the 1998 USGS 7.5 Minute Series topographic map, Honolulu Quadrangle. A portion of this property was the former Hula Hut restaurant.
Land Jurisdiction	Private, First Round Pacific, LLC
Project Acreage	Approximately 0.70 acres (30,376 square feet)
Project Description	The project area is proposed for development of a 34,500 square foot retail building comprising two floors of six leased retail and restaurant spaces on parcels 026 and 027. Ground disturbance associated with the retail project will be limited to these parcels and will include borings related to foundation pile installation and excavation related to the project area's development, to include structural footings, utility installation, and landscaping. Minor modifications to an existing parking structure on parcel 048 and surface improvements to the perpetual access easement, parcel 049, are also components of this project.
Area of Potential Effect (APE)	For the current cultural impact assessment, the project's APE is the same as the project area, i.e., the approximately 0.70-acre footprint of the proposed Waikīkī Beachwalk Retail Development project. While this investigation focused on the project APE, the study area included the entire *ahupuaʻa* of Waikīkī.
Document Purpose	At the request of First Round Pacific, LLC, CSH undertook this cultural impact assessment. The project requires compliance with the State of Hawaiʻi environmental review process [Hawaiʻi Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project's effect on traditional cultural practices. Through document research and cultural consultation efforts this document provides information pertinent to the assessment of the proposed project's impacts to cultural practices (per the OEQC's *Guidelines for Assessing Cultural Impacts*). The document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Chapter 6E-42 and Hawaiʻi Administrative Rules Chapter 13-284.

Consultation Effort	Hawaiian organizations, agencies and community members were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the vicinity. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), and the O‘ahu Island Burial Council. This effort was made by letter, e-mail, telephone, and in person contact. In the majority of cases, letters were mailed along with a map and an aerial photograph of the project area.
Identified Cultural Issues	Based on the findings of this assessment, there are no on-going cultural practices in the vicinity of the current proposed project area. However, survey respondents, some of whom are cultural or lineal descendents, spoke of burials in the area. Cultural descendents of Waikīkī participating in this assessment indicated that there could be *iwi* (human remains, bones) in the project area. Native Hawaiian burial practices were such that the potential for encountering human burials within the current project area does exist. Additionally, the present project area is located in the previous location of two fishponds, Loko Kapu‘uiki and Loko Ka‘ohai. Thus, remnant subsurface fishpond sediments could be encountered.
Cultural Impact Recommendations	Based on the findings of this assessment, no cultural impact mitigation measures are warranted. Cultural Surveys Hawai‘i recommends that as a precautionary measure, personnel involved in future development activities in the area should be informed of the strong possibility of inadvertent cultural finds, including human remains, and should be made aware of the appropriate notification measures to follow.

Table of Contents

Management Summary i
Section 1 Introduction 1
1.1 Project Background 1
1.2 Scope of Work 1
1.3 Environmental Setting 2
1.3.1 Natural Environment 2
1.3.2 Built Environment 2
1.4 Methods 8
Section 2 Traditional and Historic Background 9
2.1 Mythological and Traditional Accounts of Waikīkī Ahupua‘a 9
2.1.1 Kamō‘ili‘ili (the pebble lizard) 9
2.1.2 The Shark God Ka‘ehu 9
2.1.3 Surfing with Kelea 10
2.1.4 Pre-contact to Early 1800s 11
2.1.5 Mid-Nineteenth Century and the Māhele 13
2.1.6 The Waikīkī Trail and Kawehewehe 17
2.1.7 Later-Nineteenth Century 17
2.1.9 1920s to 1930s 23
2.1.10 1940s 28
2.1.11 1950s 28
2.2 Summary 31
Section 3 Previous Archaeological Research 32
Section 4 Community Consultations 51
4.1 Results of the Prior Cultural Impact Evaluation for the Project Area 51
4.2 Results of the Current Community Consultation 51
Section 5 Summaries of *Kama‘āina* “Talk Story” Interviews 60
5.1 Kehaulani Kruse 60
5.2 Cy Harris 61
Section 6 Cultural Landscape of the Project Area 62
6.1 Hawaiian Agriculture 62
6.2 Hawaiian Aquaculture 62
6.2.1 Loko Ka‘ohai 64
6.3 Gathering of Plant Resources 64
6.4 Marine and Freshwater Resources 65
6.5 Burials 66
6.6 Kawehewehe – a *Wahi Pana* (Storied Place) of Spiritual Healing 67
6.7 *Mo‘o* (Water Spirits) 68
6.8 Hawaiian Trails 68
Section 7 Summary and Recommendations 70
Section 8 References Cited 71

List of Figures

Figure 1. Portion of the 1998 Honolulu USGS 7.5-minute topographic quadrangle, showing location of project area 4
Figure 2. Tax map showing the project area....5
Figure 3. 2005 USGS orthophoto quad showing the project area, the former Hula Hut Restaurant, the existing parking structure and the access easement from Saratoga Road 6
Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area. Source: Soils Survey Geographic Database (SSUGRO) 2001, U.S. Department of Agriculture 7
Figure 5. 1881 map of Waikīkī by S.E. Bishop with location of current project area....15
Figure 6. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head (Bishop Museum Archives) 20
Figure 7. View of Waikīkī shoreline, ca. 1880s (Bishop Museum Archives)....20
Figure 8. 1914 fire insurance map showing five residential and commercial areas of Waikīkī....22
Figure 9. 1927 fire insurance map with parcels comprising present project area indicated....26
Figure 10. 1935 aerial photograph showing the project area and the surrounding areas of Waikīkī fully developed (US Army-Hawaii Archives) 27
Figure 11. 1951 fire insurance map with parcels comprising present project area indicated....30
Figure 12. U.S. Geological Survey topographic map, showing previous archaeological survey areas in Waikīkī....43
Figure 13.Review letter from the Office of Hawaiian Affairs (OHA) 59
Figure 14. Trails from Punchbowl Street to Waialae as described by ‘Ī‘ī, map by Gerald Ober (‘Ī‘ī 1959:93) 69

List of Tables

Table 1. Previous Archaeological Investigations in Waikīkī Ahupua‘a....33
Table 2. References to Burial Finds in Waikīkī from the Bishop Museum NAGPRA Inventory.41
Table 3. Community Contacts 53

Section 1 Introduction

1.1 Project Background

At the request of First Round Pacific, LLC, Cultural Surveys Hawai‘i (CSH) is conducting a cultural impact assessment of a 0.70-acre project area in Waikīkī Ahupua‘a, Honolulu (Kona) District, Island of O‘ahu (TMK 2-6-003: 026, 027, 048, 049 and 058). The project site area is an approximately 30,376 square foot property located near the north end of the elongated block bounded by Kālia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. The project area is presently a largely empty lot that includes a two-level parking garage, a permanent access easement and, until recent demolition, low-rise buildings, including the site of the Hula Hut Restaurant The project area is proposed for development of a 34,500 square foot retail building comprising two floors of six leased retail and restaurant spaces on parcels 026 and 027. Ground disturbance associated with the retail project will be limited to these parcels and will include borings related to foundation pile installation and excavation related to the project area’s development, to include structural footings, utility installation, and landscaping. Minor modifications to an existing parking structure on parcel 048 and surface improvements to the perpetual access easement, parcel 049, are also components of this project. Figure 1 shows this project area on a USGS topographic map, Figure 2 on a tax map key (TMK) map, and Figure 3 on an aerial photograph.

1.2 Scope of Work

The scope for the cultural impact assessment includes:

1. Examination of historical documents, Land Commission Awards, and historic maps with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record.
2. A review of the existing archaeological information pertaining to the sites on the property as they may allow us to reconstruct traditional land use activities and identify and describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.
3. Interviews with persons knowledgeable about the historic and traditional practices in the project area and region.
4. Preparation of a report on items 1-3 summarizing the information gathered related to traditional practices and land use. The report will assess the impact of the proposed action on the cultural practices and features identified.

1.3 Environmental Setting

1.3.1 Natural Environment

The project area is flat and averages 2 meters (6 feet) above mean sea level. The water table is typically 1.3 m to 2.0 m below the current land surface.

The modern shoreline at present day Waikīkī Beach is 400 meters (1312 ft) to the south. The old, natural shoreline approximately follows the modern shoreline in the vicinity of the project area, though it has been altered somewhat.

The average rainfall in this coastal area of Waikīkī is between 20-30 inches per year, with temperatures ranging from 60 to 85 degrees Fahrenheit (Armstrong 1973:56). Northeasterly trade winds prevail throughout the year, although their frequency varies from more than 90% during the summer months to 50% in January; the average annual wind velocity is approximately 10 miles per hour (Okamoto 1998:2-1). At the start of the inventory survey fieldwork, vegetation within the project area was limited to a few ornamental trees and shrubs in the south corners of the project area.

The USDA Soil Survey (Foote et al. 1972) classifies the project area's soils as "Jaucas sand" (JaC) (Figure 4). Jaucas sand is described as:

> The slope range of this soil is 0 to 15 percent, but in most places the slope does not exceed 7 percent. Included in mapping were narrow strips of beaches and areas of Pulehu, Mokuleia, and Keaau soils.
>
> In a representative profile the soil is single grain, pale brown to very pale brown, sandy, and more than 60 inches deep. In many places the surface layer is dark brown as a result of accumulation of organic matter and alluvium. The soil is neutral to moderately alkaline throughout the profile.
>
> Permeability is rapid, and runoff is very slow to slow. The hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed. The available water capacity is 0.5 to 1.0 inch per foot of soil. In places roots penetrate to a depth of 5 feet or more. Workability is slightly difficult because the soil is loose and lacks stability for use of equipment. (Foote et al. 1972)

Though classified as jaucas sand, historic maps indicate that the project area is largely in the foot print of a number of ponds. While jaucas sand deposits are likely present in the project area, they are probably thin or mixed with wetland sediments. There could be high sand berms, low marshy areas, and fishpond sediments (refer to the historical documentation section, below). These lower areas would have been filled and subsequent development of Waikīkī permanently changed the area, allowing for its current, fully urbanized character.

1.3.2 Built Environment

The project area is located within central Honolulu and is surrounded by modern urban development including high-rise condominiums, apartments and hotels, streets, sidewalks, and utility infrastructure. The project area is bounded by Beach Walk to the east, Saratoga Road to the west, and two-story hollow tile apartment buildings to the north and south. The central

portion of the project area, within Parcels 026 and 027 contained two modern structures, one of which was the Hula Hut Restaurant (refer to Figure 3). These structures were demolished in 2004 and 2005. The southwest portion of the project area, Parcel 048, contains a two-level, partially subterranean parking garage. The northwest portion of the project area is a perpetual access easement that is paved in asphalt. Less than half a dozen ornamental shrubs and small trees are still extant in the very southern corners of the project area.

Figure 1. Portion of the 1998 Honolulu USGS 7.5-minute topographic quadrangle, showing location of project area

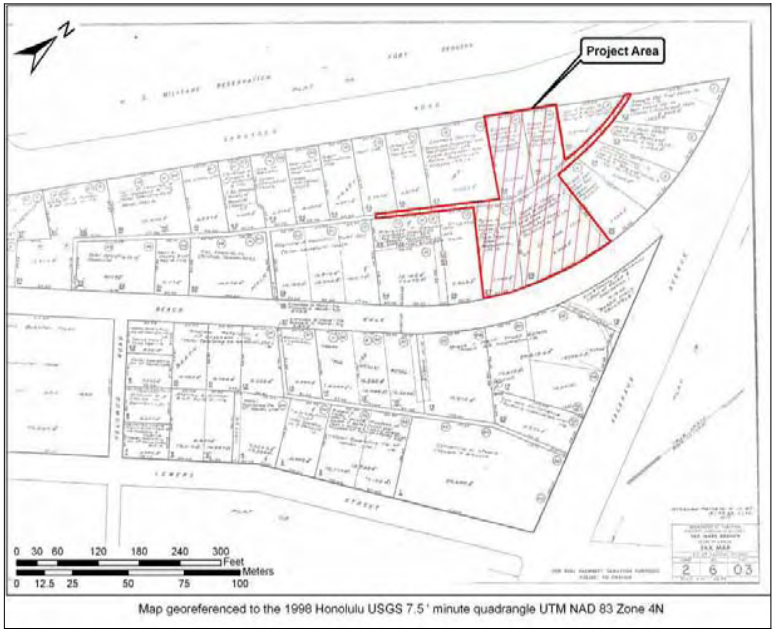


Figure 2. Tax map showing the project area

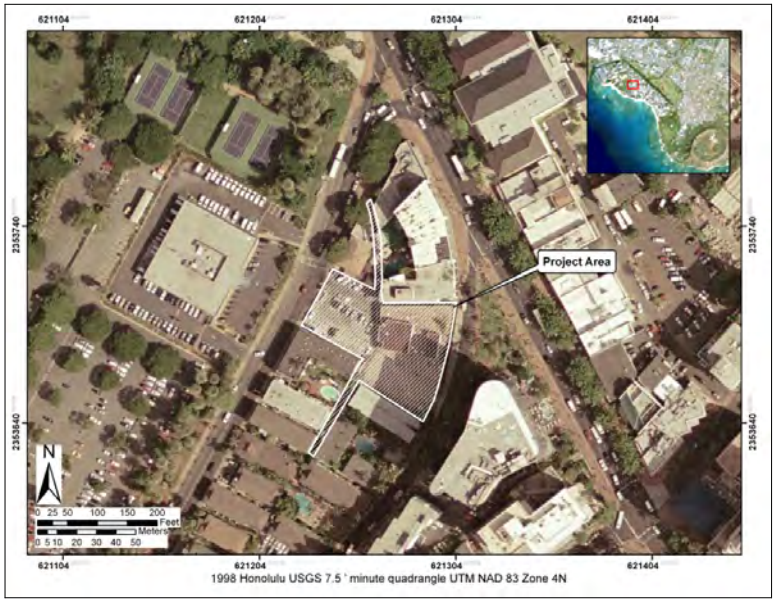


Figure 3. 2005 USGS orthophoto quad showing the project area, the former Hula Hut Restaurant, the existing parking structure and the access easement from Saratoga Road

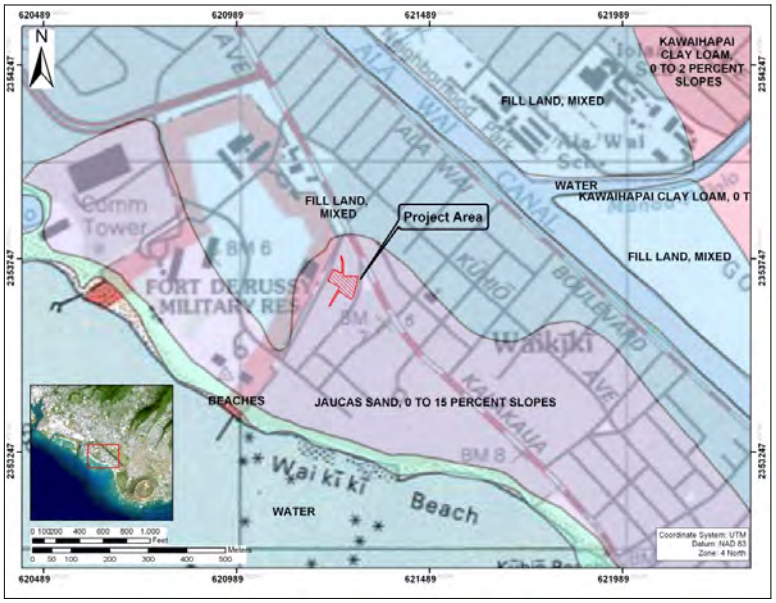


Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area. Source: Soils Survey Geographic Database (SSUGRO) 2001, U.S. Department of Agriculture

1.4 Methods

Historical documents, maps and existing archaeological information pertaining to the sites in the vicinity of this project were researched at the State Historic Preservation Division library, and the Cultural Surveys Hawai‘i library. Information on Land Commission Awards was accessed through Waihona Aina Corporation’s Māhele Data Base (www.waihona.com). The State Historic Preservation Division, Office of Hawaiian Affairs, Island Burial Council, and members of other community organizations were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the study area and the surrounding vicinity. The names for potential community contacts were also provided by colleagues at CSH and from the researcher’s familiarity with people who live in or around the study area. Some of the prospective community contacts were not available to be interviewed as part of this project. A discussion of the consultation process can be found in the section on “Community Consultations.” Please refer to Table 3 for a complete list of individuals and organizations contacted.

Section 2 Traditional and Historic Background

2.1 Mythological and Traditional Accounts of Waikīkī Ahupua‘a

Waikīkī had a previous life, long before the first tourist arrived or the first hotel was built. Rekindling a love for Waikīkī‘s past has been the passion of author/historian Dr. George Kanahele. Traditionally, for Hawaiians, the *mo‘olelo* (story) sought to do more than explain: it sought to re-enchant the mind and spirit. In his book *Waikīkī 100 B. C. to 1900 A.D. An Untold Story,* Dr. Kanahele sums up the following legends of Waikīkī reflecting the elements of water that once flourished in the lands of Waikīkī and whose rolling surf still breaks upon the shores of Waikīkī (Kanahele 1995:1).

2.1.1 Kamō‘ili‘ili (the pebble lizard)

Waikīkī’s earliest *mo‘o* (lizard, dragon, waterspirit) god was probably *Kamō‘ili‘ili* (literally, the pebble lizard) who was slain by Hi‘iaka, Pele’s sister. The legend relates that:

> Hi‘iaka and Wahine‘ōma‘o were escorting Lohi‘au (Pele’s lover-prince) back to Pele on the island of Hawai‘i. During the return journey they left their canoe at Waikīkī and walked up toward Kamō‘ili‘ili. When they arrived at the particular spot (said to be where the old stone church stood in the 1920s), a heavy gust of wind blew, and Wahine‘ōma‘o and Lohi‘au felt invisible hands pulling their ears back. They called to Hi‘iaka for help. She knew that it was the lizard god, Kamō‘ili‘ili, who did it and told the other gods to keep closely behind her. A short distance away, they met Kamō‘ili‘ili who wanted to fight. Hi‘iaka removed her outside skirt which concealed bolts of lightning and struck him with them. His body was cut to pieces and the pieces turned into the long, low hill across from Waikīkī’s Kūhiō School. (Kanahele 1995:42)

2.1.2 The Shark God Ka‘ehu

Shark stories accompany surfing stories in myth as well as in real life because the ‘man-eating’ shark is the most feared element in surfing. One legend that is popular even today is about the little yellow shark Ka‘ehu of Pearl Harbor who was endowed with magical power by his ancestor Kamohoa‘li‘i, the shark god and brother of Pele.

> One day Ka‘ehu called his shark friends to accompany him to Puna. On the way they stopped at Waikīkī where they met Pehu, a man-eating shark from Maui, who was swimming back and forth at Kalehuawehe in wait for an unsuspecting surfer.
>
> Ka‘ehu asked what Pehu was doing there and he replied, “I‘m catching a crab for my breakfast.” “We‘ll help you catch your crab,” Ka‘ehu said, and told him to go near the coral reef while he and his friends would drive them shoreward, allowing Pehu to catch this crab easily. He was pleased with the plan and swam close to the reef where he hid himself in its shadows.

> Then Ka‘ehu told his friends, “We must kill this man-eater because he is destroying our people. Let’s try to push him into the shallow water.”
>
> Soon two surfers appeared and when Pehu lept to catch one, Ka‘ehu and his friends pushed the surfer aside and hurled Pehu over the reef into a deep hole in the coral. The more he thrashed about to escape, the more trapped he became.
>
> When the surfers saw what had happened, they were not as afraid of Pehu and moved to the hole to kill him. As they cut into his body they discovered the remains of their own people. Out of respect, they delivered them to Pele‘ula (an area with many healing *heiau* located in Kou, now downtown Honolulu) and burned the remains. Ka‘ehu had many more adventures that had a similar objective, the punishment of other man-eaters from the great sea. (Kanahele 1995:58-59)

2.1.3 Surfing with Kelea

Surfing was one of the principal attractions of Waikīkī to both chiefs and commoners. So important was surfing that there is a major *heiau* dedicated to the *nalu* or surf, and its riders. At the “surfing *heiau*” of Papa‘ena‘ena, a terraced structure built at the foot of Diamond Head, is where surfers came to offer their sacrifices in order to obtain *mana* and knowledge of the surf. The site overlooked what surfers call today “First Break,” the start of the Kalehuawehe surfing course which extended to Kawewehi (the deep, dark surf) at Kālia. Although everyone, including women and children, surfed, it was the chiefs who dominated the sport, and one of the best among Waikīkī’s chiefs was Kalamakua. He came from a long ancestry of champion surfers whose knowledge, skill and *mana* were handed down and passed on from generation to generation. The story of his romantic meeting with Keleanuinoho‘ana‘api‘api (“Great Kelea who flutters,”) has been preserved as a reminder of the role that surfing played in the history of Waikīkī (Kanahele 1995:56-58).

> One day this beautiful chiefess with “clear skin and sparkling eyes,” who then resided in Wahiawā (in Central O‘ahu), was visiting Waikīkī with a few of her ladies-in-waiting. She entered the coconut grove and beach of Kawehewehe which was located just east of the Halekūlani Hotel. Here is where the sick came to bathe and to be healed. They would wear *limu kala* (seaweed) leis and leave them in the water as a request to the gods for forgiveness of past wrongs which was the cause of much illness.
>
> The residents welcomed Keleanuinoho‘ana‘api‘api and offered her coconuts to eat. She remarked that Waikīkī was “the most pleasant place we have seen,” to which her hosts replied, “This is a place for enjoyment. Over there is the *kou* grove of Kahaloa where one may view the surfing of the chiefs and of the *ali‘i nui* Kalamakua.” Kahaloa, or “Long Place,” was also a beach area located today between the Royal Hawaiian and Halekūlani hotels and noted for its fragrant *līpoa* seaweed. When she asked if she could borrow a surfboard, the Waikīkīans were surprised because they thought people from Waihiawā were only adept at “slicing

> *mo‘okilau* ferns and *pōpolo* stalks,” not at surfing. They did not know that their visitor was originally from Maui where she surfed with all the chiefs. She was too beautiful to refuse and someone gave her a board.
>
> Before she entered the water, she “rubbed off the red dirt of ‘Ewa from her feet so as to look fresh,” and then paddled off like an expert, moving easily and noiselessly without the least heeling over. Instead of starting at the first break where *kama‘āina* (native born) surfers congregated, she went beyond and waited for a large wave. She let the first, second and third waves pass, and rode the fourth one all the way to shore. The chiefs and commoners were so impressed with her skill and grace that they immediately joined in loud cheers of admiration.
>
> Meahwhile, Kalamakua, who was working in his taro fields nearby asked his men who was causing the commotion. They replied that the people were amazed at the performance of a female surfer. A skilled surfer himself, Kalamakua rushed to the edge of the beach to see for himself. He recognized Kelea at once as the chiefess from Maui famed for her surfing prowess.
>
> When she reached shore, he took hold of her board and asked, “Are you Kelea?” “Yes,” she answered. As she stood up, in naked splendor, he removed his feathered shoulder cap and wrapped it around her. Then he guided her to a *kapu* place and made her his *ali‘i wahine mō‘ī,* or queen. (Kanahele 1995:56-58)

2.1.4 Pre-contact to Early 1800s

Waikīkī, by the time of the arrival of Europeans in the Hawaiian Islands during the late eighteenth century, had long been a center of population and political power on O‘ahu. According to Martha Beckwith (1940), by the end of the fourteenth century, Waikīkī had become the seat of power for the ruling chiefs of Oahu. The preeminence of Waikīkī continued into the eighteenth century and is betokened by Kamehameha's decision to reside there upon wresting control of O‘ahu by defeating the island's chief, Kalanikūpule. The nineteenth-century Hawaiian historian John Papa ‘Ī‘ī, himself a member of the *ali‘i*, described the king's Waikīkī residence:

> Kamehameha's houses were at Puaaliiili, makai of the old road, and extended as far as the west side of the sands of Apuakehau. Within it was Helumoa where Kaahumanu *ma* went to while away the time. The king built a stone house there, enclosed by a fence . . .. (‘Ī‘ī 1959: 17)

‘Ī‘ī further noted that the "place had long been a residence of chiefs. It is said that it had been Kekuapoi's home, through her husband Kahahana, since the time of Kahekili" (‘Ī‘ī 1959: 17).

Chiefly residences, however, were only one element of a complex of features – sustaining a large population – that characterized Waikīkī up to pre-contact times. Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waikīkī to lower Mānoa and Pālolo valleys. This field system – an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua – took advantage of streams descending from Makiki, Mānoa and Pālolo valleys which also provided

ample fresh water for the Hawaiians living in the *ahupua'a*. Water was also available from springs in nearby Mō'ili'ili and Punahou. Closer to the Waikīkī shoreline, coconut groves and fishponds dotted the landscape. A sizeable population developed amidst this Hawaiian-engineered abundance. Captain George Vancouver, arriving at "Whyteete" in 1792, captured something of this profusion in his journals:

> On shores, the villages appeared numerous, large, and in good repair; and the surrounding country pleasingly interspersed with deep, though not extensive valleys; which, with the plains near the sea-side, presented a high degree of cultivation and fertility.
>
> [Our] guides led us to the northward through the village, to an exceedingly well-made causeway, about twelve feet broad, with a ditch on each side.
>
> This opened our view to a spacious plain, which, in the immediate vicinity of the village, had the appearance of the open common fields in England; but, on advancing, the major part appeared to be divided into fields of irregular shape and figure, which were separated from each other by low stone walls, and were in a very high state of cultivation. These several portions of land were planted with the eddo or *taro* root, in different stages of inundation; none being perfectly dry, and some from three to six or seven inches under water. The causeway led us near a mile from the beach, at the end of which was the water we were in quest of. It was a rivulet five or six feet wide, and about two or three feet deep, well banked up, and nearly motionless; some small rills only, finding a passage through the dams that checked the sluggish stream, by which a constant supply was afforded to the *taro* plantations.
>
> [We] found the plain in a high state of cultivation, mostly under immediate crops of *taro*; and abounding with a variety of wild fowl, chiefly of the duck kind . . . The sides of the hills, which were at some distance, seemed rocky and barren; the intermediate vallies, which were all inhabited, produced some large trees, and made a pleasing appearance. The plain, however, if we may judge from the labour bestowed on their cultivation, seemed to afford the principal proportion of the different vegetable productions on which the inhabitants depend for their subsistence.(Vancouver 1798: I, 161-164)

Further details of the exuberant life that must have characterized the Hawaiians use of the lands that included the *ahupua'a* of Waikīkī are given by Archibald Menzies, a naturalist accompanying Vancouver's expedition:

> The verge of the shore was planted with a large grove of cocoanut palms, affording a delightful shade to the scattered habitations of the natives. Some of those near the beach were raised a few feet from the ground upon a kind of stage, so as to admit the surf to wash underneath them. We pursued a pleasing path back to the plantation, which was nearly level and very extensive, and laid out with great neatness into little fields planted with taro, yams, sweet potatoes and the cloth plant. These, in many cases, were divided by little banks on which grew the sugar cane and a species of *Draecena* without the aid of much cultivation, and the

> whole was watered in a most ingenious manner by dividing the general stream into little aqueducts leading in various directions so as to be able to supply the most distant fields at pleasure, and the soil seemed to repay the labour and industry of these people by the luxuriancy of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish, they swarmed with water fowl of various kinds such as ducks, coots, water hens, bitterns, plovers and curlews. (Menzies 1920:23-24)

However, the traditional Hawaiian focus on Waikīkī as a center of chiefly and agricultural activities on southeastern O'ahu was soon to change, disrupted by the same Euro-American contact that produced the first documentation (including the records cited above) of that traditional life. The *ahupua'a* of Honolulu - with the only sheltered harbor on O'ahu - became the center for trade with visiting foreign vessels, drawing increasing numbers of Hawaiians away from their traditional environments. Kamehameha himself moved his residence from Waikīkī to the coast near Honolulu harbor, likely in order to maintain his control of the lucrative trade in sandalwood that had developed. By 1828, the missionary Levi Chamberlain, describing a journey into Waikīkī, would note:

> Our path led us along the borders of extensive plats of marshy ground, having raised banks on one or more sides, and which were once filled with water, and replenished abundantly with esculent fish; but now overgrown with tall rushes waving in the wind. The land all around for several miles has the appearance of having once been under cultivation. I entered into conversation with the natives respecting this present neglected state. They ascribed it to the decrease of population. (Chamberlain 1956:26)

Tragically, the depopulation of Waikīkī was not simply a result of the attractions of Honolulu (where, by the 1820s, the population was estimated at 6,000 to 7,000), but also of the European diseases that had devastating effects upon the Hawaiian populace.

2.1.5 Mid-Nineteenth Century and the Māhele

The depopulation of Waikīkī, however, was not total and the *ahupua'a* continued to sustain Hawaiians living traditionally into the mid-ninteenth century. Land Commission Award records associated with the mid-nineteenth century Māhele document awardees continuing to maintain fishponds and irrigated and dry-land agricultural plots though on a greatly reduced scale than had been possible previously with adequate manpower.

Toward the mid-nineteenth century, the Organic Acts of 1845 and 1846 initiated the process of the Māhele, the division of Hawaiian lands, which introduced private property into Hawaiian society. In 1848 the crown, the Hawaiian government, and the *ali'i* (royalty) received their land titles. Subsequently in the Māhele, Land Commission Awards (LCAs) were given to commoners and others who could prove residency on and use of the parcels they claimed.

An 1881 Hawaiian Government survey map by S.E. Bishop – with locations of LCA parcels indicated – provides a detailed record of the physical landscape of Waikīkī before the transformations of the twentieth century. When the map was copied in 1922, additional material from subsequent government surveys was added, including locations of road corridors not present in 1881. A portion of the 1922 copy shows fishponds within and adjacent to the present

project area that can be located by the routes of Kalākaua Avenue, Saratoga Road, Kālia Road, and Lewers Road (Figure 5).

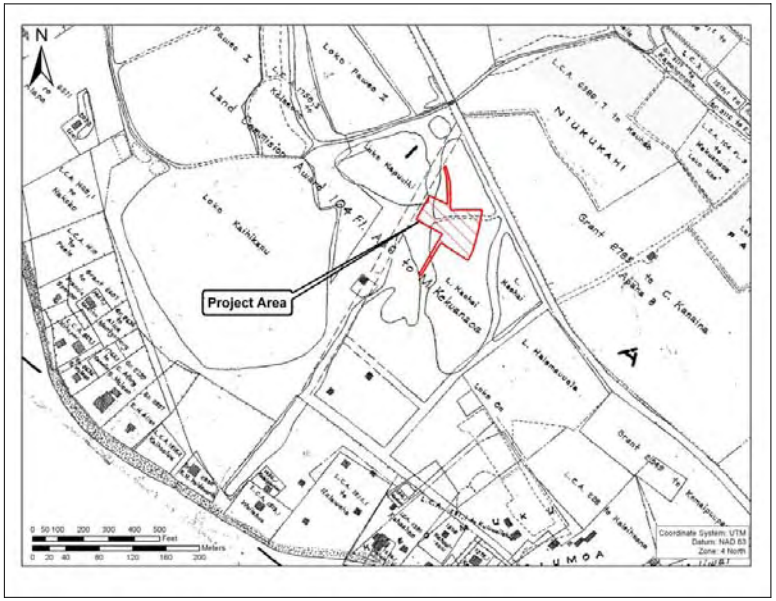


Figure 5. 1881 map of Waikīkī by S.E. Bishop with location of current project area

The two fishponds – Loko Kapu‘uiki and Loko Ka‘ohai – within and extending beyond the project area are among the complex of Kālia fishponds, comprising 71.70 acres, that were awarded to Mataio Kekūanaō‘a in Land Commission Award 104-FL (Fort Lands). Kekūanaō ‘a, born in Hilo on Hawai`i Island in the 1790s, was governor of O‘ahu at the time of the Māhele. He was the father of Alexander Liholiho (King Kamehameha IV), Lot Kamehameha (King Kamehameha V), Princess Victoria Kamāmalu, Princess Ruth Ke‘elikolani, and Moses Kekuaiwa. Following his death in November 1868 his daughter, Princess Ruth, inherited his lands.

Māhele records for two Land Commission Award (LCA) parcels *makai* of the project area – LCA 1436, parcel 1, awarded to Kaleipaopao; and LCA 1513, parcel 1 awarded to Wailehua –

provide insights into traditional Hawaiian utilization of this portion of Waikīkī up to the middle of the nineteenth century.

Land Commission Award 1436 was awarded to a woman named Kalaipaopao (not “Kaleipaopao” as recorded on the 1881 map). Kalaipaopao’s own testimony reveals the extent of her land holdings in Waikīkī (www.waihona.com):

> To the Land Commissioners, Greetings:
>
> I hereby tell of my claim for two *lo‘i* in the *‘ili* of Kanuku, named Aula, of the *ahupua‘a* of Waikiki, and some rows of taro hills from Kaahumanu I and two sections of stream gotten at the same time. Two *lo‘i* were from Nalaweha, and a small houselot here at Kawehewehe and a stream called Kawehewehe. The length of my occupation of this house site and the sections of stream and the rows of [taro] hills in Hohe, is from Kaahumanu I, and the acquisition of a stream was after the work of Kīna‘u at Kaipuni. That was when my *makuakane*, Ahia, acquired them. I was his *kaikamahine*. There were two of us by Ahia – myself, Kalaipaopao, a female, also a male; however, I inherited all of it. I also have some lands on Hawai`i at Waimea, called Pauahi, and in Kohala, called Paoo, yet, perhaps the proper procedure in the dividing of the *Mo‘i* is yet to be done. This is my claim presented by me, in accordance with the good which you are doing, and it is the truth which has been told. I am, with thanks,
>
> KALAIPAOPAO
>
> Waikiki, Oahu
>
> December 9, 1847

The parcel shown on the 1881 map is Kalaipaopao’s house lot (Figure 5). Her testimony identifies this area as Kawehewehe, which also names the stream shown on the west side of her house lot. The full 1881 map shows her taro *lo‘i* parcels “in the ‘*ili* of Kanuku” were located within the bounds of the present-day Ala Wai Golf Course. Her testimony also indicates that her occupancy on these lands dates back at least to the 1820s and the regency of Ka‘ahumanu. The mention of also having lands on Hawai‘i Island at Waimea and Kohala suggests that Kalaipaopao or her family, while not themselves *ali‘i* (royalty), may have had some association with chiefs who had granted them their lands.

Land Commission Award 1513 was awarded to a man named Wailehua who identifies his Waikīkī land holdings (www.waihona.com):

> To the Land Commissioners, Greetings:
>
> I hereby tell of my land claim at Pahupahuapuaa in Waikiki, island of Oahu, consisting of eight *lo‘i*, one houselot, one *kula*; that is what I tell you.
>
> WAILEHUA
>
> Kawehewehe at Waikiki, Dec. 4, 1847

The parcel shown on the 1881 map is Wailehua’s house lot. The full 1881 map shows that Wailehua’s taro *lo‘i* parcels were located within the bounds of the present-day Ala Wai Golf

Course. A witness for Wailehua named Nalaueha gave further details on the claimant and his claim (www.waihona.com):

> Wailehua’s land is from Kaahumanu I: he has been konohiki from the time of Kaahumanu to the present time under V. Kamamalu. One patch had been objected because there were no men doing prison detail. It had been Kinolu’s patch and upon his death, it was acquired by Kamaukoli.

Wailehua is revealed to have been the *konohiki* or headman of the *ahupua‘a* who received his lands directly from Ka‘ahumanu.

These Māhele documents – along with those for adjacent parcels – suggest that, up to the early historic period, this portion of Waikīkī was the location of house lots for Hawaiians who were not *ali‘i* but who may have had some association with chiefly figures. The Hawaiians living here typically had taro *lo‘i* further *mauka* in areas presently known as McCully, Mō‘ili`ili, and Kapahulu.

2.1.6 The Waikīkī Trail and Kawehewehe

In *Fragments of Hawaiian History* John Papa ‘Ī‘ī described the “Honolulu trails of about 1810” (1959: 89), including the trail from Honolulu to Waikīkī:

> The trail from Kawaiahao which led to lower Waikiki went along Kaananiau, into the coconut grove at Pawaa, the coconut grove of Kuakuaka, then down to Piinaio; along the upper side of Kahanaumaikai’s coconut grove, along the border of Kaihikapu pond, into Kawehewehe; then through the center of Helumoa of Puaaliiilii, down to the mouth of the Apuakehau stream....(‘Ī‘ī 1959: 92)

The 1881 map (see Figure 5 above) shows Kaihikapu pond to the west of the present project area. In the *Māhele* records cited above, Kalaipaopao identifies the *makai* portion of the present project area as Kawehewehe.

Based on ‘Ī‘ī’s description, the trail from Honolulu to Waikīkī in 1810 coursed through the *makai* side of the present Ft. DeRussy grounds and continued *makai* of the present project area in the vicinity of Kālia Road. It is likely that this trail was a long-established traditional route through Waikīkī.

The place name Kawehewehe recorded by ‘Ī‘ī and in the *Māhele* records is also of note. It does not only identify a land area in Waikīkī; according to Hawaiian scholars, it also names:

> [The] Reef entrance and channel off Grey’s Beach, just east of the Hale-kū-lani Hotel, Waikīkī, Honolulu. The sick were bathed here as treatment. The patient might wear a seaweed (*limu-kala*) lei and leave it in the water as a request that his sins be forgiven, the lei being a symbol. *Lit.*, the removal. (Pukui et al. 1974:99)

2.1.7 Later-Nineteenth Century

As the nineteenth century progressed, Waikīkī was becoming a popular site among foreigners, mostly American, who had settled on O‘ahu; an 1865 article in the Pacific Commercial Advertiser mentioned a small community that had developed along the beach. The

area continued to be popular with the *ali‘i* (the Hawaiian royalty) and several notables had residences there. A visitor to O‘ahu in 1873 described Waikīkī as “a hamlet of plain cottages, whither the people of Honolulu go to revel in bathing clothes, mosquitoes and solitude, at odd times of the year” (Bliss 1873).

Other developments during the second half of the nineteenth century, prefiguring the changes that would alter the landscape of Waikīkī during this century, include the improvement of the road connecting Waikīkī to Honolulu (the route of the present Kalākaua Ave.), the building of a tram line between the two areas, and the opening of Kap‘iolani Park on June 11, 1877. Also in the late 1800s, the Saratoga Baths opened “at the approximate location of today’s Reef Hotel...it remained in operation for most of the 1890s, and, more than likely, bestowed its name upon Saratoga Street, the main thoroughfare between the baths and the tramway stop on Waikīkī Road [*i.e.*, the present Kalākaua Avenue]” (Hibbard and Franzen 1986:54).

As shown in the 1881 map (see Figure 5 above), there were buildings, likely houses, standing *makai* of the present project area. Whether these were the residences of the Hawaiian land claimants of the Māhele, or their families, is uncertain.

It is more certain that traditional land-uses in Waikīkī were abandoned or modified. By the end of the nineteenth century, most of the fishponds that had previously proliferated had been neglected and allowed to deteriorate. The remaining taro fields were planted in rice to supply the growing numbers of immigrant laborers imported from China and Japan, and for shipment to the west coast of the United States.

As the sugar industry throughout the Hawaiian kingdom expanded in the second half of the nineteenth century, the need for increased numbers of field laborers prompted passage of contract labor laws. In 1852 the first Chinese contract laborers arrived in the islands. Contracts were for five years, and pay was $3 a month plus room and board. Upon completion of their contracts, a number of the immigrants remained in the islands, many becoming merchants or rice farmers.

As was happening in other locales, in the 1880s, groups of Chinese began leasing and buying, from the Hawaiians of Waikīkī, former taro lands for conversion to rice farming. The taro lands' availability throughout the islands in the late 1800s reflected the declining demand for taro as the native Hawaiian population diminished.

The Hawaiian Islands were well-positioned for rice cultivation. A market for rice in California had developed as increasing numbers of Chinese laborers immigrated there since the mid-nineteenth century. Similarly, as Chinese immigration to the islands also accelerated, a domestic market opened.

The primary market for both husked rice and paddy raised in all parts of the Hawaiian Islands was in Honolulu. The number of Chinese in the islands created a large home demand.

> In 1880 the home market was made more secure by an increase in the duty on rice imported into Hawai‘i to 1½ cents on paddy and 2½ cents on hulled rice. It resulted in further checking the importation of foreign rice and giving an immense impetus to the home product. (Coulter and Chun 1937:13)

By 1892, Waikīkī had 542 acres planted in rice, representing almost 12% of the total 4,659 acres planted in rice on O‘ahu. Most of the former taro *lo‘i* converted to rice fields were located *mauka* of the present Ala Wai Boulevard.

In addition to leasing and buying lands for rice farming, Chinese immigrants during the second half of the nineteenth century leased Hawaiian ponds for raising fish – including *‘ama‘ama* (mullet), *awa* (milkfish), and goldfish – and ducks. In the 1890s, ponds in the Kālia area were being leased to and managed by Chinese named Ah Kaiu and Leong Fook (Kanahele 1995:128). While they no longer operated the Kālia fishponds, several Hawaiian fishermen were recorded as living in the Kālia area of Waikiki in the last decade of the nineteenth century; among those listed in the *Directory of the Hawaiian Kingdom* in 1890 were: George Ainoa, Kahananui, Kainoa, Kalaau, Kamanoulu, Kaua, Kanoho, Liuiwaa, Paahao, Puke, Kepa, and Nakooko (Kanahele 1995:151).

Two historic photographs from the late nineteenth century reveal the character of the Waikīkī landscape in the vicinity of the project area. Figure 6 is a view of the Kālia fishponds, looking toward Leahi Crater (Diamond Head). Coordinating the features shown in the photograph – including the buildings and configuration of the ponds – with those indicated on the 1881 map, it is likely that the photograph shows the southeast end of the Kālia pond field that includes Loko Kapuuiki and Loko Ka‘ohai in the present project. Figure 7 shows the Waikīkī coastline, apparently in the vicinity of the present Hālekūlani Hotel grounds. The photograph indicates the area was occupied by closely packed wooden structures – again, likely the same ones indicated in this area on the 1881 map.

Figure 6. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head (Bishop Museum Archives)

Figure 7. View of Waikīkī shoreline, ca. 1880s (Bishop Museum Archives)

2.1.8 1900 to 1920

During the first decade of the twentieth century, the U.S. War Department acquired more than 70 acres in the Kālia portion of Waikīkī for the establishment of a military reservation called Fort DeRussy, named in honor of Brig. Gen. R.E. DeRussy of the Army Corps of Engineers.

> On 12 November 1908, a detachment of the 1st Battalion of Engineers from Fort Mason, California, occupied the new post...
>
> Between 1909 and 1911 the engineers were primarily occupied with mapping the island of O‘ahu. At DeRussy other activities also had to be attended to - especially the filling of a portion of the fishponds which covered most of the Fort. This task fell to the Quartermaster Corps, and they accomplished it through the use of an hydraulic dredger which pumped fill from the ocean continuously for nearly a year in order to build up an area on which permanent structures could be built. Thus the Army began the transformation of Waikīkī from wetlands to solid ground. (Hibbard and Franzen 1986:79)

All the fishponds were filled by 1928.

The U.S. military was not alone in the effort to fill in the fishponds of Kālia during the early decades of the twentieth century. The growing population of Honolulu was creating a demand for housing in the surrounding neighborhoods. The realtor Percy Pond undertook to transform Loko Ka‘ohai which occupies the majority of the present project area:

> Pond’s involvement with Waikīkī began in 1911, when he purchased the Loko Ka‘ohai fishpond, as well as a parcel on Diamond Head. He took land from the latter to fill the former, which he subdivided as the Beach Walk tract. The six-acre fishpond cost $3,250, or 1.5 cents/square foot, to acquire, and when filled the subdivision lots sold for 10 cents to 15 cents/square foot. By 1927, land in this area was valued at approximately $2/square foot. (Hibbard and Franzen 1986: 104)

A fire insurance map of 1914 indicates that the present project area was outside of the five areas in Waikīkī where residential and commercial structures were concentrated in the early twentieth century (Figure 8). The five areas were located: 1) *makai* of the project area, around the intersections of K Rd., Beach Walk, and Lewers Rd.; 2) near the intersection of Ena Road and Kalakaua Avenue; 3) *makai* of Kālia Road on the west side of Ft. DeRussy; 4) clustered around the Moana Hotel on Kalākaua Avenue; and 5) in Kapahulu on the ‘*ewa* side of Makee Road (the present Kapahulu Avenue). The fire insurance map also reveals the relative isolation of Waikīkī, in the early twentieth century, from the encroaching grid of modern Honolulu streets.

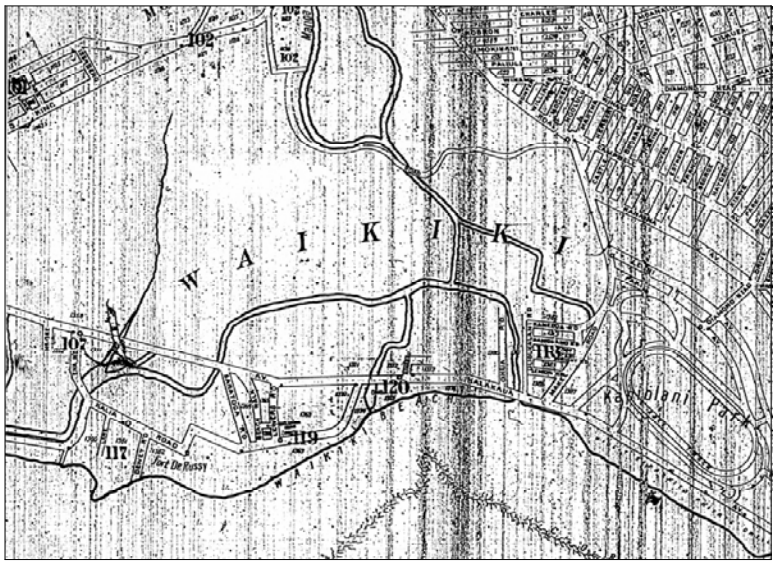


Figure 8. 1914 fire insurance map showing five residential and commercial areas of Waikīkī

2.1.9 1920s to 1930s

Not only was the present project area transformed in the twentieth century. Great changes were taking place just offshore. The reef off Fort DeRussy was dynamited to create a channel through which 14-inch guns were floated to their emplacements at DeRussy. Kīna‘u Wilder, in her reminiscences of her family’s life in Waikīkī, recorded the devastating effects of this action:

> And then the Army brought in an eighteen inch gun to Fort de Russey [*sic*], right next to the old Lewers place which is now the famous Halekulani Hotel. Why the gun could not have been brought in by land I will never know. They brought it by barge instead. In order to reach the emplacement, it was necessary to break through the reef just beyond the spot where our raft floated. This completely changed the pattern of the currents. The beach at Waikiki was never the same. Instead of the reef holding the sands of the beach and preventing them from being carried out by the changing tides, the sand was swept through the hole in the reef, never to return. What had been a glorious sandy beach – which no other beach on earth could touch – was nothing. Property owners lost anywhere from ten to thirty feet of their ocean frontage. Everyone was forced to put up seawalls to keep from losing their houses as well. Instead of running from the grass right on out to the ocean, we had to go down slippery steps to a miserable little strip of sand which, during certain months, was non-existent. At times I could jump from our seawall right into the water. (Wilder 1978:72)

An article in the *Honolulu Star-Bulletin* of September 2, 1933 (section 3, pg.1) confirms the loss of beach space:

> Much of the broad beach which existed in 1913 has also disappeared. It used to be possible to dive into the breakers from the porch of the bathhouse in Merlon Emmans’ back yard, but even that is no longer being done.

An insight into life this section of Waikīkī in the 1920s and 1930s is provided by Betty Dyer Sorensen whose family lived at the corner of Kalākaua Avenue and Beach Walk. Her parents, John and Mabel Dyer, had bought a 7055-square-foot lot at 290 Beach Walk for $1500 in 1918. Mrs. Sorensen describes the house her parents built there, in which she lived following her birth in 1922 until her marriage in 1946:

> The front porch was on the *mauka* (mountain) side, and it caught the mountain breezes. It was painted buff with white trim and was in the Twenties bungalow style. (Sorensen 1995:30-31)

In the 1920s, Waikīkī was a small neighborhood

> ...with little cottages, inexpensive apartments and a few nice houses. People liked to live there because it was so close to the ocean and to transportation. The streetcars went down Kalakaua Avenue, Waikiki’s main thoroughfare, all the way from Diamond Head to the business section of downtown Honolulu, three miles away. The few tourists who visited either stayed with friends for at least a month or they rented a cottage. (Sorensen 1995:1)

Mrs. Sorensen recalls that there were "lots of apartments on Beach Walk, rented by people who worked in downtown Honolulu" (Sorensen 1995: 34). However, remnants of the former Waikīkī landscape also remained near Beach Walk:

> Across the street from our house, on the corner of Beach Walk and Kalakaua Avenue, was a large swampy area known as the duck ponds. It was a several block area consisting of coral with water on the surface. It was whitish from the coral. We could dig down in our own back yard and reach the water level in less than two feet. (Sorensen 1995: 54)

Mrs. Sorensen summarizes the types of Waikīkī tourists and their accommodations she remembers during her childhood:

> The Waikiki of my growing-up years in the 1920's and 30's consisted of the Moana Hotel, the Halekulani Hotel, the Royal Hawaiian Hotel, and the Niumalu Hotel, plus several boarding-type hotels and many small cottages. Wealthy tourists came out from Chicago and other snowy areas to spend the entire winter. Some even brought their own car and their own driver, and maid. It was the talk of the town when one family from Chicago even brought a French maid. (Sorensen 1995: 55)

The project area and the surrounding neighborhood during the period Mrs. Sorensen recalls are shown in fire insurance maps of 1927 (Figure 9). Where in 1914 only a portion of the area had been developed, structures now fill the entire landscape. Confirming Mrs. Sorensen's description, the neighborhood is shown to be an enclave of cottages and apartment buildings. While individual dwellings predominate, apartments, inns, and a boarding house are also present. At the intersection of Board Walk and Kalākaua Avenue is The Louidor, a boarding house near Mrs. Sorensen's family's home. On the Diamond Head side of Lewers Road is the Waikiki Court apartments (on the site of the present Ohana Reef Towers).

During the 1920s, Waikīkī landscape would be transformed when the construction of the Ala Wai Drainage Canal, begun in 1921 and completed in 1928, resulted in the draining and filling in of the remaining ponds and irrigated fields of Waikīkī, including the "duck ponds" recalled by Mrs. Sorensen. The canal was one element of a plan to urbanize Waikīkī and the surrounding districts:

> The [Honolulu city] planning commission began by submitting street layout plans for a Waikiki reclamation district. In January 1922 a Waikiki improvement commission resubmitted these plans to the board of supervisors, which, in turn, approved them a year later. From this grew a wider plan that eventually reached the Kapahulu, Moiliili, and McCully districts, as well as lower Makiki and Manoa...
>
> The standard plan for new neighborhoods, with allowances for local terrain, was to be that of a grid, with 80-foot-wide streets crossing 70-foot-wide avenues at
>
> right angles so as to leave blocks of house lots about 260 by 620 feet. Allowing for a 10-foot-wide sidewalk and a 10-foot right-of-way [alley] down the center of each block, there would be twenty house lots, each about 60 by 120 feet, in each block. (Johnson 1991:311)

During the course of the Ala Wai Canal's construction, the banana patches and ponds between the canal and the *mauka* side of Kalākaua Avenue were filled and the present grid of streets was laid out. These newly created land tracts spurred a rush to development in the 1930s. An article in the *Honolulu Star-Bulletin* in 1938 extolled the area's progress:

> The expansion of apartment and private residence construction is no secret. Examination of building permits will show that more projects have been completed during the past year, and more are now underway in this area, than in any other section of the territory.
>
> These developments are being made by island residents who have recognized the fact that Waikiki presents the unparalleled possibility for safe investment with excellent return.(Newton 1938:10)

The writer speculated that the "future of Waikiki is assured."

A U.S. Army aerial photograph of 1935 shows the agglomeration of apartment buildings and private residences that completely filled the present project area and the surrounding neighborhood (**Error! Reference source not found.**).

Map georeferenced to the 1998 Honolulu USGS 7.5 ' minute quadrangle UTM NAD 83 Zone 4N

Figure 9. 1927 fire insurance map with parcels comprising present project area indicated

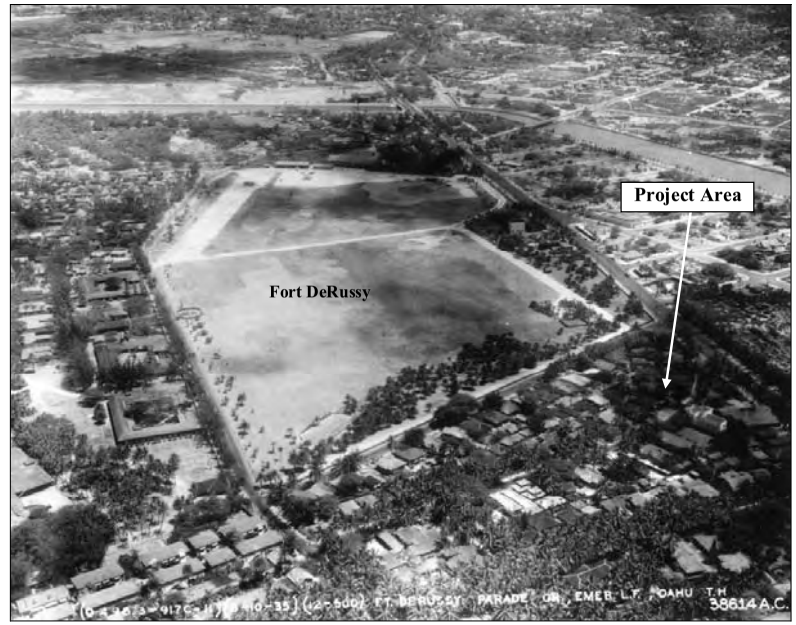


Figure 10. 1935 aerial photograph showing the project area and the surrounding areas of Waikīkī fully developed (US Army-Hawaii Archives)

2.1.10 1940s

The entrance of the United States into World War II following the Japanese bombing of Pearl Harbor on December 7, 1941 put on hold plans for the development of Waikīkī as a tourist destination. Until the war's end in 1945, the tourist trade was non-existent "…since the Navy travel to and from Hawai‘i and did not allow pleasure trips" (Brown 1989: 141). For the duration of the war, Waikīkī was transformed into a recreation area for military personnel.

> It was not the same Waikiki as before the war, though; barbed wire barricades now lined its sands, and there were other changes too. Fort DeRussy became a huge recreation center, with a dance hall called Maluhia that attracted thousands of men at a time. The Moana Hotel continued to function, but many other establishments and private homes in the area were taken over by the military. (Brown 1989: 141)

In August 1943, four cases of dengue fever, transmitted by the bite of infected *Aedes* mosquitoes, were reported in Waikīkī. During the epidemic that ensued, more than 1000 people were afflicted. On August 8, 1943, the military declared "out-of-bounds" the portion of Waikīkī bordered by the ocean, the Ala Wai Canal, and Ka‘iulani Avenue. "Without servicemen or tourists, Waikiki district seemed a deserted village" (Hodge and Ferris 1950:55).

Nearing the war's end, concerns began arising over the future of Waikīkī. An article in the *Honolulu Advertiser* of July 16, 1945 (sec. 1, pg.1) decried "honky-tonks" that had sprung up in Waikīkī during the course of the war, and asked: "Can anyone look at present-day Kalakaua Ave. – lined with makeshift curio shops, noisy 'recreation' centers, eyesores that pass under the name of lunchrooms and miscellany of 'joints' – and hope that Waikiki can stage a comeback [as a tourist destination]?"

2.1.11 1950s

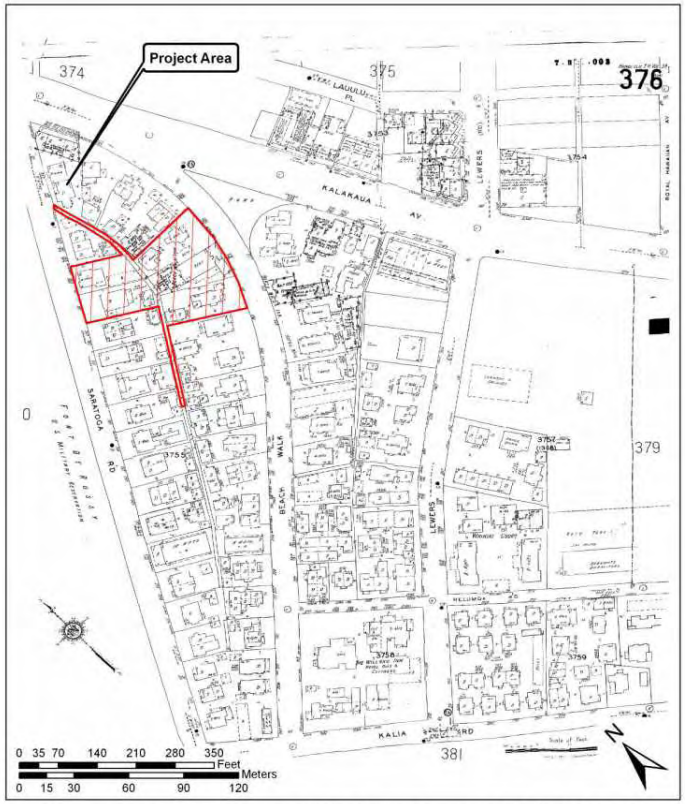
Fire insurance maps of 1951 (Figure 11) reveal changes throughout the present project area and the surrounding properties since the neighborhood was documented on the 1927 map (Figure 9). Retail establishments now fill the parcels along Kalākaua Avenue. Rooming houses and apartments appear on parcels along Saratoga Road, Beach Walk, and Lewers Road. Many of the houses shown on the 1927 map have now been divided into duplexes and triplexes.

By the mid-1950s there were more than fifty hotels and apartments from the Kālia area to the Diamond Head end of Kapi‘olani Park. Located within and in the vicinity of the present project area were the Reef Hotel and Edgewater Hotel on Kālia Road, the Ainahau apartments at 260 Lewers Road, the Breakers apartment-hotel at 250 Beachwalk, the Coconut Grove at 205 Lewers Rd., the Hawaiiana Hotel at 260 Beachwalk, the Leialoha Hotel at 233 Beachwalk, the Malihini Hotel at 217 Saratoga Rd., the Marjo apartment-hotel at 342 Lewers Rd., the Polynesian Hotel at 314 Beachwalk, and the Polynesian apartment-hotel at 339 Saratoga Rd.

Development of hotel properties in Waikīkī during the 1950s raised concern over public rights of way for access to the Waikīkī beach, which like all of Hawai‘i's beaches is public from the ocean to the high water mark. An article in the *Honolulu Star-Bulletin* of January 16, 1957 (pg.10) noted that there were no public rights of way to the beach for "nearly a half mile strip in

the heart of Waikiki" from "the Diamond Head side of the Surfrider Hotel to the Ewa side of the Halekulani Hotel."

The lack of public access ways to the beach was of real concern since the population, by the mid-1950s, was not limited to transient tourists but also included 11,000 permanent residents living in 4,000 apartments in stucco or frame buildings. As the 1951 fire insurance map indicates, many of these apartment buildings were located in and around the current project area.



Map georeferenced to the 1998 Honolulu USGS 7.5 ' minute quadrangle UTM NAD 83 Zone 4N

Figure 11. 1951 fire insurance map with parcels comprising present project area indicated

2.2 Summary

Historical documentation indicates that, at the mid-nineteenth century, within the present project area were two fishponds, Loko Kapu‘uiki and Loko Ka‘ohai, that were part of the royal fishpond complex of the Kālia area. Some high ground existed in the project area, primarily under the existing parking structure in parcel 048. A small berm or causeway shown on an 1881 map by S.E. Bishop also divided part of Loko Ka‘ohai along the northern boundary of the project area.

Evidence from nineteenth-century documents (the writings of John Papa ‘Ī‘ī, Māhele records, and an 1881 map) indicates that a trail from Honolulu to Waikīkī and beyond ran *makai* of the project area. It is likely that this trail was the traditional Hawaiian route through Waikīkī.

During the second half of the nineteenth century the Kālia fishponds, including Loko Ka‘ohai, were leased to and operated by Chinese immigrants. An early indication of Waikīkī’s future, *makai* of the project area, the Saratoga Baths opened on the site of the present Outrigger Reef on the Beach. Despite these changes, the Hawaiians of the Kālia area apparently were not completely displaced in the latter 1800s since several Hawaiian fishermen were recorded as living in Kālia during the 1890s.

During the first decades of the twentieth century, the current project area would be among the first developed lands of Waikīkī. Loko Kapu‘uiki would be filled for the creation of Ft. DeRussy and the two Loko Ka‘ohai were filled to create the Beach Walk tract in 1911. In subsequent decades, the project area was among an enclave of individual residences – typically cottages – and apartment complexes. In the 1950s, construction began on the first large hotel structures that today surround the project area.

Section 3 Previous Archaeological Research

The *ahupua‘a* of Waikīkī, in the centuries before the arrival of Europeans, was an intensely utilized area, with abundant natural and cultivated resources, that supported a large population. In the nineteenth and early twentieth centuries, after a period of depopulation, Waikīkī was reanimated by Hawaiians and foreigners residing there, and by farmers continuing to work the irrigated field system, which had been converted from taro to rice. Farming continued up to the first decades of the twentieth century until the Ala Wai Canal drained the remaining ponds and irrigated fields. Remnants of the pre-contact and historical occupation of Waikīkī have been discovered and recorded in archaeological reports, usually in connection with construction activities related to urban development, or infrastructural improvements. These discoveries, which have occurred throughout Waikīkī, have included many human burials, traditional Hawaiian and historic, as well as pre-contact Hawaiian and historic cultural deposits. As previously stated, the project area, and most of coastal Waikīkī, is underlain by Jaucus Sands (JaC) (Foote et al. 1972). On several Hawaiian islands, and indeed throughout Waikīkī, Jaucas sands have been documented to contain traditional Hawaiian burials. A list of archaeological projects conducted in the Waikīkī area is presented in Table 1 with the location of most shown in Figure 12. A supplementary listing of burial Waikīkī finds held in the osteological collections of the Bernice Pauahi Bishop Museum is presented in Table 2. A discussion of projects focusing on burial finds follows.

N.B. Emerson reported on the uncovering of human burials during the summer of 1901 on the property of James B. Castle, the site of the present Elks Club, in Waikīkī during excavations for the laying of sewer pipes (Emerson 1902:18-20). Emerson noted:

> The soil was white coral sand mixed with coarse coral debris and sea-shells together with a slight admixture of red earth and perhaps an occasional trace of charcoal. The ground had been trenched to a depth of five or six feet, at about which level a large number of human bones were met with, mostly placed in separate groups apart from each other, as if each group formed the bones of a single skeleton. Many of the skulls and larger bones had been removed by the workmen before my arrival, especially the more perfect ones. (Emerson 1902:18)

Emerson’s report on the find describes the remains of at least four individuals, all presumed to be Hawaiian. Associated burial goods were also exposed during excavation; these included “a number of conical beads of whale-teeth such as the Hawaiians formerly made” and “a number of round glass beads of large size.” The glass beads “can be assigned with certainty to some date subsequent to the arrival of the white man” (Emerson 1902:19). Also located with the beads was “a small sized *niho-palaoa*, such as was generally appropriated to the use of the chiefs” which had been “carved from the tooth of the sperm-whale” and which was “evidently of great age” (Emerson 1902:19).

It is widely assumed that at the time of the construction of the Royal Hawaiian Hotel that many human burials and other archaeological finds were encountered. Kanahele (1995:99) writes of an “‘*ulu maika* course was part of the royal sports complex of Kahuamokomoko in Helumoa”

Table 1. Previous Archaeological Investigations in Waikīkī Ahupua‘a

Reference	Type of Investigation	General Location	Findings
Emerson 1902	Burial recovery account	Present Elks Club	At least four individuals, all presumed to be Hawaiian and associated burial goods
McAllister 1933	Island-wide survey	All of O‘ahu	Waikīkī listed as Site 60
1963 Bishop Museum (cited in Neller 1984)	Bishop Museum burial recovery	2431 Prince Edward Street	Two + individuals from a construction trench
Honolulu Star-Bulletin; 1963; Yost 1971	Burial recovery account	Present Outrigger Canoe Club	27 Burials
1964 Bishop Museum Site Files	Burial recovery account	Fronting the Surfrider Hotel	4 burials?
1976 Bishop Museum Site Files	Burial recovery account	Hale Koa Hotel	Six burials
Nakamura 1979	History Graduate Thesis	Waikīkī	History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century
Neller 1980	Monitoring Report	Kālia Burial Site: Hilton Hawaiian Village	Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890’s, no prehistoric Hawaiian sites
Bishop Museum 1981	Testing, Excavations, & Monitoring	Halekulani Hotel	Intact cultural deposits found
Neller 1981	Reconnaissance Survey	Halekulani Hotel	Limited background research on area
Acson 1983	Historical Research	‘Ewa to Diamond Head	Nine walks through Waikīkī, photos, maps and historical info
Davis 1984	Archaeological and Historical Investigation	Halekulani Hotel	48 historic and prehistoric features excavated with six human burials reported
Neller 1984	Informal Narrative Report	Paoakalani Street	Recovery of seven human skeletons at construction site
Center for Oral History 1985	Oral Histories, Volumes I-IV	Waikīkī	Oral Histories of Waikīkī, 1900-1985, Volumes I-IV

Reference	Type of Investigation	General Location	Findings
1985 Beardsley, and Kaschko 1997	Archaeological monitoring and data recovery	Pacific Beach Hotel Office Annex	2 burials and cultural deposits
Griffin 1987	Burial Recovery Report	Along Kalākaua Ave. near corner of Kai‘ulani St.	Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation
SHPD 1987	Burial, Recovery Report	Kalākaua Ave. and Ka‘iulani Street	From excavation adjacent to Moana Hotel (site -9901)
Bath, and Kawachi 1989	Burial, Recovery Report	Ala Wai golf Course	2 burials
Davis 1989	Reconnaissance Survey & Historical Research	Fort DeRussy	Fishponds and other features are buried in this area. Sites -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit
Riford 1989	Background Literature Search	TMK: 2-6-014:039	List of literature pertaining to Waikīkī area
Rosendahl 1989	Inventory Survey, Prelim. Report	Fort DeRussy	Historic artifacts, no human remains
Athens 1990	Letter	TMK: 2-6-023:025	Letter to SHPD listing human remains at IARII lab from Pacific Beach Hotel, and Barbers Point Generating Station
Hurst 1990	Historical Literature Search	Waikikian Hotel	Background and planning document. No fieldwork was done
Chigioji 1991	Assessment	2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 & 42-45	Formerly a corner of the ‘Āinahau estate; remainder of parcels, former ‘auwai, kalo and rice fields; test excavations and specific sampling strategy recommended
Davis 1991	Monitoring Report	Fort DeRussy	See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century
Kennedy 1991	Monitoring Report	TMK: 2-6-022:014 IMAX theatre location	Pollen and bulk-sediment ^{14}C samples from ponded sediments were recovered. The three ^{14}C dates and pollen sequence were inverted

Reference	Type of Investigation	General Location	Findings
SHPD 1991	Public Inquiry	TMK: 2-6-024:036	Bones were determined to be non-human and part of the extensive fill material present
Simons, et al. 1991	Interim Field Study, Monitoring & Data Recovery	Moana Hotel Area	8 burials, preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered
Hurlbett, et al. 1992	Monitoring Report	TMK: 2-6-008:001	Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area
Pietrusewsky 1992a	PA Report	Moana Hotel	Right half of human mandible found by hotel guest
Pietrusewsky 1992b	PA Report	Lili‘uokalani Gardens Site, Hamohamo	Human Remains from the Lili‘uokalani Gardens Site, Hamohamo, Waikīkī, O‘ahu
Rosendahl 1992	Monitoring Report	Hilton Hawaiian Village	Identified12 historic refuse pits, 3 historic to modern trenches
Streck 1992	Memorandum for Record	Fort DeRussy	Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992
Cleghorn 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Remains of one human individual, mandible identified
Dagher 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Human remains of at least one person identified, excavation recommended.
Dega, and Kennedy 1993	Inadvertent Discovery of Remains	Waikīkī Aquarium	Discovery of unidentified bone fragments, all remains turned over to SHPD
Hammatt, and Chiogioji 1993	Archaeological Assessment	16-Acre Portion of the Ala Wai Golf Course	Not associated with any know surface archaeological site, however prehistoric and early historic occupation layers associated with *lo ‘i* system remain intact below modern fill. Specific sampling strategy and potential burial testing recommended
Carlson, et al. 1994	Report of Human Remains	Realignment of Kālia Road, Fort DeRussy	Approximately 40 human burials (the majority were recovered in a large communal burial feature & a cultural enriched layer that contained postholes

Reference	Type of Investigation	General Location	Findings
Maly, et al. 1994	Archaeological and Historical Assessment Study	Convention Center Project Area	Recommend subsurface testing to determine presence or absence of cultural deposits and features
McMahon 1994	SHPD Burial Report	Intersection of Kalākaua and Kuamo‘o Streets	Inadvertent Burial Discovery: misc. bones uncovered in back dirt pile during construction. Follow up by CSH
Hammatt, and Shideler 1995	Sub-surface Inventory Surface	Hawai‘i Convention Center Site, 1777 Kalākaua Ave.	No further work recommended
Jourdane 1995	Inadvertent Discovery of Human Remains	Paoakalani Avenue	Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel
Simons, et al. 1995	Data Recovery Excavations	Fort DeRussy	Historic and prehistoric artifacts, and midden materials collected from 7 occupation layers. 6 prehistoric cultural features recorded: ‘auwai bunds and channels, fishpond walls and sediments, a possible lo‘i, and hearths
Cleghorn 1996	Inventory Survey	TMK: 2-6-016:23, 25, 26, 28, 61, 69	7 backhoe trenches excavated, no sites located
Grant 1996	Historical Reference	Waikīkī	Historical information about Waikīkī prior to 1900
Hammatt, and Shideler 1996	Data Recovery	Hawai‘i Convention Center Site	No clear evidence that Kuwili Pond sediments present in project area; no further work recommended
McDermott, et al. 1996	Inventory Survey	‘Āinahau Estate	Buried remnants of ‘auwai and lo‘i and human burial found. ^{14}C dates
Denham, et al. 1997	Data Recovery Report	Fort DeRussy	Excavations conducted at fishponds, ^{14}C dates mid-17th C.
Denham, and Pantaleo 1997	Monitoring and Excavations Report	Fort DeRussy	Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ^{14}C dates
Beardsley, and Kaschko 1997	Monitoring and Data Recovery Report	Pacific Beach Hotel Office Annex	Traditional Hawaiian cultural deposits and 2 human burials. 3 ^{14}C dates
Hammatt, and Chiogioji 1998	Assessment	King Kalākaua Plaza Phase II	No surface archaeological sites, documented human burials, presence of subsurface cultural deposits (both of pre-contact Hawaiian and historic provenance)

Reference	Type of Investigation	General Location	Findings
Hammatt, and McDermott 1999	Burial Disinterment Plan and Report	Kalākaua Avenue	Two human burials found
Perzinski, et al. 1999	Monitoring Report	Along Ala Wai Blvd., Kalākaua Ave., Ala Moana Blvd., & ‘Ena Rd.	Two human burials found (1 preceding monitoring); pockets of undisturbed layers still exist. Burial #2 previously disturbed
Rosendahl 1999	Interim Report: Inventory Survey	Fort DeRussy	This area is part of the old shoreline
Hammatt, and Chiogioji 2000	Archaeological Assessment	Honolulu Zoo Parcel	Majority of zoo parcel unlikely to yield significant cultural deposits. However, strong possibility of significant subsurface cultural deposits in the SW portion. Monitoring is recommended in this area
LeSuer, et al. 2000	Inventory Survey	King Kalākaua Plaza Phase II	Site -5796 has been adversely affected by land alteration of the project area. Site -4970, has been adequately documented
Perzinski, et al. 2000	Burial Findings	Kalākaua Ave. between Kai‘ulani & Monsarrat Avenues	44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820
Cleghorn 2001 a & b	Mitigation	Burger King Construction Site	Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC’s store
Corbin 2001	Inventory Survey	Hilton Waikikian Property	No arch. sites were found during excavations of the area
Elmore, and Kennedy 2001	Burial Report	Royal Hawaiian Hotel	Human remains found during trench excavations for conduit. The in situ remains were left in place, while the disturbed remains were re-interred with the others
McGuire, and Hammatt 2001	Cultural Assessment for Waikīkī Beach Walk Project	Along Lewers St., Beach Walk, Kālia Rd. & Saratoga Rd.	Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area
Perzinski, and Hammatt 2001a	Monitoring Report	Kapi‘olani Bandstand	A charcoal layer was observed, concentrated on the SW side of the bandstand; recovered indigenous basalt lamp with a handle, from the SE end of the bandstand

Reference	Type of Investigation	General Location	Findings
Perzinski, and Hammatt 2001b	Monitoring Report	Kapi‘olani Park	No cultural layer, artifacts, midden or human burials were encountered during the excavations
Perzinski, and Hammatt 2001c	Monitoring Report	Kalākaua Avenue from the Natatorium to Poni Mo‘i Road	No cultural layer, artifacts, midden or human burials were encountered during the excavations
Rosendahl 2001	Assessment Study	Outrigger Beach Walk	Assessment of previous archaeology and historical literature
Winieski, and Hammatt 2001	Monitoring Report	TMK: 1-2-6-025:000	There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area
Borthwick, et al. 2002	Inventory Survey	71,000 sq. ft. parcel, TMK: 2-6-016:002	No burials were found during testing; absence of dry jaucas sand deposits indicate that burial finds are unlikely in project area
Bush, and Hammatt 2002	Monitoring Report	Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.	Encountered 4 human burials, probably pre-contact Native Hawaiians; several historic trash pits; entire pig within an imu pit (estimated date, A.D. 1641-1671); gleyed muck associated with former ponds
Calis 2002	Monitoring Report	Lemon Road	No historic deposits, major previous disturbance
Elmore, and Kennedy 2002	Monitoring Report	Fort DeRussy	No findings
Mann, and Hammatt 2002	Monitoring Report	Lili‘uokalani Avenue and Uluniu Avenue	5 burial finds of 6 individuals; two historic trash pits
Putzi, and Cleghorn 2002	Monitoring Report	Hilton Hawaiian Village	No findings during monitoring of trench excavations for sewer connections
Winieski, Perzinski, Shideler, et al. 2002a	Monitoring Report	Kalākaua Ave. between Ka‘iulani and Monsarrat Avenues.	44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, & charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized muliwai Kukaunahi also observed

Reference	Type of Investigation	General Location	Findings
Winieski, Perzinski, Souza, et al. 2002b	Monitoring Report	Kūhiō Beach	Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall
Bush, et al. 2003	Monitoring Report	International Marketplace	Historic trash found
Tome, and Dega 2003	Monitoring Report	Waikīkī Marriot	One isolated not in situ possible human bone fragment found. Recommends monitoring during future work
Tulchin, and Hammatt 2003	Archaeological & Cultural Impact Assessment	2284 Kalākaua Ave.	Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing
Chiogioji, et al. 2004	Archaeological Inventory Survey	Tusitala Vista Elderly Apartment	SIHP sites -6682, -6705, -6706, and –6707 including human remains, remnants of the Ainahau Estate and agricultural sites
Freeman, et al. 2005	Archaeological Inventory Survey	Hobron Lane	Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment
O’Hare, et al 2005	Archaeological Inventory Survey	Kaio‘o Drive	Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded
O’Leary, Chiogioji, Borthwick, et al. 2005	Archaeological Inventory Survey	1-Acre Parcel, 2284 Kalākaua Avenue (former Waikiki 3 Theater)	1 burial encountered
O’Leary, Chiogioji, Bush, et al. 2005	Archaeological Assessment	0.5-Acre Royal Kāhili Condo	No significant finds
Bell, and McDermott 2006	Archaeological Inventory Survey	Allure Waikīkī Development (former Wave Waikiki location),	2 human burials and a cultural deposit
Hammatt, and Shideler 2006a	Archaeological Assessment	Two Parcels at the Corner of Kūhiō and Kapahulu Avenues	No significant finds, study area abuts former Ku‘ekaunahi Stream (now overlain by Kapahulu Avenue)

Reference	Type of Investigation	General Location	Findings
Hammatt, and Shideler 2006b	Archaeological Assessment	0.015-Acre Parcel at the Corner of Kūhiō and Kapahulu TMK: 2-6-027:052	No significant finds, study area abuts former Ku‘ekaunahi Stream (now overlain by Kapahulu Avenue)

Table 2. References to Burial Finds in Waikīkī from the Bishop Museum NAGPRA Inventory

Date	Account	Source
1913	…two individuals from Waikīkī…	FR* page 1; BPBM records indicate this was ID No OA0002 & 0003 from the Sacred Hearts Convent, Waikīkī
1916	…one individual from Waikīkī…	FR* page 2; BPBM records indicate this was ID No OA009 a “sand burial”
1917	“from unknown location in Waikiki”	BPBM records indicate this was ID No OA0012 (no details)
1923	…one individual from the ‘Āinahau district, Waikīkī…	FR* page 2; BPBM records indicate this was ID No OA0018 “found by Hawaiian Dredging Company by dredge Kewalo”
1923	…five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic…	FR* page 2; BPBM records indicate this was ID Nos OA0019 – OA0023 logged in on October 1923
1926	…one individual from Waikīkī…found during house construction	FR* page 3; BPBM records indicate this was ID No OA0087 from a residence in Waikīkī
1927	…one individual from Waikīkī…	FR* page 3
1950	3207 Noela Drive “Found at rear of donor’s property during excavation	BPBM records indicate this was ID No OA0211 and OA0212
1955	…two individuals from Waikīkī…	FR* page 7; BPBM records indicate this was ID No OA 0315 discovered at the Reef Hotel Waikiki
1957	…nine individuals from Waikīkī…	FR* page 8; BPBM records indicate this was ID Nos OA0391 to OA0402 from Dad Center located along Kalākaua Avenue
1961	…one individual from Waikīkī…	FR* page 8; BPBM records indicate this was ID No OA0419 from 331 Saratoga Avenue
1962	…one individual from Waikīkī…	FR* page 9; BPBM records indicate this was ID No OA0421 “from sand burial near Reef Hotel”
1963	…five individuals from Waikīkī…	FR* page 9; BPBM records indicate this was ID No OA0424 “found on Edgewater Drive near Reef Hotel” [it would be atypical for the BPBM to assign one ID No. to 5 burials]

Date	Account	Source
1963	…96 individuals from Waikīkī…[donated by Bowen]	FR* page 9; BPBM records indicate this was ID Nos OA0425 to OA0455 “from Old Outrigger Canoe Club Premises” Note: Bishop Museum records from 1963 specify the finds donated by Robert N. Bowen on January 22, 1963 were from “the Old Outrigger Canoe Club Premises” However the 1/24/63 *Honolulu Advertiser* article concerns burial finds at the present club location by the Elk’s Club
1964	…four individuals from Waikīkī…	FR* page 9; BPBM records indicate this was ID No OA0464 “from site on beach in front of old Outrigger Canoe Club” [it would be atypical for the BPBM to assign one ID No. to 4 burials]
1965	“Human remains collected from San Souci Beach, Waikiki”	BPBM records indicate this was ID No OA0633
1966	Two accessions from 2431 Prince Edward Street	BPBM records indicate this was ID No OA0462 & OA0467 from *‘ewa* side of lot *makai* of Prince Edward Street
1967	…one individual from Waikīkī…	FR* page 11; BPBM records indicate this was ID No OA0516 from the “Tahiti by Six” at the International Market Place
1970	…eight individuals from Waikīkī…[donated] by the Sheraton Hawai‘i Corp.…recovered during excavations for tank construction…	FR* page 11; BPBM records indicate this was ID No OA0522 on Sheraton Hawai‘i Corp Property logged in on 3/6/1970
1981	…eight individuals from Waikīkī…[donated] by Bertell Davis	FR* page 12; BPBM records indicate this was ID Nos OA0565 to OA0571 “from unknown location in Waikiki; also OA0572 “recovered through archaeological excavation at the Halekulani hotel, Waikiki
1996	…one individual from Waikīkī…acquired during the early 1900s	FR* page 14

FR* = Federal Register January 28, 1998 (Volume 63, Number 18)

Previous Archaeology Map on the 1998 Honolulu USGS 7.5 ' minute quadrangle UTM NAD 83 Zone 4N

Figure 12. U.S. Geological Survey topographic map, showing previous archaeological survey areas in Waikīkī

and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *‘ulu maika* discs were found.” It seems highly probable that the “five individuals from Helumoa, Waikīkī, O‘ahu” that were collected by Kenneth P. Emory of the Bishop Museum in October of 1923 and reported as “victims of the 1853 smallpox epidemic” came from construction related to the Royal Hawaiian Hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 2; BPBM records indicate this was ID Nos OA0019 – OA0023).

In the 1920s and 30s the first systematic archaeological survey of O‘ahu was conducted by J. C. McAllister (1933). He recorded four *heiau* (temples), three of which were located at the *mauka* reaches of Waikīkī Ahupua‘a in lower Mānoa Valley. The fourth *heiau* – Papa‘ena‘ena - was located at the foot of Diamond Head crater in the environs of the present Hawai‘i School for Girls. Papa‘ena‘ena Heiau is traditionally associated with Kamehameha I, who was said to have visited the *heiau* before setting off to battle for Ni‘ihau and Kaua‘i in 1804. Five years later, according to John Papa ‘Ī‘ī, Kamehameha placed at Papa‘ena‘ena the remains of an adulterer - "all prepared in the customary manner of that time" (‘Ī‘ī 1959:50-51).

In 1963, two human skulls and other human remains were discovered in a construction trench at 2431 Prince Edward St. (Bishop Museum site Oa-A4-23, cited in Neller 1984).

Multiple burials were encountered in 1963 during excavation for the construction of the present Outrigger Canoe Club at the Diamond Head end of Kalākaua Avenue. As reported in an article in the *Honolulu Star Bulletin* on Jan. 24, 1963:

> The Outrigger Canoe Club yesterday dedicated its new site [on land adjacent to and leased from the Elks Club], an ancient Hawaiian burial ground in Waikīkī. . .
>
> Robert Bowen of the Bishop Museum has been working closely with Ernest Souza, Hawaiian Dredging superintendent, on the removal of skeletons unearthed on the site, between the Colony Surf and the Elks Club. . . .
>
> Most of the bodies were buried in the traditional hoolewa position, with the legs bound tightly against the chest.
>
> One of the skeletons, Bowen said, shows evidence of a successful amputation of the lower forearm, indicating that the Hawaiians knew this kind of operation before the arrival of Europeans.
>
> The ages of the skeletons ranged from children to 40-year-old men and women. The average life span of the Hawaiians at the time was about 32 years. (*Honolulu Star-Bulletin*; Jan. 24, 1963:1A)

A total of 27 burials were encountered according to Yost (1971:28). Apparently, no formal archaeological report on the burials was produced.

Bishop Museum records show 31 accessions of human remains (ID No.s OA0425 to OA0455) donated by Robert N. Bowen on January 22, 1963 stating that they were all from “the Old Outrigger Canoe Club Premises” which suggests the former location by the Royal Hawaiian Hotel. However, the 1/24/63 *Honolulu Star Bulletin* article concerns burial finds at the present club location by the Elk’s Club. The *Federal Register* of January 28, 1998 (Volume 63, Number 18 page 4281) asserts that: “In 1963, human remains representing 96 individuals from Waikiki O‘ahu were collected and donated to the Bishop Museum by Robert N. Bowen. There is a

mystery here. The *Honolulu Star-Bulletin* and Yost accounts speak only of mass burials at the present Outrigger Canoe Club Premises (by the Elks Club) while the Bishop Museum records speak only of mass burials at the old Outrigger Canoe Club Premises (by the Royal Hawaiian) and the Federal Register provides no locational data within Waikīkī but gives a significantly greater number of individuals (96) than suggested in the Yost history of the Outrigger (which specifies 27 burials). Given the close relationships of the dates of the report of Bowen’s work on multiple burials at the present Outrigger Canoe Club (Jan. 24, 1963) and the date of accession of remains at Bishop Museum (Jan. 22, 1963), and noting that there is no account in the Bishop museum records of remains from the “new” Outrigger Canoe Club location, it appears most likely to us that all of the burials reported were actually from the present “new” Outrigger Canoe Club location. This remains uncertain.

In 1964, sand dune burials, a traditional Hawaiian mortuary practice, were revealed as beach sand eroded fronting the Surfrider Hotel (Bishop Museum Site Files).

It seems highly probable that “…eight individuals from Waikīkī…[donated] by the Sheraton Hawai‘i Corp….recovered during excavations for tank construction… in March 1970 were indeed associated with the initial construction of the hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 11; BPBM records indicate this was ID No OA0522 found on Sheraton Hawai‘i Corp Property logged in on 3/6/1970).

In 1976, during construction of the Hale Koa Hotel, adjacent to the Hilton Hawaiian Village Hotel, six burials were unearthed, five of apparent prehistoric or early historic age, and one of more recent date (Bishop Museum Site Files).

In 1980, three burials were exposed at the Hilton Hawaiian Village during construction of the hotel’s Tapa Tower. Earl Neller of the (then named) State Historic Preservation Program was called in upon discovery of the burials and conducted fieldwork limited to three brief inspection of the project area. Neller’s (1980) report noted:

> The bones from three Hawaiian burials were partially recovered; one belonged to a young adult male, one a young adult female, and one was represented by a single bone. An old map showed that rapid shoreline accretion had occurred in the area during the 1800s, and that the beach in the construction area was not very old. It is possible the burials date back to the smallpox epidemic of 1853. It is likely that burials will continue to be found in the area. It is also possible that early Hawaiian sites exist farther inland, beneath Mō‘ili‘ili, adjacent to where the shoreline would have been 1000 years ago. (Neller 1980:5)

Neller also documented the presence of trash pits, including one from the 1890s, which contained "a large percentage of luxury items, including porcelain tableware imported from China, Japan, the United States, and Europe" (Neller 1980:5). He further notes:

> It is suspected that other important historic archaeological sites exist in the highly developed concrete jungle of Waikīkī, with discrete, dateable trash deposits related to the different ethnic and social groups that occupied Waikīkī over the last 200 years. (Neller 1980:5)

Between December 1981 and February 1982, archaeologists from the Bishop Museum led by Bertell Davis conducted a program of excavations and monitoring during construction of the new

Halekūlani Hotel (Davis 1984). Six human burials were recovered along with “animal burials [and] cultural refuse from prehistoric Hawaiian firepits, and a large collection of bottles, ceramics, and other materials from trash pits and privies dating to the late 19th century” (Davis 1984:i). Age analysis of volcanic glass recovered from the site led Davis to conclude: “For the first time we can now empirically date . . . settlement in Waikīkī to no later than the mid-1600s” (Neller 1980:5). Just as significant to Davis was the collection of historic era material at the Halekūlani site; he states:

> [The] Halekūlani excavations clearly demonstrate...that there is a definite need to consider historic-period archaeology as a legitimate avenue of inquiry in Hawaiian research. Furthermore, archaeology in the urban context can yield results every bit as significant as in less developed areas. Development in the 19th and early 20th centuries clearly has not destroyed all archaeological resources in Waikīkī, Honolulu, or in any of the other urbanized areas of Hawai‘i. (Neller 1980:5)

In 1983, at the Lili‘uokalani Gardens condominium construction site, seven traditional Hawaiian burials were recovered (Neller 1984). This had been the site of a bungalow owned by Queen Lili‘uokalani at the end of the nineteenth century. In addition to the burials, the site contained plentiful historic artifacts, and a pre-historic cultural layer pre-dating the burials.

In 1985, International Archaeological Research Institute, Inc. performed archaeological monitoring and data recovery at the Pacific Beach Hotel Office Annex (Beardsley and Kaschko 1997). Two traditional Hawaiian burials were discovered and removed. Intact buried traditional Hawaiian cultural deposits, including a late pre-contact habitation layer, contained pits, firepits, post molds, artifacts, and food debris. The artifacts included basalt and volcanic glass flakes and cores, a basalt adze and adze fragments, worked pearl shells, a coral file and abraders, and a pearl shell fishhook fragment. Additionally, a late nineteenth century trash pit was discovered, which contained a variety of ceramics, bottles, and other materials.

During 1985 and 1986, archaeologists from Paul H. Rosendahl, Ph.D. Inc. conducted archaeological monitoring at the site of the Mechanical Loop Project at the Hilton Hawaiian Village, Waikīkī. Much of this project area was disturbed by historic and modern construction and modification. Fifteen subsurface features were uncovered during the monitoring, all of which were determined to be historic trash pits or trenches. The dating of these features was based on dating the artifactual material they contained. All 15 features are thought to post-date 1881 based on this artifact analysis. Three partial burials were reported by Neller (1980) (see above). No additional burials were encountered during the PHRI field work (Hurlbett et. al. 1992).

In 1987, a human burial was discovered and removed at the intersection of Kalākaua Avenue and Ka‘iulani Street during excavations for a gas pipe fronting the Moana Hotel (Griffin 1987). In1988, the Moana Hotel Historical Rehabilitation Project(Simons et. al. 1991) encountered human remains that amounted to at least 17 individuals. Based on stratigraphic association these burials were interred over time as the land form at the site changed. The sediment surrounding these burials yielded traditional midden and artifact assemblages. The burials and human remains were found in the Banyan Court and beneath the hotel itself.

In 1989, skeletal remains were unearthed on the grounds of the Ala Wai Golf Course during digging of an electrical line trench for a new sprinkler system. The trench had exposed a pit containing two burials (Bath and Kawachi 1989:2). The report suggests that one of the burials may have been disturbed earlier during grading for the Territorial Fair Grounds. The osteological analysis included in the report concludes that both sets of remains "appear ancient" (Bath and Kawachi 1989: 2)

Davis’ (1989, 1991) excavation and monitoring work at Fort DeRussy documented substantial subsurface archaeological deposits, prehistoric, historic, and modern. These deposits included buried fishpond sediments, ‘*auwai* [irrigation ditch] sediments, midden and artifact enriched sediments, structural remains such as post holes and fire pits, historic trash pits, and a human burial. Davis’ (1991) report documents human activity in the Fort DeRussy beachfront area from the sixteenth century to the present.

The work at Fort DeRussy continued in 1992 when BioSystems researchers built upon Davis’ work (Simons et al. 1995). BioSystems research documents the development and expansion of the fishpond and ‘*auwai* system in this area. The ‘*auwai* system was entered on the State Inventory of Historic Places (SIHP) as State Site 50-80-14-4970. As indicated on the 1881 map by S. E. Bishop discussed above, this ‘*auwai* enters the Fort DeRussy grounds through the present project area. Remains of the fishpond and ‘*auwai* deposits, as well as habitation deposits, were documented below modern fill deposits. This research, along with that of Davis (1991), clearly demonstrates that historical document research can be an effective guide to locating late prehistoric/early historic subsurface deposits, even amidst the development of Waikīkī.

In 1992, Hurlbett et al. (1992) conducted additional monitoring and testing in this same area as Neller (1980). The state site -2870 was given to the three burials first found by Neller. Additional subsurface features, postdating 1881, were found during trenching operations.

The realignment of Kālia Road at Fort DeRussy in 1993 uncovered approximately 40 human burials. A large majority of these remains were recovered in a large communal burial feature (Carlson et al. 1994). The monitoring and excavations associated with this realignment uncovered a cultural enriched layer that contained post holes.

In 1993, during construction activities at the Waikīkī Aquarium, directly adjacent to the present project area, fragmentary human remains were discovered scattered in a back dirt pile, although no burial pit was identified (Dega and Kennedy 1993).

On April 28, 1994, an inadvertent burial discovery was made during excavation for a water line at the intersection of Kalākaua Avenue and Kuamo‘o Street (just *mauka* of Fort DeRussy). These remains represented a single individual (McMahon 1994).

In 1995, the remains of one individual were discovered in situ during construction activities on Paoakalani Street, fronting the Waikīkī Sunset Hotel (Jourdane 1995).

In 1996, Pacific Legacy, Inc. conducted an archaeological inventory survey of the block bounded by Kalākaua Avenue, Kūhiō Avenue, ‘Olohana Street, and Kālaimoku Street (Cleghorn 1996). The survey included excavation of seven backhoe trenches. The subsurface testing indicated that

> . . . this area was extremely wet and probably marshy. This type of environment was not conducive for traditional economic practices. . . . The current project area appears to have been unused because it was too wet and marshy. Several peat deposits, containing the preserved remains of organic plant materials were discovered and sampled. These deposits have the potential to add to our knowledge of the paleoenvironment of the area. (Cleghorn 1996:15)

The report concluded that no further archaeological investigations of the parcel were warranted since “no potentially significant traditional sites or deposits were found”, but cautioned of the “possibility, however remote in this instance, that human burials may be encountered during large scale excavations” (Cleghorn 1996:15).

In 1996, a traditional Hawaiian burial was discovered and left in place during test excavations on two lots at Lili‘uokalani Avenue and Tusitala Street (McDermott et al. 1996). Indigenous Hawaiian artifacts and historic artifacts were also found within that project area.

In 1997, during archaeological monitoring by CSH for the Waikīkī Force Main Replacement project, scattered human bones were encountered on ‘Ōhua Street (Winieski and Hammatt 2000). These included the proximal end and mid-shaft of a human tibia, a patella, and the distal end and mid-shaft of a femur. These remains occurred within a coralline sand matrix that had been heavily disturbed by previous construction, and by the on-going construction project. No precise location for the original burial site was identified.

In April 1999, two human burials were inadvertently encountered near the intersection of Ena Road and Kalākaua Avenue during excavation activities for the first phase of the Waikīkī Anti-Crime Lighting Improvements Project (Perzinski et al. 1999).

From July 1999 to October 2000, four sets of human remains were inadvertently encountered during excavation activities relating to the Waikīkī Anti-Crime Street Lighting Improvement project along portions of Kalākaua Avenue (Bush and Hammatt 2002). The first burial was encountered on Kalākaua Avenue, just before Dukes Lane and assigned State Site 50-80-14-5864. The burial was left in place however, and the light post was repositioned. The second burial was encountered at the intersection of Kalākaua Avenue and Ka‘iulani Avenue. Earlier, during archaeological monitoring for the water mains project, two burials were encountered in the immediate area of the second burial find; they were assigned state site 50-80-14-5856 features A and B. Due to the close proximity to the previously encountered burials, the second burial was assigned the same State Site 50-80-14-5856, and designated feature C. Burials 3 and 4 were recovered at the intersection of Kalākaua Avenue and Kealohilani, near an area of concentrated burials assigned State Site 50-80-14-5860 during monitoring for the water mains project. Consequently, burials 3 and 4 were also assigned State Site 50-80-14-5860, features U and V. In addition to human remains, pre-contact deposits, historic and modern rubbish concentrations, and pond sediments were also encountered.

From November, 1999, to May, 2000, 44 human burials, with associated cultural deposits, were encountered during excavation for a waterline project on Kalākaua Avenue between the Ka‘iulani and ‘Ōhua Avenues (Winieski, Perzinski, Shideler, et al. 2002). Except for previously disturbed partial burials in fill, the bulk of the burials were encountered within a coralline sand matrix. Additionally, a major cultural layer was found and documented.

From January 2000, to October 2000, 10 human burials were encountered during archaeological monitoring of the Kūhiō Beach Extension/Kalākaua Promenade project (Winieski, Perzinski, Souza, et al. 2002b). Six of these were located within a coralline sand matrix. The four others were partial and previously disturbed within fill. Additionally, a major cultural layer was found and documented, apparently part of the same major cultural layer associated with the waterline project between Ka‘iulani and ‘Ōhua Avenues.

In April 2001 human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore et al. 2001). Archaeological Consultants of the Pacific, Inc. was responsible for the documentation of the remainder of the burial and carrying out the instruction of DLNR/ SHPD. The burial and burial location were assigned State Site # 50-80-14-5937. The partially disturbed burial was encountered on the North side of the hotel in the spa garden. The burial was recorded as a post contact burial based on associated artifacts including one shell button found *in-situ* and three more shell buttons found in the disturbed material. A single drilled dog tooth was found also during excavation but could not be positively associated with the site.

On May 2nd and June 14th, 2001, two in situ and two previously disturbed human burials were encountered at the site of a new Burger King (Cleghorn 2001a) and an adjoining ABC Store (Cleghorn 2001b). The finds were located at the intersection of ‘Ōhua Street and Kalākaua Avenue (Cleghorn 2001a and 2001b). Because of their proximity to five burials encountered during the Kalākaua 16" Water Main Installation (Winieski, Perzinski, Shideler, et al. 2002a), they were included in the previously assigned State Site 50-80-14-5861. Three of these burials were recovered, and one was left in place. Volcanic glass fragments were found in association with one of the burials. A cultural layer was also observed which contained moderate to heavy concentrations of charcoal and fragments of volcanic glass. Historic era artifacts, including a bottle fragment, plastic and glass buttons, a ceramic fragment, and metal fragments were also encountered within fill materials.

In 2001 and 2002, CSH (Mann and Hammatt 2002) performed archaeological monitoring for the installation of 8- and 12-inch water mains on Uluniu Avenue and Lili‘uokalani Avenue. During the course of monitoring, a burial find, consisting of six individuals, were recorded within the project area. Four burial finds were recorded on Uluniu Avenue; three of these inadvertent finds were found in fill sediment. Due to the nature of the three burial finds in fill, it was concluded that no State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned State Site #50-80-14-6369. The fifth burial, consisting of two individuals in fill material, was recorded from Lili‘uokalani Avenue. Since three burials had been found in the immediate vicinity during a previous project (Winieski, Perzinski, Souza, et al. 2002b) and had been assigned to Site #50-80-14-5859, the two new individuals were recorded as Feature H of this previously recorded site.

In 2004, Cultural Surveys Hawai‘i conducted an archaeological inventory survey and cultural impact evaluation for the Ala Wai Gateway project site (Freeman et al. 2005). The project site comprised TMK 2-6-011:001, 002, 004, 32, 37, and 40, which are bounded by Ala Wai and Ala Moana boulevards, Hobron Lane, and Līpe‘epe‘e Street. Four historic properties were documented in the survey including human remains, a cultural layer and a fishpond remnant.

In 2005 Cultural Surveys Hawai‘i conducted an archaeological inventory survey of a 72,135 square foot (1.67 acre) project area on Kaio‘o Drive (TMK: [1] 2-6-012: 37, 38, 39, 40, 41, 42, 43, 44, 55, 56, 57) (O'Hare et al. 2005). One, Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.

Three areas of very high densities of burials have been previously reported from Waikīkī: in 1963 from the present Outrigger Canoe Club (apparently 96 burials – but see discussions above), in 1993 in a large communal burial feature uncovered during the realignment of Kālia Road at Fort DeRussy (approximately 40 human burials, Carlson et. al. 1994) and during a Kalākaua Avenue water line project near the intersection with Kealohilani Avenue (18 burials; Perzinski et al. 2000). It seems probable that additional areas with a high density of burials will be encountered in the future.

In summary, past archaeological research, from the beginning of the twentieth century to the present has produced evidence that traditional Hawaiian cultural deposits, historic trash deposits, and, most notably, human burials, do exist throughout the breadth of the Waikīkī area. It is of special concern that two to three burials were recorded by the Bishop Museum in the early 1960s, within or just outside the current project area. Two of these three were found near the ‘Ohana Reef Hotel, which was located on the corner of Kālia Road and Saratoga Road, within the southwestern corner of the current study area.

.

Section 4 Community Consultations

4.1 Results of the Prior Cultural Impact Evaluation for the Project Area

A Cultural Impact Evaluation was prepared by CSH for the project area in 2005 for a different project proponent, for a project that was not pursued (Chiogioji et al. 2005). Between this Cultural Impact Evaluation and the current study, the project area has not been developed or otherwise changed and the project area for these two independent projects corresponds exactly. The prior cultural study was designed to fulfill cultural consultation requirements pursuant to Hawai‘i Revised Statutes (HRS) Chapter 343 and the Office of Environmental Quality's Guidelines for Assessing Cultural Impacts, as well as to support the now defunct project's review under historic preservation review under HRS Chapter 6E-42 and HAR Chapter 13-284.

This prior cultural consultation effort sought information from individuals knowledgeable about the project area's history and past land use. The focus of this consultation was to identify ongoing traditional cultural practices and historic properties within the project area. In the course of this evaluation, no ongoing traditional cultural practices or concerns were identified for the study area. None of the community contacts queried for this assessment identified any on-going traditional cultural practices specifically within the project area.

Based on the Chiogioji et al. (2005) investigation, the potential to disturb Native Hawaiian burials represent the project's only potential adverse impact upon native Hawaiian historic properties. Some community members expressed concern for burials, though others focused only on the history of the fishpond, Loko Ka‘ohai. Consulted *kama‘āina* Clarence A. Medeiros Jr., indicated that it was highly likely that burials could be found in the project area because of the customary Hawaiian practice of burying family members within their *pa hale* (yard). Heidi Guth from the Office of Hawaiian Affairs expressed a desire to have *iwi* found during the inventory survey follow standard procedure with the O‘ahu Island Burial Council and recommended monitoring during construction. Van Horn Diamond, O‘ahu Island Burial Council Chair, noted that the Afong Family used to live in the area and were of Hawaiian descent. Consulted *kama‘āina,* Mrs. Paulette Ka‘anohi Kaleikini, indicated that her great-grandfather, Ialua, raised *moi,* a fish that was preferred by the chiefs, in a pond seen on a map provided for the cultural consultation (either Loko Ka‘ohai and Loko Kapu‘uiki).

4.2 Results of the Current Community Consultation

Throughout the course of the current assessment, an effort will be made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about traditional cultural practices specifically related to the project area. An initial effort was made by letter, e-mail, telephone and in person contact. In the majority of cases, letters along with a map and aerial photograph of the project area were mailed with the following text:

> At the request of First Round Pacific, LLC, Cultural Surveys Hawai‘i (CSH) is conducting a cultural impact assessment of a 0.70-acre project area in Waikīkī Ahupua‘a, Honolulu (Kona) District, Island of O‘ahu (TMK 2-6-003: 026, 027,

048, 049 and 058). The project site area is an approximately 30,376 square feet square foot property located near the north end of the elongated block bounded by Kālia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. The project area is presently a largely empty lot that includes a two-level parking garage, a permanent access easement and, until recent demolition, low-rise buildings, including the site of the Hula Hut Restaurant. The project area is proposed for development of a 34,500 square foot retail building comprising two floors of six leased retail and restaurant spaces on parcels 026 and 027. Ground disturbance associated with the retail project will be limited to these parcels and will include borings related to foundation pile installation and excavation related to the project area's development, to include structural footings, utility installation, and landscaping. Minor modifications to an existing parking structure on parcel 048 and surface improvements to the perpetual access easement, parcel 049, are also components of this project. Please see enclosed map and aerial photograph of the project area.

The purpose of this cultural study is to assess potential impacts to cultural practices as a result of future development in Waikīkī. We are seeking your *kōkua* and guidance regarding the following aspects of our study:

- **General history and present and past land use of the project area.**
- **Knowledge of cultural sites which may be impacted by future development of the project area - for example, historic sites, archaeological sites, and burials.**
- **Knowledge of traditional gathering practices in the project both past and ongoing.**
- **Cultural associations of the project area, such as legends and traditional uses.**
- **Referrals of *kūpuna* or elders and *kama'āina* who might be willing to share their cultural knowledge of the project area and the surrounding *ahupua'a* lands.**
- **Any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the project area.**

Several (3-5) attempts were made to contact individuals, organizations, and agencies apposite to the cultural impact assessment for Waikīkī. The results of all consultations are presented in Table 3. Excerpts from more extensive interviews specifically related to Waikīkī and its environs are presented in Section 5 below.

Table 3. Community Contacts

Name	Organization, Affiliation	Results
Apaka, Jeff	Waikīkī Neighborhood Board Subdistrict 2-Chair	CSH spoke to Mr. Akapa at the Waikīkī Neighborhood Board meeting on April 10, 2007. He was given materials and he said he would get back to CSH. On April 23, 2007, CSH sent a reminder email and a copy of the outreach letter. CSH also telephoned and talked to him. CSH spoke to Mr. Apaka by phone on May 6, 2007. After reviewing the project description and maps he shared that he has no relevant information specific to the project site.
Ayau, Edward Halealoha	Hui Malama O Nā Iwi O Hawai'I Nei	CSH sent an email to Mr. Ayau on March 5, 2007, including the community contact letter and maps of the project area. After no response to the initial email was received, CSH followed up by sending 3 reminder emails, the last sent on June 1, 2007. (Mr. Ayau has requested that CSH only send CIA review request letters by email.) The email was forwarded by Mr. Ayau to Ms. Paulette Ka'anohi Kaleikini. See Ms. Kaleikini's statement below
Chinen, Melanie	SHPD Burials Program-Burials Facilitator	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24, 2007. Additionally, CSH requested a list of Recognized Cultural Descendants of Waikīkī from the SHPD. In a visit to SHPD on February 6, 2007, Richelle Paresa (SHPD office clerk) stated that Ms. Chinen was reviewing the letter and list request, and will get back to CSH in the next few weeks. On March 2 and 6, CSH left messages for Richelle. On March 6, CSH spoke to Richelle who stated that it is extremely difficult to obtain a list of cultural descendants from SHPD or even to obtain a response from Ms. Melanie Chinen. She advised CSH to send an email request for the list and another request for review to Ms. Chinen. CSH sent an email to the SHPD on March 12, 2007.

Name	Organization, Affiliation	Results
Diamond, Van Horn	O‘ahu Island Burial Council Chair	CSH sent an email on March 13, 2007. CSH conducted a phone interview on April 3, 2007. Mr. Diamond shared the following: “When the Hawaiian Hut was opened, people had odd feelings about the area, like there were bad spirits there. They can be a little sensitive to the area. I would like to find someone who knows a little history of the place. People who performed at HH had problems.” Mr. Diamond suggested that CSH access the Hawaiian community to address the spiritual aspects of the project, and referred CSH to Kehaulani Kruse.
Harris, Cy K.	Cultural Descendant of Waikīkī	CSH sent a letter on May 17, 2007. CSH phoned May 22, 2007 and left a message. CSH called on May 29, 2007, and Mr. Harris supplied a statement provided in Section 5 below.

Name	Organization, Affiliation	Results
Kaleikini, Paulette Ka‘anohi	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. Ms. Kaleikini replied in an email sent on March 12 that CSH was welcome to re-publish the interview she gave for the prior cultural study conducted on the Beachwalk area of Waikīkī: The *‘āina* of Kālia was the birth sands of three generations of her *‘ohana* (family). Her siblings (8) were born there, her mother and all her siblings (8) were born there, and her mother’s father and his siblings (6) were born there. Mrs. Kaleikini’s great grandfather was George William Keaweamahi who built the houses where they were born and lived. Her great great-grandfather’s sister was Napua whose’s son was William Luther Moehonua who was the governor of Maui under Kalākaua and uncle to Kalākaua. He was also cousin to her great great grandfather (Ialua) and *kahu* (honored attendant, guardian) to Moehonua, his name was Kaaua. The fresh water pond that you see on the map was where her great great-grandfather, Ialua raised *moi* that was preferred by the chiefs, including Kamehameha I who was close relative to her *kūpuna.* Paulette’s *‘ohana* were *kahu* of the chiefs. Her *kūpuna* were also healers; as *kahu* usually are. They grew their own *lā‘au* (medicinal plants) on the *‘āina*. They also gathered *limu* from the ocean close by in the vicinity of what is now an R & R Resting place for the military. Often her mother would take her to the beach to gather *limu.* In a follow-up email sent to CSH on June 13, Ms. Kaleikini stated that she had visited the Kalia area over the weekend of June 9-10, and offered these additional comments: “I could no longer see the landscaped boundaries of Kalia ‘ili [subdivision of an *ahupua‘a*]. Kalia, the one hanau (the birth sands) of my grandfather, my mother and my siblings are lost under piles of concrete. Kalia is gone. It was a disgusting visit for me, it gripped my na‘au [heart, gut]. Kalamai i‘au [I’m sorry, My apologies], that's all I have to add.”

Name	Organization, Affiliation	Results
Keohokālole, Adrian K.	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH telephoned March 6, 2007, but the voice mailbox was too full to receive messages. CSH called on May 10, 2007, and was referred to Mr. Keohokālole's sister Emalia, who may have comments.
Keohokālole, Emalia E.	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH called on May 10, 2007, and was told by Ms. Keohokālole to send the letter again. She will be the one to call back as she does not like to receive calls at work. Ms. Keohokālole declined to give her number at home. CSH sent the letter again on May 11, 2007. No response.
Kini (Norman), Debbie P. K.	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH sent the letter again on May 17, 2007. No phone number listed.
Kruse, T. Kehaulani	O‘ahu Island Burial Council	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH left a phone message on March 6, 2007. CSH called on May 6, 2007. Ms. Kruse gave a statement. See Section 5 below.
McQuivey, Jace	O‘ahu Island Burial Council, Chair	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH left a phone message on March 6, 2007. CSH sent an email on March 12, 2007 and a reminder email on May 21, 2007. Mr. McQuivey referred CSH to Kehaulani Kruse, who has provided a statement.

Name	Organization, Affiliation	Results
Medeiros, Clarence A. Jr.	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. In a phone conversation on March 6, Mr. Medeiros shared with CSH that his primary concern is that proper SHPD procedures be followed if *iwi* are found in the project area. He gave CSH permission to re-publish his comments from the prior CIA: Mr. Medeiros shared that Kaleipaopao (*wahine*) was the Mahele Awardee of LCA 1436, 1.01 acres in Kālia. In Claim 1436 of Native Testimonies, Kaleipaopao claimed a houselot in Kālia and identified a stream at Kālia that she surrendered contestedly to Kekuanaoa. She identifies the Kaihikiapu Pond Waikīkī as belonging to Kekuanaoa. The stream being a source of water for *lo‘i kalo* (taro ponds) and a source of food is evidence of a native, traditional, and customary gathering source. It is possible that a *kapu* could have been placed on the fishpond, being exclusive to the *ali‘i*. Because of the customary Hawaiian practice of burying family members within their *pa hale* (yard), it is highly likely that Native Hawaiian burials may exist in this project site. Mr. Medeiros's Caucasian, Chinese, Hawaiian, Portuguese and Spanish predecessors lived and owned land through out Waikīkī. They were residents as well as owners of the *lo‘i kalo* and rice fields, employing foreigners to work the fields. Living on the land, the burials of these foreigners may also be found within the subject property. Legends of certain places and practices relating to Waikīkī can be found written in *oli* (chant) and *mele hula* (hula songs). Consultation of *kumu hula* (hula sources) could be another source of information.
Nāmu‘o, Clyde	Office of Hawaiian Affairs	See OHA letter below table
Nobrega, Malia	Waikīkī Hawaiian Civic Club	CSH sent a letter on March 5, 2007 and follow-up emails on March 12, May 6, and May 17, 2007
Norman, Carolyn D. K.	Cultural Descendant of Waikīkī	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH sent letter on May 11, 2007. No phone number listed.

Name	Organization, Affiliation	Results
Rose, Charles	Association of Hawaiian Civic Clubs-President	Mr. Rose was contacted on May 10, 2007 and informed CSH that he is not interested in contributing to this assessment.
Souza, William D.	Royal Order of Kamehameha, Kūhiō Chapter	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. CSH called on March 6, 2007. Mr. Souza requested that the information be emailed again. CSH sent an email on March 12, 2007 and left phone messages on May 6 and 10, 2007. CSH sent an email on May 17, 2007.
Tomcyzk, Pi'ikea L.	Waikīkī Hawaiian Civic Club-President	CSH sent a letter on January 22, 2007 and a letter with TMK revisions on January 24. The second letter was returned to CSH on 2/25. Several attempts were made to search for the club address and telephone number, as well as the personal number of Ms. Tomcyzk. No number is listed for the club as well as for Mr. Tomcyzk. No new address was found.

PHONE (808) 594-1888 FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD07/2884

February 21, 2007

Lisa Gollin
Cultural Surveys of Hawai'i, Inc.
P.O. Box 1114
Kailua, HI 96734

RE: Cultural Impact Assessment (CIA) for the First Round Pacific, LLC, Waikīkī, O'ahu, TMKs: (1) 2-6-003:026, 027, 048, 049 & 058

Dear Lisa Gollin,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 22, 2007, request for comments on the above-referenced project, which would include the construction of a new retail building in Waikīkī. OHA offers the following comments.

OHA appreciates the recognition that Cultural Impact Assessments (CIA) may include traditional cultural properties and historic sites, if they are associated with cultural beliefs. We therefore recommend that inclusion of a discussion of previous archaeological surveys in and around the subject project area, focusing on traditional sites, if any are present. Many burials have been found in and around the subject property. Also, we urge you to consult with the Burial Sites Program (State Historic Preservation Division) and the O'ahu Island Burial Council regarding the identity of recognized lineal and cultural descendents to nearby sets of remains.

OHA further requests that if the project by your client goes forward, should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions, please contact Jesse Yorck, Policy Advocate – Native Rights, at (808) 594-0239 or jessey@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

Figure 13.Review letter from the Office of Hawaiian Affairs (OHA)

Section 5 Summaries of *Kama'āina* "Talk Story" Interviews

Kama'āina and *kūpuna* with knowledge of the Waikīkī Ahupua'a and the area within the vicinity of the proposed 280 Beachwalk Retail Development project were invited to participate in "talk-story" sessions for the cultural impact assessment. The approach of Cultural Surveys Hawai'i Inc. to cultural impact studies affords those community contacts an opportunity to review transcriptions and/or interview notes and to make any corrections, deletions or additions to the substance of their testimony. Our interview selection process usually focuses on knowledgeable older individuals (*kūpuna*) who are often in ill health or of a mind not to be rushed. It is often the case that the coercive demands of time that drive the contemporary development process do not fit well with those who have memories of an earlier time.

Cultural Surveys Hawai'i Inc. employs an informed consent process and conducts semi-structured interviews with community contacts (Bernard 2005). To assist in discussion of natural and cultural resources and any traditional cultural practices specific to the project area, CSH initiates the "talk-story" session questions from five broad categories. The categories include: Burials, Trails, Native Gathering Practices of Plants, Marine and Fresh water Resources and Historic Properties. Presented below are brief backgrounds of participants' "talk-story" sessions and their comments and concerns about the proposed project area. Excerpts from extensive interviews specifically related to Waikīkī and its environs will be presented in this section.

5.1 Kehaulani Kruse

Cultural Surveys Hawai'i conducted a telephone interview with Ms. Kehaulani Kruse on May 6, 2007. This interview was supplemented by another on May 23, 2007. Kehaulani Kruse's *'ōhana* has a long connection to Waikīkī and Ms. Kruse, in addition to being a member of the O'ahu Island Burial Council, has conducted extensive research in Waikīkī. Ms. Kruse shared the following information regarding the project area:

Iwi was discovered near the proposed development. Ms. Kruse helped in the re-interment of the *iwi*. The owner of the building promised that accommodations would be made to protect the site. The *iwi* was in the way of the electrical cable that was being installed, so it was put where there would be no disturbance.

On the Outrigger property on Beach Walk, Ms. Kruse also helped coordinate *iwi* that was found. The *iwi* was re-interred to a vault area, and the area was then landscaped in a respectful manner, with the vault in the ground. Ms. Kruse then named the area, "Nā-wai-huna-o-Kawehewehe," or the 'Hidden Waters of Kawehewehe.' Whether this particular *iwi* is related to the healing pond, she is not sure. Ms. Kruse recommended that CSH refer to the SHPD report on the re-burial.

As an Outrigger employee, Ms. Kruse conducted research on the area. Ms. Kruse commented that, "All of Waikīkī is significant. Plenty of fishponds, plenty of people lived there." In response to the question whether there are cultural sites which may be impacted by future development of the project area, Ms. Kruse commented that as far as *heiau* on this particular property is concerned, she is not aware of any *heiau* existing on the proposed project site. However, there was a healing pond that was close to the project area. This was 'Kawehewehe.'

Ms. Kruse knows of no ongoing cultural practices, such as plant-gathering, specific to the project area, and remarked, "There is hardly anything going on, as there are no plants to gather. A lot has already been developed, and Waikīkī has been destroyed, but the *mana* is still there."

5.2 Cy Harris

Cultural Surveys Hawai'i conducted a telephone interview with Mr. Harris on May 29, 2007. Mr. Harris is a cultural descendant for Waikīkī and for over a year and a half he performed as a dancer in the Hawaiian show featured in the Hula Hut restaurant. Mr. Harris graciously shared the following information regarding the project area:

In 1974, the Hula Hut restaurant was a theme restaurant offering Japanese food and a Hawaiian show with notable artists. "I used to dance in the show at the Hula Hut. We used to have dressing rooms next door to the Hula Hut. I know when they built Hula Hut, they found burials between two buildings and burials in the parking lot. They also built over burials with the small hotel, next to the Hula Hut, on the oceanside. It's very probable that you will run into more burials in that area. Because they used to see a lot of things."

When asked if he had heard about anything or experienced it himself, Mr. Harris replied: "Both. I heard about it and saw it. I know in the kitchen, plates flew in the air and shattered on the floor. Things would tumble off the shelves. All the priceless plates, Japanese plates, beautiful china that was lost. It was constantly happening. We used to see stuff in the dressing rooms, in the hallway next to the dressing rooms."

When asked what kind of phenomena he experienced, Mr. Harris said: "It's hard to explain. Shadows disappear into the hallway. There used to be an alley way that went from Beachwalk to the parking lot of Hula Hut. There was always a lot of activity in the parking lot, and in that area, if you know what I mean. It's like spiritual activity. There would be a ghost of a Hawaiian warrior that would appear. Also in the parking lot, in the lower structure, people used to see things. People would see things that disappeared into the wall. They had it blessed several times because the hotel was having problems."

According to Mr. Harris, the show he was in eventually closed because of all the problems. Although the owners of the restaurant attempted other things, these did not succeed. Mr. Harris said: "They tried something else, but whatever went in there, did not make it." Mr. Harris had no specific comments about the proposed Beachwalk development project.

Section 6 Cultural Landscape of the Project Area

Discussions of specific aspects of traditional Hawaiian culture as they may relate to the project area are presented below. The concluding discussion examines resources and practices identified within the project area in the broader context of the encompassing Waikīkī Ahupua‘a landscape.

Traditional cultural practices are based on an awareness of the harmony between humans and their natural resources. The Hawaiians of old depended on these cultural practices for survival. Based on their familiarity with specific places, and through much trial and error, Hawaiian communities were able to devise systems that fostered sustainable use of nature’s resources. Many of these cultural practices have been passed down from generation to generation and are still practiced in some of Hawai‘i’s communities today.

This section will include discussions on different types of traditional practices, cultural resources and *mo‘olelo* (stories) associated with Kālia. Excerpts from interviews and talk story sessions are incorporated throughout this section where applicable.

6.1 Hawaiian Agriculture

Kalo or taro, from which *poi* is made, was a major food staple in the traditional Hawaiian diet. Evidence from the Māhele LCAs indicates that *kalo* was cultivated on *kuleana* land in Kālia. Luaiku (LCA #2549) indicated they maintained 4 *lo‘i* (taro pond) on their land. Often, *kalo* was planted along the edges of streams (Handy 1940:10).

In relation to *kalo* there are also many associated religious and cultural beliefs. In brief, *kalo* is associated with the god Kāne. There are specific rituals and prayers related to the planting of *kalo*. Hawaiians also believe they are descendants from Hāloanaka, the first *kalo* plant or the elder brother, and from Hāloa – the younger brother. There is a dual relationship between the *kalo* plant and fish in the ocean when making ritual offerings. For example, the red-stalked *kūmū* taro might be substituted for the red kūmū fish. These are only a few of the many religious beliefs associated with *kalo*.

For the prior cultural impact evaluation (Chiogioji et al. 2005), Mr. Clarence Medeiros Jr.’s pointed out that Caucasian, Chinese, Hawaiian, Portuguese and Spanish predecessors lived and owned land throughout Waikīkī. They were residents as well as owners of the *lo‘i kalo* (taro ponds) and rice fields once commonplace in Waikīkī.

6.2 Hawaiian Aquaculture

The area known as Fort DeRussy (Kālia) contained 10 Hawaiian fishponds used for aquaculture. Hawaiian aquaculture is especially significant, as it was not practiced elsewhere in the Pacific. The majority of fishponds most likely were constructed in the sixteenth century. The prefix *loko* means “body of water” and the suffix describes the specific type. The four types of ponds are: *loko i‘a kalo* (fish and taro raised together in a pond), *loko wai* (inland freshwater fishpond), *loko pu‘uone* (isolated shore fishpond formed by a barrier sand berm creating a single elongated ridge parallel to the coast) and *loko kuapā* (seawall on a reef with sluice gates). In 1902, Cobb recorded the fishponds at Kālia as freshwater *loko wai* (Cobb 1902). Davis (1989,

1991) labeled the ten fishponds at Fort DeRussy to be *loko pu‘uone* with salt-water lens intrusion and fresh water entering from upland *‘auwai*. Kāhāwai Pi‘inaio was this type of stream. The 10 ponds are inland, swale-based ponds constructed between beach ridges that may have formed along the coast within the last millennium. Existing depressions in the sand were chosen to make the *loko pu‘uone*, and brush was cleared out. During traditional times, the ponds were used to farm fish, usually for the Hawaiian *ali‘i* (royalty). The *‘ama‘ama* (mullet) and the *awa* (milkfish) were the two types of fish traditionally raised. During his 1973 archaeological studies, Kikuchi categorized the ponds at Kālia as type IIIB; “A man-altered *loko wai* which has a dirt and stone embankment wall separating from a river or stream and which has a sluice gate” (Kikuchi 1976:229).

Kikuchi writes that fishponds evolving “from a simple technological device into a symbol of status and power is significant from the vantage point of the development of stratified societies in the Pacific” (Kikuchi 1976:296). Fishponds were a crucial component of food production as well as symbols of status. Water from *‘auwai* (irrigation ditch or canal) would have been used for both agriculture and aquaculture, therefore requiring a cooperative system of water utilization. The types of fish that thrived in the brackish water were the Euryhaline fish mullet (*Mugil cephalus*) and milkfish (*Chanos chanos*). These fish have a natural inclination to swim against currents toward freshwater sources. Maintenance of the ponds would have been constant and necessitated a fulltime caretaker or caretakers.

Motivated by business in the late 1880s, Chinese farmers began leasing the ponds from Hawaiians to raise fish and ducks and the taro fields were converted to rice fields.

Many ponds in the Kālia area were filled in when Fort DeRussy was built and when the Ala Wai Canal was dredged in the 1920s. Earl Vida, whose father supervised the construction of the Ala Wai, related that Dillingham had a dual-purpose scheme, not only to build the canal, but to fill in the ponds. “We don’t need the ponds. We need the land” (Oral History Project 1985:597). The filling in of the ponds (and the taro fields) had dramatic implications for future generations of Hawaiians: it forever altered the traditional landscape and it prevented Hawaiians from being able to return to this traditional way of life in Waikīkī.

LCA 1436, shared by Mr. Clarence A. Medeiros Jr. in the prior cultural impact evaluation (Chiogioji et al. 2005), shows that Kaleipaopao (*wahine*) was the Māhele Awardee of LCA 1436, 1.01 acres in Kālia. In Claim 1436 of Native Testimonies, Kaleipaopao claimed a house lot in Kālia and identified a stream at Kālia that she surrendered contestedly to Kekūanaō‘a. She identifies the Kaihikiapu Pond Waikīkī as belonging to Kekūanaō‘a. The stream being a source of water for *lo‘i kalo* and a source of food is evidence of a native, traditional, and customary gathering source. It is possible that a *kapu* (taboo) could have been placed on the fishpond, being exclusive to the *ali‘i*.

Ms. Paulette Ka‘anohi Kaleikini shared that the fresh water pond at Kālia was where her great great-grandfather, Ialua, raised *moi* (threadfish, *Polydactylus sexfilis*). that was preferred by the chiefs, including Kamehameha I who was close relative to her *kūpuna*. Ms. Kaleikini’s *‘ohana* were *kahu* of the chiefs.

6.2.1 Loko Ka'ohai

At one time, Waikīkī was a network of thriving *lo'i* (taro) fields and fishponds. Kālia was especially known for its large inland ponds (*loko pu'uone*) and its abundant stock of fish. *Pu'uone* ponds were close to shore ponds, *loko kuapā*, or to the seashore, and next to the mouths (*nuku*) of streams (Kamakau 1976:49). During traditional times, the ponds were used to farm fish – usually for the Hawaiian *ali'i* (royalty). The *'ama'ama* (mullet) and the *awa* (milkfish) were the two types of fish traditionally raised.

No doubt, these ponds were critical in feeding the large armies that landed in Waikīkī during times of war, and the large retinue associated with chiefly residences in nearby Helumoa. 'Ī'ī mentions an incident where a particularly large catch of fish was given as tribute to Kīna'u, Kamehameha's son. The fish came from the nearby pond of Moehonua in Kālia ('Ī'ī 1959:49).

The ponds were also home to the *kōloa* (native duck) and other native water fowl – such as the *'auku'u* (heron), *'alae 'ula* (mudhen), *'alae kea/'alae ke'oke'o* (coot), and the *ae'o* (stilt) (Kanahele 1995:129). As early as 1828, foreign visitors (Duhaut-Cilly; Chamberlain) commented on the state of decline and disrepair of the fishponds and taro fields in Waikīkī. The French navigator, Auguste Duhaut-Cilly, attributed this decline to the missionaries who coerced the Hawaiians to spend most of their time in school reading the bible rather than working in their fields, and to the sandalwood trade.

Hawaiian author, George Kanahele, credits the deterioration of the Waikīkī fishponds to several negative impacts, including introduced diseases which decimated not only the ponds' caretakers, but the general laborer class who maintained the ponds, and the Māhele which altered the land tenure system and diminished the power of the *konohiki* (land manager) to control "corvee labor" (Kanahele 1995:126).

In the late 1880s, Chinese farmers began leasing the ponds from Hawaiians to raise fish and ducks and the taro fields were converted to rice fields. The interim fate of Loko Ka'ohai is not known prior to the pond being filled in.

In 1911, Loko Ka'ohai was filled in by realtor, Percy Pond, to create the Beach Walk Tract. Other nearby ponds in Kālia were likewise filled when Fort DeRussy was built and when the Ala Wai Canal was dredged in the 1920s. Earl Vida, whose father supervised the construction of the Ala Wai, related that Dillingham had a dual-purpose scheme, not only to build the canal, but to fill in the ponds. "We don't need the ponds. We need the land" (Oral History Project1985:597). The filling in of the ponds (and the taro fields) had dramatic implications for future generations of Hawaiians: it forever altered the traditional landscape and it prevented Hawaiians from being able to return to this traditional way of life in Waikīkī.

6.3 Gathering of Plant Resources

Hawaiians utilized upland resources for a multitude of purposes. Forest resources were gathered not only for the basic needs of food and clothing, but for tools, weapons, canoe building, house construction, dyes, adornments, hula, medicinal, and religious purposes. However, as noted above, during traditional Hawaiian times the present project area was used for the gathering of *hala*, *kukui* and similar upland resources.

Within the project area itself, no specific documentation was found in regards to gathering of plants during traditional Hawaiian times. During this evaluation there were no ongoing practices related to traditional gathering of plant resources identified in the present project area. None of the individuals contacted or interviewed for this assessment identified any current native plant gathering practices within the project area. Ms. Keahaulani Kruse shared that she knows of no ongoing cultural practices, such as plant-gathering, specific to the project area, and remarked, "There is hardly anything going on, as there are no plants to gather…." Ms. Kaleikini's described how her *kūpuna* were healers, growing their own *lā'au* (medicinal plants) on the *'āina*.

6.4 Marine and Freshwater Resources

The ocean was just as important a gathering place as the land. A study of ocean resources indicated that although the entire coastline along Kālia and Waikīkī was utilized for gathering and subsistence, particular spots seemed richer in certain resources than others. Generally, the whole coastline of Waikīkī was accessed because certain fish are known to frequent certain areas and an experienced fisherman knows where to go to catch a particular fish. Where one chooses to fish might also depend on the crowds at the beach and time of day. In Waikīkī, especially due to the high volume of people on the beaches, many fishermen these days go fishing at night. The more favorable fishing grounds were in front of the old Niumalu Hotel (Hilton Hawaiian Village), the Royal Hawaiian and Halekūlani, and the area fronting the Natatorium. Specifically, the area between Diamond Head and the Kapahulu Groin was considered better fishing grounds than the Outrigger Reef on the Beach/Ft. DeRussy portion of the shoreline. Likewise, the squid grounds are located between the Kapahulu groin and Diamond Head.

Oral information passed down to Bob Paoa (who participated in the prior cultural impact assessment) from his elders indicated many of the people dwelling along the coast of Kālia were fishermen. The 1890 Directory of the Kingdom listed the names of twelve fishermen living in Kālia. Three of the names listed are relatives of Bob Paoa.

Kālia was renowned for the fragrant *limu līpoa*, as well as several other varieties of seaweed such as *manauea, wāwae'iole, 'ele'ele, kala* and some *kohu*. The area between the Royal Hawaiian and the Halekūlani was the area where *limu līpoa* was traditionally gathered. Mr. Paoa confirmed the great fishing and the abundant *limu* in the Kālia area.

The *'ele'ele* existed in relation to Po'inaio Stream and the two other streams feeding into Waikīkī. It seems this resource is no longer found in Waikīkī today, because the streams no longer flow to the sea. *'Ele'ele* normally grows in areas where there is freshwater intrusion, such as where freshwater streams enter the ocean (Abbott 1974:10).

Interviews from the prior cultural impact evaluation (Chiogioji et al. 2005) confirmed that the Waikīkī shoreline was abundant in many varieties of fish and *limu*, certain varieties of crab and lobster, as well as being good squid grounds. Talk-story with fishermen who presently use the Waikīkī coast confirms, for the most part, this is still true today.

Before the Ala Wai Canal was built and the streams diverted, the streams feeding into Waikīkī were once abundant in *'o'opu* (species of Hawaiian endemic fish in the Goby family) and *'ōpae* (shrimp). Local *kama'āina* attest that by the time they were born these two resources were no longer available. However, stories passed down by their elders and parents indicated the stream was once an important cultural resource for them. Sadly, these two cultural resources are

no longer found in Waikīkī today. Ms. Kaleikini's recalled that her *kūpuna* gathered *limu* from the ocean close by in the vicinity of what is now an R & R Resting place for the military. Often her mother would take her to the beach to gather *limu.*

6.5 Burials

The discovery of burials in the Waikīkī area during recent construction projects has been a cause of concern over the last few years.

There are approximately 14,500 records associated with LCA claims during the Māhele of 1847-1853. Of these records, 432 are for claims both awarded and unawarded in Waikīkī. Among these 432 claims, there is only one mention of a graveyard or burial place, Claim 613 (to Kuluwailehua) which was not awarded (www.waihona.com). Although it is uncertain where the reported burial ground is located, based on the boundaries given in the testimony (Native Register, Vol. 2: 299-300 found in www.waihona.com), it is speculated that it might be adjacent to the former location of Waikīkī Church, near Ka'iulani Avenue.

It seems the circumstances of the burials discovered in the vicinity of the project area are much more mundane than battle deaths or human sacrifices - namely that the vast majority of the deceased were the common people of Kālia. Withington (1953:16), probably referring to the *'oku'u* plague (circa 1804), wrote: "…a few years of peace settled over the Islands. Kamehameha and other warring chiefs took this opportunity to re-establish their forces, which had been greatly reduced through war and disease. A terrible epidemic of measles had attacked the people of the islands. It is claimed that more than three hundred bodies were carried out to sea from Waikīkī in one day" (Withington: 1953:16). It is possible that some of the Kālia burials discovered to date reflect such early depopulation by introduced diseases.

Social rank appears to have had profound influences on places available for burial sites. A king's body, or those of his attendants, could be placed within the district of the king's authority. Many geographical features were available. Fewer were available to lesser chiefs and their attendants, who were presumably limited to their own districts. The number of geographical features available for burial sites seems to have decreased as rank decreased. Burial sites for members of an extended family living in an *'ili* was restricted to those geographical features located within the land unit, whether broken lava flats, lava tubes, earth plains, or sand dunes (Bowen 1961:21).

According to Bowen (1961:21), most Hawaiians in the pre-contact period belonged to the *maka'āinana* (commoner) class and their bones were usually buried in no other area than their particular *'ili* (land division within an *ahupua'a*).

Burials are commonly reported from clean, consolidated sand deposits, as this was clearly a common method of interment practiced by Hawaiians (Cleghorn 1987:42). One of the earliest references to traditional Hawaiian burial practices was made by Urey Lisiansky, who visited Hawai'i in June 1804. He notes: "The poor are buried anywhere along the beach…" (1814: 122).

Commenting on the nature of burial areas and body positions used in burial, William Ellis (1827:361-363) wrote: "…the common people committed their dead to the earth in a most

singular manner." The body was flexed, bound with cord, wrapped in a coarse mat, and buried one or two days after death. Graves were:

> …either simply pits dug in the earth, or large enclosures…Occasionally they buried their dead in sequestered places at a short distance from their habitations, but frequently in their gardens and sometimes in their houses. Their graves were not deep and the bodies were usually placed…in a sitting posture. (Ellis 1827:361)

Hawaiians placed significance on the *iwi* (bones), which were regarded as a lasting physical manifestation of the departed person and spirit. "The bones of the dead were guarded, respected, treasured, venerated, loved or even deified by relatives; coveted and despoiled by enemies" (Pukui et al., 1974:107).

For the prior cultural impact evaluation (Chiogioji et al. 2005), Mr. Clarence A. Medeiros Jr., a recognized cultural descendant of Waikīkī, shared that because of the customary Hawaiian practice of burying family member within their *pā hale* (yard), it is highly likely that native Hawaiian burials may exist in the proposed project area. His Caucasian, Chinese, Hawaiian, Portuguese predecessors lived and owned land throughout Waikīkī. They were residents as well as owners of *lo'i kalo* and rice fields. Living on the land, the burials of these foreigners may also be found within the subject property.

Ms. Kehaulani Kruse shared that *iwi* were discovered near the proposed development and on the Outrigger property on Beach Walk Ms. Kruse helped in the re-burial and blessing of the *iwi* on both properties. Mr. Cy Harris, a former entertainer at the Hula Hut restaurant, commented that he was aware that, "when they built Hula Hut, they found burials between two buildings and burials in the parking lot. They also built over burials with the small hotel, next to the Hula Hut, on the oceanside. It's very probable that you will run into more burials in that area. Because they used to see a lot of things."

6.6 Kawehewehe – a *Wahi Pana* (Storied Place) of Spiritual Healing

Kawehewehe, the older Hawaiian name for the overall area where the project is situated, is associated with a healing tradition. The waters of Kawehewehe were believed to have special healing qualities. As a treatment for illness and defilement, the sick were brought here to bathe in the healing waters of the ocean. As part of the healing ritual, many might wear a *lei* woven from the *limu kala*. After bathing in the ocean, the patient ducks under the water, releasing the *lei* from around his neck, letting the *lei kala* float out to sea. Upon turning around to return to shore, the custom is to never look back, symbolizing the *'oki* (to sever or end) and putting an end to the illness. Leaving the *lei* in the ocean also symbolizes forgiveness (*kala*) and the leaving of anything negative behind.

Kawehewehe takes its meaning from the root word, "*wehe*" which mean "to remove" (Pukui et al. 1974:383). Thus, as the name implies, Kawehewehe was a traditional place where people went to be cured of all types of illnesses – both physical and spiritual. It is uncertain if the tradition of Kawehewehe as a healing place originated hundreds of years ago in Hawaiian history or whether it began after the introduction of foreign diseases and epidemics that decimated thousands of Hawaiians.

As a young child, John ‘Ī‘ī, was trained to be an attendant in the courts of the *ali‘i* (chiefs). He relates the story of how his relatives arrived on O‘ahu, making Kawehewehe their first home.

> …John Papa Ii, first appeared amongst the chiefs when but a small child, at Kawehewehe in Waikiki, Oahu. His uncle, Papa Ii, and most of their people were there at that time, for that was their first residence when the company arrived from Lahaina at the time of the coming of Kamehameha with his great peleleu fleet of canoes intended for the invasion of Kauai. (1959:17)

Not only was Kawehewehe a healing place, but it was also a desired place to live because it was situated close to the chiefly residences (Pua‘ali‘ili‘i) and beloved *ali‘i* whom ‘Ī‘ī’s family served.

Perhaps the original place name of Kawehewehe first took its name from a spring in Kawehewehe Pond, which might have also had healing qualities. In Hawaiian legends, many springs had healing powers. Over time, this reputation might have been expanded to include the waters fronting the beach at Kawehewehe. Ms. Kehaulani Kruse paid tribute to Kawehewehe, naming the re-burial area for the *iwi* on the Outrigger Hotel property, “Nā-wai-huna-o-Kawehewehe,” or the ‘Hidden Waters of Kawehewehe.’

6.7 *Mo‘o* (Water Spirits)

Traditionally, *mo‘o* (water spirits) are associated with fishponds, springs and water resource areas that they guard and protect. *Mo‘o* are known to take on more than one form (*kino lau*), many times taking on the form of a part-human or human. Often, ponds were associated with a particular named *mo‘o* who was worshiped and to whom offerings were made. Kamehameha promised one of his *akua* (gods), Kihawahine, that he would build her a *hale puaniu* – a house where offerings were made with *‘awa* (*Piper methisticum*) (Kamakau 1964: 85-86). There are no known legends regarding *mo‘o* in relation to Loko Ka‘ohai or Kawehewehe Pond.

6.8 Hawaiian Trails

In *Fragments of Hawaiian History* John Papa ‘Ī‘i described the “Honolulu trails of about 1810” (1959: 89), including the trail from Honolulu to Waikīkī:

> The trail from Kawaiahao which led to lower Waikiki went along Kaananiau, into the coconut grove at Pawaa, the coconut grove of Kuakuaka, then down to Piinaio; along the upper side of Kahanaumaikai’s coconut grove, along the border of Kaihikapu pond, into Kawehewehe; then through the center of Helumoa of Puaaliilii, down to the mouth of the Apuakehau stream. (‘Ī‘i 1959: 92)

The 1881 map (Figure 5) shows Kaihikapu pond to the west of the present project area. Māhele records identify the *makai* portion of the present project area as Kawehewehe.

Based on ‘Ī‘i’s description, the trail from Honolulu to Waikīkī in 1810 coursed through the *makai* side of the present Ft. DeRussy grounds and continued *makai* of the present project area in the vicinity of Kalia Road. It is likely that this trail was a long-established traditional route through Waikīkī (Figure 14).

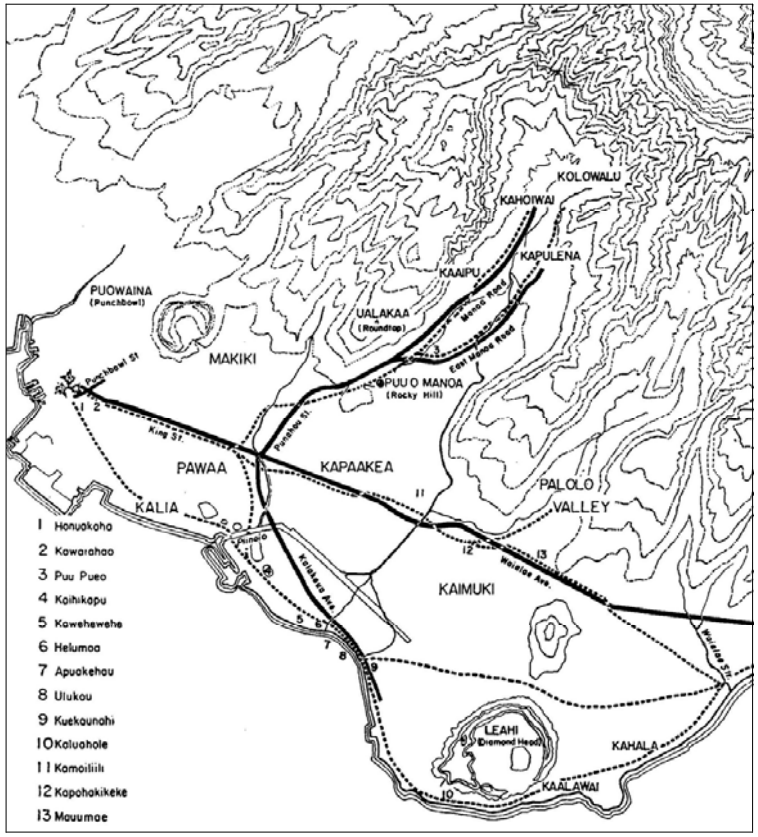


Figure 14. Trails from Punchbowl Street to Waialae as described by ‘Ī‘ī, map by Gerald Ober (‘Ī‘ī 1959:93)

Section 7 Summary and Recommendations

Cultural Surveys Hawai‘i, Inc., undertook this cultural impact assessment at the request of First Round Pacific, LLC.

Traditional native Hawaiian cultural practices declined with the extensive land modification and urbanization of the greater Waikīkī area. As the wetlands were drained and ponds were filled to accommodate the continuing expansion of urban Honolulu, the traditional way of life for native Hawaiians was no longer possible in Waikīkī. No on-going cultural practices were found in the vicinity of the current proposed project area.

Although the area has been graded and filled to accommodate previous development, the natural soil deposit is Jaucus sand and there may be intact sand strata below one or more fill layers. Cultural descendents of Waikīkī participating in this assessment (Ms. Kruse, Ms. Kaleikini, Mr. Medeiros, Mr. Harris) indicated that there could be *iwi* (human remains, bones) in the project area. Native Hawaiian burial practices were such that the potential for encountering human burials in sandy deposits within the current proposed project area does exist. Additionally, the present project area is located in the previous location of two fishponds, Loko Kapu‘uiki and Loko Ka‘ohai. Thus, remnant subsurface fishpond sediments could be encountered.

It is anticipated, based on historical research and previous archaeological projects, that evidence of pre-contact and early post-contact aquaculture, habitation, agriculture, and possibly burial practices may be found in the project area if intact Jaucus sand deposits remain below nineteenth and twentieth century fill layers.

Based on the findings of this assessment, no further formal cultural impact mitigation measures are warranted. Cultural Surveys Hawai‘i recommends that as a precautionary measure, personnel involved in future development activities in the area should be informed of the strong possibility of inadvertent cultural finds, including human remains, and should be made aware of the appropriate notification measures to follow.

Section 8 References Cited

Abbott, Isabella A.
1992 La‘au Hawai‘i: Traditional Hawaiian Uses of Plants. Bishop Museum Press, Honolulu.

Abbott, Isabella Aiona and Eleanor Horswill Williamson.
1974 *Limu: An Ethnobotanical Study of Some Edible Hawaiian Seaweeds*. **Pacific Tropical Botanical Garden, Lawai, Kau‘ai, HI.**

Acson, Veneeta
1983 *Waikiki: Nine Walks Through Time*. Island Heritage Limited, Norfolk Island, Australia.

Armstrong, R. Warwick (ed.)
1973 *Atlas of Hawai‘i*. University of Hawaii Press, Honolulu, HI.

Athens, Stephen
1990 *Letter: Inventory of Human Skeletal Remains from Hawaii at IARII*. International Archaeological Research Institute Inc., Honolulu, Hawai‘i.

Bath, Joyce, and Carol Kawachi
1989 *Ala Wai Golf Course Burial: Site 80-14-4097 ME#89-0252 Mānoa, Honolulu District, O‘ahu TMK 2-7-36:15*. Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Beardsley, Felicia, and Michael Kaschko
1997 *Archaeological Monitoring and Data Recovery Pacific Beach Hotel Office Annex, Waikiki, O‘ahu*. International Archaeological Research Institute, Inc., Honolulu, HI.

Beckwith, Martha
1940 *Hawaiian Mythology*. Yale University Press, New Haven, CT.

Bell, Matt and Matt McDermott
2006 *Archaeological Inventory Survey Report for the Allure Waikīkī Development, Waikīkī Ahupua‘a, Honolulu (Kona) District, O‘ahu TMK [1] 2-6-13: 1,3,4,7,8,9,11 and 12*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Bernard, Russell H.
2005 *Research Methods in Anthropology: Qualitative and Quantitative Approaches. Fourth Addition*. AltaMira Press, Walnut Creek, CA.

Bernice Pauahi Bishop Museum
1984 *Burial Remains Waikiki Ahupua‘a Maunalua to Waikiki (incl. Manoa) at Bishop Museum Kona*. Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

1981 *Interim Progress Report on Archaeological Testing, Excavations, and Monitoring at the Halekulani Hotel*. Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

Bishop, Sereno Edwards

1881 Waikiki: Honolulu, HI. Hawaii Government Survey and map by S.E. Bishop.

Bliss, W. R.
1873 *Paradise in the Pacific: a Book of Travel, Adventure, and Facts in the Sandwich Islands*. New York.

Borthwick, Douglas, Anthony Bush, Rodney Chiogioji, Hallett Hammatt
2002 *Archaeological Inventory Survey of an Approximately 71,000-sq.ft. Parcel in Waikiki, Waikiki Ahupua`a, Kona District, Island of O`ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Brown, DeSoto
1989 *Hawaii Goes to War: Life in Hawaii from Pearl Harbor to Peace. Honolulu*: Editions Limited.

Bureau of Land Management
2006 *Historic Glass Bottle Identification & Information Website*. Available at: http://www.blm.gov/historic_bottles/index.htm

Bush, Anthony, and Hallett H. Hammatt
2002 *Archaeological Monitoring Report for the Waikīkī Anticrime Lighting Improvement Project Phase II (TMK 2-6-1, 2-6-2, 2-6-3, 2-6-5, 2-6-6, 2-6-25, 2-6-16, 2-6-18, 2-6-19, 2-6-22, 2-6-23, 2-6-26, 2-6-27.* Cultural Surveys Hawaii, Kailua, HI.

Bush, Anthony, John P. Winieski, Hallett H. Hammatt
2003 *Archaeological Monitoring Report for Excavations for the New International Market Place Sign Project, Waikiki, O`ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Calis, Irene
2002 *An Archaeological Monitoring Report for ABC Store No. 35 Lemon Road Fence Wall Construction Project Waikiki Ahupua`a, Honolulu District, O`ahu Island, Hawai`i.* Scientific Consultant Services, Honolulu, Hawai‘i.

Carlson, Ingrid, Sara Collins, and Paul Cleghorn
1994 *Report of Human Remains found during the Realignment of Kālia Road, Fort DeRussy, Waikīkī, O‘ahu*. BioSystems Analysis, Kailua, HI.

Case, Howard D.
1933 *Waikiki! From Duck Ponds to Resort Mecca in 20 Years! (subtitle) Beach Area in Rapid Growth Since Filling. Honolulu Star Bulletin* 2 Sept.: 3,1.

Center for Oral History, Social Science Research Institute
1985 *Waikiki, 1900-1985: Oral Histories Volumes I-IV*. University of Hawai‘i-Manoa, Honolulu, Hawai‘i.

Chamberlain, Levi
1956 *Tour Around O‘ahu: 1828. Sixty-fifth Annual Report of the Hawaiian Historical Society for the Year 1956*, pp. 2541. Hawaiian Historical Society, Honolulu, HI.

Chiogioji, Rodney and Hallett H. Hammatt
1991 *An Archaeological Assessment of Two Parcels (TMK 2-6-24:65-68,80-83 and TMK 2-6-24:34-40, 42-45) in Waikiki Ahupua‘a, O‘ahu, Hawai‘i.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Chiogioji, Rodney, Sallee D.M. Freeman and Hallett H. Hammatt
2005 *Cultural Impact Assessment for the Proposed Waikīkī Beachwalk Amusement Center Waikīkī Ahupua‘a, Kona District, O‘ahu Island. TMK: 2-6-03: 26, 27, 48, 49, and 58.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Chiogioji, Rodney, Uta Rainalter, Sallee Freeman and Hallett H. Hammatt.
2004 *Archaeological Inventory Survey for the Tusitala Vista Elderly Apartments in Waikīkī Ahupua‘a, Kona District, O‘ahu Island (TMK 2-6-24:70, 71)*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Cleghorn, June
1993 Inadvertent Discovery of Human Remains at the Waikiki Aquarium Renovation Project, Waikiki, Kona, O‘ahu, TMK: 3-1-31: 006. State Historic Preservation Division, Honolulu, Hawai‘i.

1987 *Hawaiian Burial Reconsidered, An Archaeological Analysis*, M.A. Thesis. University of Hawai‘i at Mānoa, Anthropology ; no. 1868.

Cleghorn, Paul
2001a *Archaeological Mitigation of Waikiki Burger King Construction, TMK: 2-6-026:013 Kona District, Waikiki Ahupua‘a, Island of O‘ahu*. Letter to Mr. Roy Yamani (Hawaii CIMMS). Pacific Legacy, Honolulu, Hawai‘i.

2001b Archaeological Mitigation near Waikiki Burger King Construction Site TMK: 2-6-026:012 & 013, Kona District, Waikiki Ahupua‘a, Island of O‘ahu. Letter to Mr. Paul Kosasa (ABC Stores). Pacific Legacy, Honolulu, Hawai‘i.

1996 *The Results of an Archaeological Inventory Survey at the Proposed Kalākaua Plaza, Waikīkī, O‘ahu, Hawai‘i (TMK 2-6-16:23, 25-26, 28, 61, and 69)*. Pacific Legacy, Inc., Kailua, HI.

Cobb, Scott
1902 *Commercial Fisheries of the Hawaiian Islands, U.S. Fish Commission Report for 1901*, Government Printer, Washington D.C..

Corbin, Alan B.
2001 *FINAL: Appendix C: Subsurface Archaeological Inventory Survey-Hilton Waikikian Property, Land of Waikiki, Honolulu (Kona) District, Island of O`ahu (TMK: 2-6-9-:2, 3, 10).* Pacific Health Research Institute, Honolulu, Hawai‘i.

Coulter, John W. and Chee Kwon Chun
1937 *Chinese Rice Farmers in Hawaii*. UH Research Publications, No. 16. University of Hawai‘i, Honolulu, HI.

Dagher, Cathleen
1993 *Inadvertent Discovery of Human Remains at the Waikiki Aquarium Renovation Project, Waikiki, Kona, O‘ahu, TMK: 3-1-31: 006*. State Historic Preservation Division, Honolulu, Hawai‘i.

Davis, Bertell
1991 *Archaeological Monitoring of Environmental Baseline Survey and Excavations in Hawaiian Land Commission Award 1515 (‘Apana 2) at Fort DeRussy, Waikīkī, O‘ahu*. State Historic Preservation Office manuscript.

1989 *Subsurface Archaeological Reconnaissance Survey and Historical Research at Fort DeRussy, Waikīkī, O‘ahu, Hawai‘i*. International Archaeological Research Institute, Inc., Honolulu, HI.

1984 *The Halekūlani Hotel Site: Archaeological and Historical Investigations in Waikīkī, O'ahu, Hawai'i.* B.P. Bishop Museum, Honolulu, HI.

Dega, Michael, and Joseph Kennedy

1993 *Archaeological Report Concerning the Inadvertent Discovery of Remains at the Waikiki Aquarium (TMK: 3-1-31:06) Waikiki Ahupua‘a Kona District, Island of Oahu*. Archaeological Consultants of Hawaii, Inc., Haleiwa, HI.

Denham, Timothy, and Jeffrey Pantaleo

1997 *Archaeological Monitoring and Investigations During Phase I: Kālia Road Realignment and Underground Utilities, Fort DeRussy, Waikiki, O`ahu.* Biosystems Analysis, Kailua, Hawai‘i.

Denham, Timothy, Jeffrey Pantaleo, Thomas L. Jackson, William Fortini, Alan Ziegler, Gail Murakami, Linda Scott-Cummings, Paul Tichenal

1997 *Archaeological Data Recovery Excavations at the Fort DeRussy Military Reservation, Waikiki, Island of O‘ahu, State of Hawai‘i.* GANDA Biosystems, Honolulu, Hawai‘i.

Ellis, William

Narrative of a Tour through Hawaii, or Owhyhee; With Observations on the Natural History of the Sandwich Islands, and Remarks on the Manners, Customs, Traditions, History, and Language of their Inhabitants. B.J. Holdsworth, London.

Elmore, Michelle, and Joseph Kennedy

2002 *An Archaeological Monitoring Report for the Installation of a Security Fence at Fort DeRussy, Waikiki Ahupua`a, Honolulu District, Island of O`ahu*. Archaeological Consultants of the Pacific, Haleiwa, Hawai‘i.

2001 *A Report Concerning the Inadvertant Discovery of Human Remains at the Royal Hawaiian Hotel, (TMK: (1)2-6-02:5, in Waikiki Ahupua‘a, Honolulu District, Island of O‘ahu*. Archaeological Consultants of Hawaii, Inc, Haleiwa, HI.

Emerson, N.B.

1902 *A Preliminary Report on a Find of Human Bones Exhumed in the Sands of Waikīkī, in* Tenth *Annual Report of the Hawaiian Historical Society for the Year 1901*, pp.18-20. Hawaiian Historical Society, Honolulu, HI.

Federal Register

1998 *Federal Register*, January 28, 1998, Vol. 63, No. 18.

Fogg, Elaine.

1945 *Can 'Lovely Waikiki' Stage a Comeback? City-County Officials Say There's a Chance. (subtitle) Honkey-Tonks Under Duration Zone Rule; Community Must Aid Rehabilitation.* Honolulu Advertiser 16 July: 1,1.

Foote, Donald E., E.L. Hill, S. Nakamura, and F. Stephens

1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*. U.S. Dept. of Agriculture, U.S. Government Printing Office, Washington, D.C.

Freeman, Sallee, Matt McDermott, Constance O'Hare, and Hallett H. Hammatt

2005 *Archaeological Inventory Survey and Cultural Impact Assessment for the Ala Wai Gateway Project Site, Kālia, Waikīkī, O‘ahu (TMK [1] 2-6-011: 001, 002, 004, 032, 037, and 040).* Cultural Surveys Hawai‘i Inc., Kailua, HI.

Grant, Glen

1996 *Waikiki Yesteryear*. Mutual Publishing, Honolulu, Hawaii.

Griffin, Agnes

1987 *Kalakaua Avenue Gas Pipe Excavation Burial Recovery, Waikiki, C. Honolulu, O‘ahu (TMK: 2-6-01:12).* State Medical Officer's office memorandum to Department of Land and Natural Resources, Honolulu, HI.

Hammatt, Hallett H., Rodney Chiogioji

2000 *Archaeological Assessment of the Honolulu Zoo Parcel, Waikiki, Island of O`ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1998 *Archaeological Assessment of King Kalakaua Plaza Phase II, Waikiki, Island of O`ahu, (TMK 2-6-18:10, 36, 42, 52, 55, 62, 63, 64, 73, & 74*). Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1993 *An Archaeological Assessment of a 16-Acre Portion of the Ala Wai Golf Course in the Ahupua'a of Waikiki, Island of O‘ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Hammatt, Hallett H. andMatt McDermott

1999 *DRAFT: Burial Disinterment Plan and Report, State Site Numbers 50-80-14-5744-1 and -2 found During Anti-Crime Street Lighting Improvements Beneath Kalakaua Avenue, Waikiki, Island of O`ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Hammatt, Hallett H. and David W. Shideler

2006a *Archaeological Assessment of Two Parcels at the Corner of Kuhio and Kapahulu Avenues, Waikiki, O‘ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

2000b *Archaeological Assessment of a 0.015-Acre Parcel at the Corner of Kuhio and Kapahulu (TMK: 2-6-027:052) Waikiki, O‘ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1996 *Archaeological Data Recovery at the Hawai‘i Convention Center Site, Waikiki, Kona District, O‘ahu ((TMK 2-3-35:001).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1995 *Archaeological Sub-surface Inventory Survey at the Hawai‘i Convention Center Site, Waikiki, Kona District, O‘ahu (TMK 2-3-35:001).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Handy, E.S. Craighill.

1940 *The Hawaiian Planter, vol. 1*. Bishop Museum Bulletin No. 161, B.P. Bishop Museum, Honolulu, HI.

Hodge, Clarence L. and Peggy Ferris

1950 *Building Honolulu: A Century of Community Service*. Honolulu: Chamber of Commerce of Honolulu.

Hibbard, Don and David Franzen

1986 *The View from Diamond Head: Royal Residence to Urban Resort*, An Editions Limited Book, Honolulu, HI.

Honolulu Star-Bulletin

1963 *Skeletons Unearthed at New Canoe Club Site.* 24 January: 1A. Anonymous.

1957 *Boom at Waikiki Reduces Rights of Way to Beach.* 16 January*: 10*. Anonymous.

1928 *The Whole World Knows Waikiki*. 17 October:2:1-16.

Hurlbett, Robert, et al.

1992 *Archaeological Monitoring of Mechanical Loop Excavations Hilton Hawaiian Village, Land of Waikīkī, Honolulu (Kona) District, Island of O‘ahu*. State Historic Preservation Office, Honolulu, HI.

Hurst, Gwen

1990 *Historical Literature and Documents Search, Archaeological Testing and Subsequent Procedures for the Proposed Redevelopment of the Waikikian Hotel.* Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

‘I,‘ī, John Papa

1959 *Fragments of Hawaiian History as Recorded by John Papa ‘I‘ī.* Bishop Museum Press, Honolulu, HI.

Johnson, Donald D.

1991 *The City and County of Honolulu: A Governmental Chronicle*. University of Hawai‘i Press, Honolulu, HI.

Jourdane, Elaine

1995 *Inadvertent discovery of Human Skeletal Remains At Waikīkī, Sunset Hotel, Waikīkī, Kona, O‘ahu.* Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Kamakau, Samuel M.

The Works of the People of Old, Na Hana a ka Po`e Kahiko. Bishop Museum Special Publication, No. 61, Honolulu, HI.

1964 *Ka Po‘e Kahiko: The People of Old*. The Bishop Museum, Sp. Publication 51, Bishop Museum Press, Honolulu, HI.

Kanahele, George S.

1995 Waikiki 100B.C. to 1900 A.D.: An Untold Story. Honolulu: The Queen Emma Foundation.

Kennedy, Joseph

1991 *Archaeological Monitoring Report for the proposed IMAX Theater Project*. Archaeological Consultants Hawai‘i , Haleiwa, Hawai‘i.

Kikuchi, William K.

1976 *Prehistoric Hawaiian Fishponds*, Science 193:295-299.

LeSuer, C. Celeste, Matt McDermott, Rodney Chiogioji and Hallett H. Hammatt

2000 *Draft: An Archaeological Inventory Survey of King Kalakaua Plaza Phase II, Waikiki, Waikiki Ahupua`a, Kona District, Island of O`ahu, Hawai`i.* Cultural Surveys of Hawai‘i, Kailua, Hawai‘i.

Lisiansky, Urey

1814 *A Voyage Around the World in the Years, 1803, 1804, 1805, and 1806*. Booth, London.

Maly, Kepa, Leta J. Franklin and Paul H. Rosendahl

1994 *Archaeological and Historical Assessment Study Convention Center Project Area, Land of Waikiki, Kona District, Island of O‘ahu.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai‘i.

Mann, Melanie and Hallett H. Hammatt

2002 *Archaeological Monitoring Report for the Installation of 12- and 8-inch Water Mains on Lili‘uokalani Avenue and Uluniu Avenue, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-023, 24, and 26).* Cultural Surveys Hawai‘i, Kailua, HI.

McAllister, J.G.

1933 *Archaeology of O‘ahu*. B.P. Bishop Museum Bulletin, No.104.

McDermott, Matthew, Rodney Chiogioji and Hallett Hammatt

1996 *An Archaeological Inventory Survey of Two Lots (TMK 2-6-24:65-68 and 80-83 and TMK 2-6-24:34-40 and 42-45) in Waikiki Ahupua‘a, O‘ahu*, Hawai‘i. Cultural Surveys Hawaii, , Kailua, HI.

McGuire, Ka’ohulani and Hallett H. Hammatt

2001 *A Traditional and Cultural Practices Assessment for a Proposed Outrigger Hotels Hawai`i Property Redevelopment in Waikiki, Kona District, island of O`ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

McMahon, Nancy

1994 *Inadvertent Burial Discovery on April 28, 1994, Waikīkī, Kona, O‘ahu--Intersection of Kalākaua and Kuamo‘o Streets*. State Historic Preservation Office, Kapolei, HI.

Menzies, Archibald

1920 *Hawai‘i Nei 128 Years Ago*. Honolulu.

Nakamura, Barry Seichi

1979 *The Story of Waikiki and the “Reclamation” Project*. Unpublished M.A. thesis, Department of History, University of Hawaii, Honolulu.

Neller, Earl

1984 *An Informal Narrative Report on the Recovery of Human Skeletons From a Construction Site in Waikīkī on Paoakalani Street, Honolulu, Hawai'i.* State Historic Preservation Office, Kapolei, HI.

1981 *An Archaeological Reconnaissance of the New Construction at the Halekulani Hotel, Waikiki.* State Historic Preservation Division, Honolulu, Hawai'i.

1980 *The Kālia Burial Site #50-OA-2870: Rescue Archaeology in Waikīkī, Hawai'i.* State Historic Preservation Program, Kapolei, HI.

Newton, Ronald V.

1938 *Waikiki Seen as Area of Active New Development. Honolulu Star-Bulletin*, 26 March: .10.

Okamoto, Wilson & Associates, Inc.

1998 *Final Environmental Assessment and Finding of No Significant Impact (FONSI) King Kalakaua Plaza Phase Ii.* Wilson & Associates, Inc, Honolulu HI.

O'Hare, Constance, David Shideler and Hallett H. Hammatt

2005 *Archaeological Inventory Survey for the 116-unit Kaio'o Multifamily Condominium Project, Waikiki Ahupua'a, Honolulu (Kona) District, O'ahu Island, TMK (1) 2-6-012:037-044, 055-058*. Cultural Surveys Hawai'i, Kailua, HI.

O'Leary, Owen L., Rodney Chiogioji, Douglas F. Borthwick and Hallett H. Hammatt.

2005 *Archaeological Inventory Survey of a 1-Acre Parcel, 2284 Kalakaua Ave., Waikiki, Kona District, Island of O'ahu, TMK (1)2-6-022:009*. Cultural Surveys Hawai'i, Kailua, HI.

O'Leary, Owen L., Rodney Chiogioji, Anthony Bush, Douglas F. Borthwick and Hallett H. Hammatt.

2005 *Archaeological Assessment of 0.5-Acres of the Royal Kāhili Condo Property, Waikīkī, Kona District, Island of O'ahu TMK: (1)-2-6-016:056, 057, 058, 059, 060*. Cultural Surveys Hawai'i, Kailua, HI.

Oral History Project

1985 *Waikīkī. 1900-1985: Oral Histories, Volume II.* Social Science Research Institute, University of Hawai'i, Honolulu, HI.

Perzinski, David, Matt McDermott Rodney Chiogioji, and Hallett H. Hammatt

1999 *Archaeological Monitoring Report for Anti-Crime Street Lighting Improvements Along Portions of Ala Wai Boulevard, Kalākaua Avenue, Ala Moana Boulevard and 'Ena Road, Waikīkī, O'ahu*. Cultural Surveys Hawai'i, Kailua, HI.

Perzinski, Mary, Hallett H. Hammatt

2001a *Archaeological Monitoring Report for the Kapiolani Bandstand Redevelopment Project, Waikiki, Waikiki Ahupua'a, Kona District, O'ahu (TMK 3-1-43).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

2001b *Archaeological Monitoring Report for the Re-Internment Facility for the Waikiki Iwi Kupuna, Kapiolani Park, Waikiki, Island of O'ahu (TMK: 3-1-43:1).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

2001c *Archaeological Monitoring Report for Street Light Improvements Along a Portion of Kalakaua Avenue Between the Natatorium to Poni Mo'i Road, Waikiki, Island of O'ahu (TMK 3-1-031, 032 & 043).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

Perzinski, Mary, David W. Shideler, John Winieski, Hallett H. Hammatt

2000 *Burial Findings During the Excavation of a 16th Watermain on an Approximately 915 Meter (3,000 Ft.) Long portion of Kalakaua Avenue Between Kai'ulani and Monsarrat Avenues Associated with the Kuhio Beach Extension/Kalakaua Promenade Project, Waikiki Ahupua'a, Kona District, Island of O'ahu, (TMK 2-6-1, 2-6-22, 2-6-23, 2-6-26, 2-6-27, and 3-1-43).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

Pietrusewsky, Michael

1992a *A Mandible Fragment found at the Sheraton Moana Surfrider Hotel, Waikiki, TMK:2-6-01:012*, Report O-1066. Honolulu, HI.

1992b *Human Remains from the Lili'uokalani Gardens Site, Hamohamo, Waikiki, O'ahu, TMK:2-6-28:049*, Site 50-80-14-4127. Honolulu, HI.

Pukui, Mary Kawena, Samuel H. Elbert, Ester T. Mookini

1974 *Place Names of Hawai'i*, University of Hawai'i Press, Honolulu.

Putzi, Jeffrey L., Paul Cleghorn

2002 *Archaeological Monitoring of Trench Excavations for Sewer Connections Associated with the Hilton Hawaiian Village Improvements.* Pacific Health Research Institute, Hilo, Hawai'i.

Riford, Mary F.

1989 *Pre-Field Background Literature Search for Archaeological Resources at the Proposed Waikiki Landmark Property.* Bernice Pauahi Bishop Press, Honolulu, Hawai'i.

Rosendahl, Paul

2001 *Archaeological Assessment Study Waikiki Beach Walk Project, Land of Waikiki, Honolulu (Kona) District, Island of O`ahu Technical Report for EIS.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai'i.

1999 *Interim Report: Hale Koa Hotel Subsurface Inventory Survey-Luau Facility, K, Land of Waikiki, District of Kona, Island of O`ahu.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai'i.

1992 *Archaeological Monitoring of Mechanical Loop Excavations Hilton Hawaiian Village*. Pacific Health Research Institute, Hilo, Hawai'i.

1989 *Preliminary Report Upon Completion of Field Work Hale Koa Hotel Site Subsurface Inventory Survey K, Land of Waikiki, District of Kona.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai'i.

Soils Survey Geographic (SSURGO) Database, U.S. Department of Agriculture.

2001. *Soil Survey Geographic (SSURGO) database for the Island of O'ahu*, U.S. Department of Agriculture, http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/. Last accessed May 2007.

State Historic Preservation Division
1991 *Public Inquiry (TMK: 2-6-024:036). Honolulu, Hawaii*
1987 *Burial, Recovery Report of Kalakaua Ave. and Ka‘ iulani Street. Honolulu, Hawaii.*

Simons, Jeannette A., S. Antonio-Miller, D. Trembly, and L. Somer
1991 *Archaeological monitoring and data recovery at the Moana Hotel Historical Rehabilitation Project, O‘ahu, Waikīkī.* Applied Research Group, Bishop Museum, Honolulu, HI.

Simons, Jeannette A., Paul Cleghorn, R. Jackson, T. Jackson
1995 *DRAFT Archaeological Data Recovery Excavations at Fort DeRussy, Waikīkī, O‘ahu, Hawai‘i.* Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Sorensen, Betty Dyer
1995 *Born and Raised in Waikiki*. Santa Cruz: Limu Press.

Streck, Charles
1992 *Human Burial Discovery during Archaeological Data Recovery Excavations at Fort DeRussy, Waikiki, O‘ahu Island, Hawai‘i, 20 May 1992.* State Historic Preservation Division, Honolulu, Hawai‘i.

Tome, Guerin and Michael Dega
2003 *Archaeological Monitoring Report for Construction Work at the Waikiki Marriot, Waikiki, Manoa Ahupua`a, Honolulu District, O`ahu Island, Hawai`i*. Scientific Consultant Services, Honolulu, Hawai‘i.

Tulchin, Jon and Hallett H. Hammatt
2003 *Archaeological and Cultural Impact Assessment of a 1-Acre Parcel, 2284 Kalakaua Avenue, Waikiki, Kona District, Island of O‘ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

United States Geological Survey (USGS)
2005 *Honolulu. 7.5 minute orthophoto quad showing project area.*
1998 *Honolulu. 7.5 minute quadrangle showing previous archaeological survey maps in Waikiki*.

United States Army Archives
1935 *US Army-Hawaii Archives aerial photography*, Fort DeRussy, Waikiki, Honolulu.

Vancouver, George
1798 *A Voyage of Discovery to the North Pacific Ocean, and Round the World...Performed in the years 1790-1795*. Robinsons and Edwards, London.

Waihona Aina Corp.
2002 *The Māhele Database and The Boundary Commission Database*. Electronic document, http://www.waihona.com, accessed February 7, 2007.

Wilder, Kina‘u
1978 *Wilders of Waikiki.* Topgallant Publishing Co., Honolulu, HI.

Winieski, John P., and Hallett H. Hammatt
2002A *Archaeological Monitoring Report for the Public Baths Waste Water Pumping Station Force Main Replacement, Waikīkī, Honolulu, O‘ahu, Hawai‘i (TMK 2-6-25, 26, & 27, and 3-1-31, 43).* Cultural Surveys Hawai‘i, Kailua, HI.
2001 *Archaeological Monitoring Report (TMK: 1-2-6-025:000).* Cultural Surveys Hawai‘i, Kailua, HI.
2000 *Archaeological Monitoring for the Public Baths Waste Water Pumping Station Force Main Replacement Waikiki, Honolulu, O‘ahu, Hawai‘i (TMK 2-6-25, 26, & 27, and 3-1-31, 43*). Cultural Surveys Hawai‘i, Kailua, HI.

Winieski, John, Mary Perzinski, David Shideler, and Hallett H. Hammatt
2002a *Archaeological Monitoring Report for the Installation of a 16-Inch Water Main on an Approximately 915 Meter (3,000 Ft) Long Portion of Kalākaua Avenue Between Ka‘iulani and Monsarrat Avenues Associated with the Kūhiō Beach Extension/Kalākaua Promenade Project, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-1-, 2-6-22, 2-6-23, 2-6-26, 2-6-27, 3-1-43).* Cultural Surveys Hawai‘i, Kailua, HI.

Winieski, John, Mary Perzinski, Kēhaulani Souza, and Hallett H. Hammatt
2002b *Archaeological Monitoring Report, The Kuhio Beach Extension/Kalākaua Promenade Project, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-1-, 2-6-22, 2-6-23, 2-6-26, 2-6-27, 3-1-43).* Cultural Surveys Hawai‘i, Kailua, HI.

Withington, Antionette
1953 *The Golden Cloak: An Informal History of Hawaiian Royalty and of the Development of the Government During Each Reign Under Steadily Increasing Foreign Influence.* Honolulu Star Bulletin, Honolulu, HI.

Yost, Harold
1971 *The Outrigger Canoe Club of Honolulu, Hawaii.* Outrigger Canoe Club, Inc., Honolulu, HI.

APPENDIX F

Archaeological Assessment Report
for the 280 Beach Walk Retail Development

Archaeological Assessment Report for the 280 Beach Walk Retail Development, Waikīkī Ahupuaʻa, Honolulu (Kona) District, Oʻahu TMK [1] 2-6-003: 026, 027, 048, 049, and 058

Prepared for

First Round Pacific, LLC

Prepared by

Matthew J. Bell, BA

and

Matt McDermott, MA

Cultural Surveys Hawaiʻi, Inc.

Kailua, Hawaiʻi

(Job Code: WAIKI 12)

January 2007

Oʻahu Office
P.O. Box 1114
Kailua, Hawaiʻi 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
16 S. Market Street, Suite 2N
Wailuku, Hawaiʻi 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Reference	Archaeological Assessment Report for the 280 Beach Walk Retail Development, Waikīkī Ahupuaʻa, Honolulu (Kona) District, Oʻahu TMK [1] 2-6-003: 026, 027, 048, 049, and 058 (Bell and McDermott 2006)
Date	January 2007
Project Number (s)	Cultural Surveys Hawaiʻi Inc. (CSH) Job Code: WAIKI 12
Investigation Permit Number	The archaeological assessment fieldwork was carried out under archaeological permit number 0605 issued by the Hawaiʻi State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR).
Project Location	The project area – TMK 2-6-003: 026, 027, 048, 049, and 058 – comprises an approximately 30,000 square foot property near the north end of the elongated block bounded by Kalia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. It is shown on the 1998 USGS 7.5 Minute Series topographic map, Honolulu Quadrangle. A portion of this property was the former Hula Hut restaurant.
Project Land Jurisdiction and Funding	Private, First Round Pacific, LLC
Agencies	SHPD/DNLR
Project Description and Related Ground Disturbance	The project area is proposed for development of a 17,675 square foot retail building comprising 1 floor of seven leased retail spaces on parcels 026 and 027. Ground disturbance associated with the retail project will be limited to these parcels and will include borings related to foundation pile installation and excavation related to the project area's development, to include structural footings, utility installation, and landscaping. Minor modifications to an existing parking structure on parcel 048 and surface improvements to the perpetual access easement, parcel 049, are also components of this project.
Project Acreage	Approximately 0.70 acres (30,376 square feet)

Area of Potential Effect (APE) and Survey Acreage	For this archaeological assessment, the project's APE is defined as the entire approximately 0.70-acre footprint of the proposed commercial development. The project area's surrounding built environment is urban (paved streets and low rise and high rise buildings) and the proposed construction poses no additional auditory, visual or other environmental impacts to any surrounding potential historic properties (for example historic buildings or structures). Accordingly, for the current investigation the survey area and the project APE are one and the same.
Historic Preservation Regulatory Context and Document Purpose	As a privately funded project on privately owned land, the proposed 280 Beach Walk Retail Development requires compliance with and review under state of Hawai‘i historic preservation review legislation (Hawai‘i Revised Statutes (HRS) Chapter 6E-42 and Hawai‘i Administrative Rules (HAR) 13-284). At the request of the First Round Pacific, LLC, CSH completed an archaeological inventory survey investigation, per the requirements of HAR Chapter 13-13-276, of the subject 0.7-acre parcel. Because no historic properties were located in the 0.7-acre parcel, this investigation is termed an archaeological assessment per HAR Chapter 13-13-284-5. This archaeological assessment report was prepared to support the proposed retail development's historic preservation review and any other project-related historic preservation consultation.
Fieldwork Effort	Douglas Borthwick, BA; Matthew Bell, BA; Tony Bush, BEd; Randy Groza, BA; Lleiana Loynaz, BA; Jeff Olenciaz, BA; Michelle Pammer; and Matt McDermott, MA (principal investigator), completed the fieldwork on November 21 and 22, 2006. The field effort required approximately 10 person-days to complete. No surface historic properties were identified during pedestrian inspection. The historic property identification effort focused on a subsurface testing program. Eleven trenches were excavated, documented, and sampled.
Number of Historic Properties Identified	None
Historic Properties Recommended Eligible to the Hawai‘i Register of Historic Places (Hawai‘i Register)	None

Historic Properties Recommended Ineligible to the Hawai‘i Register	None
Effect Recommendation	The proposed project will not affect identified historic properties recommended eligible to the Hawai‘i Register. Nevertheless, cultural consultation results indicate a concern for human burials in the area and previous archaeological work has documented numerous burials in the vicinity and disturbed human remains in historic fill. Because of these concerns, CSH's project-specific mitigation recommendation is for archaeological monitoring as a contingency identification measure (HAR Chapter 13-279-3).
Mitigation Recommendation	In order to mitigate the potential damage to unidentified historic properties that may yet exist in the project area, it is recommended that project construction proceed under an archaeological monitoring program. This monitoring program will focus on identification and proper treatment if any isolated burials or disturbed remains predicted by background research are found, and will gather additional information regarding the project's non-burial archaeological deposits, should any be discovered. This archaeological monitoring program may consist of a combination of on-site and on-call monitoring of project construction.

Table of Contents

Management Summary ..... **i**

Section 1 Introduction **1**

1.1 Project Background 1
1.2 Historic Preservation Regulatory Context and Document Purpose 1
1.3 Scope of Work 5
1.4 Environmental Setting 6
1.4.1 Natural Environment 6
1.4.2 Built Environment 8

Section 2 Methods **9**

2.1 Document Review 9
2.2 Field Methods 9
2.3 Laboratory Methods 10
2.4 Historic Property Evaluation for Hawai‘i Register Eligibility 11
2.5 Consultation Effort 11

Section 3 Historical Background **12**

3.1 Traditional and Historical Background of Waikīkī Ahupua‘a 12
3.1.1 Pre-contact to Early 1800s 12
3.1.2 Mid-Nineteenth Century and the Mahele 14
3.1.3 The Waikīkī Trail and Kawehewehe 17
3.1.4 Later-Nineteenth Century 18
3.1.5 1900 to 1920 22
3.1.6 1920s to 1930s 24
3.1.7 1940s 29
3.1.8 1950s 29
3.2 Summary 32

Section 4 Previous Archaeological Research **33**

Section 5 Cultural Consultation Results **48**

5.1 Results of the prior Cultural Impact Evaluation for the Project Area 48
5.2 Archaeological Assessment Cultural Consultation 49

Section 6 Background Summary and Predictive Model **50**

Section 7 Results of Fieldwork **52**

7.1 Results of Pedestrian Inspection 52
7.2 Discussion of Subsurface Testing Sample Size 53
7.3 Stratigraphic Summary 55
7.4 Subsurface Findings 59

Section 8 Summary and Interpretation **64**

Section 9 Significance Assessments **66**

9.1 Significance Assessments 66

Section 10 Project Effect and Mitigation Recommendations **67**

10.1 Project Effect 67
10.2 Mitigation Recommendations 67
10.3 Disposition of Materials 67

Section 11 References Cited **68**

Appendix A Comprehensive Trench Documentation **1**

List of Figures

Figure 1. Portion of the 1998 Honolulu USGS 7.5-minute topographic quadrangle, showing location of project area....2
Figure 2. Tax map showing the project area....3
Figure 3. 2005 USGS orthophoto quad showing the project area, the former Hula Hut Restaurant the existing parking structure and the access easement from Saratoga Road....4
Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area. Source: Soils Survey Geographic Database (SSUGRO) 2001, U.S. Department of Agriculture....7
Figure 5. 1881 map of Waikīkī by S.E. Bishop with location of current project area....15
Figure 6. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head. (Bishop Museum Archives)....20
Figure 7. View of Waikīkī shoreline, *ca.* 1880s (Bishop Museum Archives)....21
Figure 8. 1914 fire insurance map showing five residential and commercial areas of Waikīkī....23
Figure 9. 1927 fire insurance map with parcels comprising present project area indicated....27
Figure 10. 1935 aerial photograph showing the project area and the surrounding areas of Waikīkī fully developed (US Army-Hawaii Archives)....28
Figure 11. 1951 fire insurance map with parcels comprising present project area indicated....31
Figure 12. Previous Archaeological Work in Waikīkī, focusing on locations of burials. Also shown are three similar investigations in the Kālia area....40
Figure 13. Parcel 048, looking southwest at the existing parking structure....52
Figure 14. Locations of trenches within the project area. The existing parking structure and the access easement were not tested....56
Figure 15. Trench 2 west wall profile....57
Figure 16. Representative profile of trenches containing pond sediments....58
Figure 17. Artifact A, unmodified lithic flake, side A....59
Figure 18. Feature A, unmodified lithic flake, side B....60
Figure 19. Artifact B, an isolated green glass bottle....61
Figure 20. Artifact Deposit C, Bottle A....62
Figure 21. Feature C, Bottle B....63
Figure 22. Trench 1 east profile....2
Figure 23. Trench 1 east wall photograph....5
Figure 24. Cobble concentration in west wall of Trench 1....5
Figure 25. Trench 2 west wall profile....6
Figure 26. Trench 2 west wall photograph. Gray sediment possibly mounded visible just in front of the photo scale is Stratum IIa....9
Figure 27. Trench 2 west wall profile....10
Figure 28. Trench 3 north wall. Photo scale is sitting on the concrete slab forming a building foundation; water table can be seen in the background where natural sediments were exposed....12
Figure 29. Trench 4 west wall profile....13

Figure 30. Trench 4 east wall, looking roughly south. Most of the natural sediments are below the water table in this photograph....15
Figure 31. Trench 5 east wall photograph. Concrete jacket visible in photo terminated excavation of trench towards north edge of project area....17
Figure 32. Trench 8 east wall photograph, southwest half. Natural sediments appear just above the water table....23

List of Tables

Table 1.Previous Archaeological Investigations in Waikīkī Ahupua‘a....34
Table 2. Summary of Subsurface Testing Sample Sizes from Recent Archaeological Inventory Survey Investigations in the Vicinity of the Current Project Area....54

Section 1 Introduction

1.1 Project Background

At the request of First Round Pacific, LLC, Cultural Surveys Hawai‘i (CSH) completed this archaeological assessment of a 0.7-acre project area in Waikīkī Ahupua‘a, Honolulu (Kona) District, Island of O‘ahu (TMK 2-6-003: 026, 027, 048, 049, and 058). The project area is an approximately 30,000 square foot property located near the north end of the elongated block bounded by Kalia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. Figure 1 shows this project area on a USGS topographic map, Figure 2 on a tax map key (TMK) map, and Figure 3 on an aerial photograph.

The project area is presently a largely empty lot that includes a two-level parking garage, a permanent access easement and, until recent demolition, low-rise buildings, including the site of the Hula Hut Restaurant (refer to Figure 3). There are two different conditions of ownership in the project area. Parcels 026, 027, 048 and 058 are privately owned and the proposed development is privately funded by First Round Pacific, LLC in a Joint Development Agreement. Parcel 049 is privately owned by a separate entity but is a permanent access easement to be resurfaced as part of the current project. The proposed 280 Beach Walk Retail Development will consist of a one-story retail building of a maximum height of 11.5 meters (38 feet). Ground disturbance associated with the project will include borings related to foundation pile installation and excavation related to the project area’s development, to include structural footings, utility installation, and landscaping. This ground disturbance will be occurring on Parcels 026 and 027, presently a gravel parking lot, where the retail building will stand. The project will also include minor structural modifications to the existing parking structure on Parcel 048 and surface improvements for the perpetual access easement Parcel 049. Parcel 058 is a utility easement running roughly north south through the center of the project area and is not directly part of the project’s plans.

For this archaeological assessment, the project’s area of potential effect (APE) is defined as the entire approximately 0.7-acre footprint of the proposed retail development. The project area’s surrounding built environment is urban (paved streets and low rise and high rise buildings) and the proposed construction poses no additional auditory, visual or other environmental impacts to any surrounding potential historic properties (for example historic buildings or structures). Accordingly, for the current archaeological assessment the survey area and the project APE are one and the same.

1.2 Historic Preservation Regulatory Context and Document Purpose

As a privately funded project on privately owned land, the proposed 280 Beach Walk Retail Development requires compliance with and review under state of Hawai‘i historic preservation review legislation (Hawai‘i Revised Statutes (HRS) Chapter 6E-42 and Hawai‘i Administrative Rules (HAR) 13-284). At the request of the First Round Pacific, LLC, CSH completed an archaeological inventory survey investigation, per the requirements of HAR Chapter 13-13-276, of the subject 0.7-acre project area. Under Hawai‘i state historic preservation legislation, archaeological inventory surveys are designed to identify, document, and provide significance

Figure 1. Portion of the 1998 Honolulu USGS 7.5-minute topographic quadrangle, showing location of project area

Figure 2. Tax map showing the project area

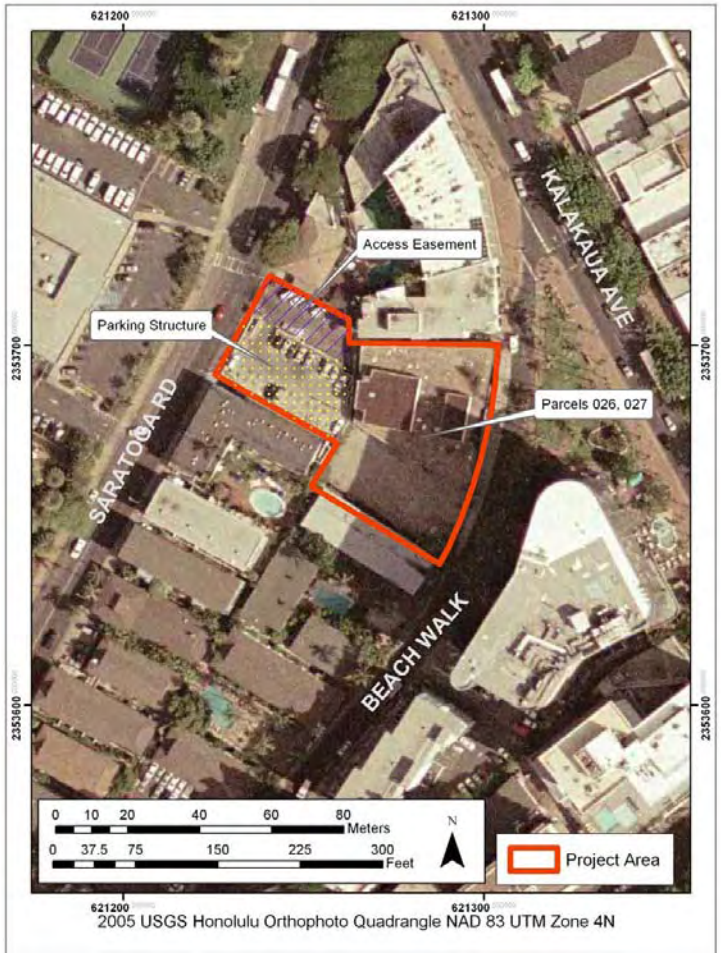


Figure 3. 2005 USGS orthophoto quad showing the project area, the former Hula Hut Restaurant the existing parking structure and the access easement from Saratoga Road.

and mitigation recommendations for historic properties. Under this legislation, historic properties are defined as any “building, structure, object, district, area, or site, including *heiau* and underwater site, which is over fifty years old” (HAR Chapter 13-284-2). A project’s effect and potential mitigation measures are evaluated based on the project’s potential impact to “significant” historic properties (those historic properties determined eligible, based on established significance criteria, for inclusion in the Hawai‘i Register of Historic Places [Hawai‘i Register]). Determinations of eligibility to the Hawai‘i Register result when a state agency official’s historic property “significance assessment” is approved by SHPD, or when SHPD itself makes an eligibility determination for an historic property (HAR Chapter 13-284).

Designed to fulfill the state requirements for archaeological inventory surveys (HAR Chapter 13-276), this investigation included an extensive subsurface testing program. Because no historic properties were located in the 0.7-acre parcel, this investigation is termed an archaeological assessment per HAR Chapter 13-13-284-5. This archaeological assessment report was prepared to support the proposed retail development’s historic preservation review and any other project-related historic preservation consultation.

1.3 Scope of Work

The following archaeological inventory survey scope of work was designed to satisfy the Hawai‘i state and City and County of Honolulu requirements:

1) Research on historic and archaeological background, including a search of historic maps, written records, and Land Commission Award documents. This research focused on the specific area with general background on the *ahupua‘a* and district, and emphasizes settlement patterns.

2) A 100 percent pedestrian inspection of the project area to identify any potential surface historic properties.

3) Subsurface testing with a combination of hand and backhoe excavation to identify and document subsurface cultural deposits. Appropriate samples from these excavations were analyzed for cultural and chronological information.

4) Preparation of this survey report, which includes the following:
   a) A project description;
   b) A topographic map of the survey area showing all recorded historic properties;
   c) Historical and archaeological background sections summarizing prehistoric and historic land use of the project area and its vicinity;
   d) Descriptions of all historic properties, including selected photographs, scale drawings, and discussions of age, function, and significance, per the requirements of HAR 13-276;
   e) A section concerning cultural consultations [per the requirements of HAR 13-276-5(g) and HAR 13-284-8(a)(2)];

   f) A summary of historic property categories, integrity, and significance based upon the Hawai‘i Register criteria;
   g) A project effect recommendation;
   h) Treatment recommendations to mitigate the project’s adverse effect on any historic properties recommended eligible to the Hawai‘i Register identified in the project area.

This scope of work included consultation with the SHPD Archaeology and Culture and History Branches.

1.4 Environmental Setting

1.4.1 Natural Environment

The project area is flat and averages 2 meters (6 feet) above mean sea level. The water table is typically 1.3 m to 2.0 m below the current land surface.

The modern shoreline at present day Waikīkī Beach is 400 meters (1312 ft) to the south. The old, natural shoreline approximately follows the modern shoreline in the vicinity of the project area, though it has been altered somewhat.

The average rainfall in this coastal area of Waikīkī is between 20-30 inches per year, with temperatures ranging from 60 to 85 degrees Fahrenheit (Armstrong 1973:56). Northeasterly trade winds prevail throughout the year, although their frequency varies from more than 90% during the summer months to 50% in January; the average annual wind velocity is approximately 10 miles per hour (Wilson Okamoto 1998:2-1). At the start of the inventory survey fieldwork, vegetation within the project area was limited to a few ornamental trees and shrubs in the south corners of the project area.

The USDA Soil Survey (Foote et al. 1972) classifies the project area’s soils as “Jaucas sand” (JaC) (Figure 4). Jaucas sand is described as:

> The slope range of this soil is 0 to 15 percent, but in most places the slope does not exceed 7 percent. Included in mapping were narrow strips of Beaches and areas of Pulehu, Mokuleia, and Keaau soils.
>
> In a representative profile the soil is single grain, pale brown to very pale brown, sandy, and more than 60 inches deep. In many places the surface layer is dark brown as a result of accumulation of organic matter and alluvium. The soil is neutral to moderately alkaline throughout the profile.
>
> Permeability is rapid, and runoff is very slow to slow. The hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed. The available water capacity is 0.5 to 1.0 inch per foot of soil. In places roots penetrate to a depth of 5 feet or more. Workability is slightly difficult because the soil is loose and lacks stability for use of equipment. [Foote et al. 1972]

Though classified as jaucas sand, historic maps indicate that the project area is largely in the foot print a number of ponds. While jaucas sand deposits are likely present in the project area, they are probably thin or mixed with wetland sediments. There could be high sand berms, low marshy areas, and fishpond sediments (refer to the historical documentation section, below).

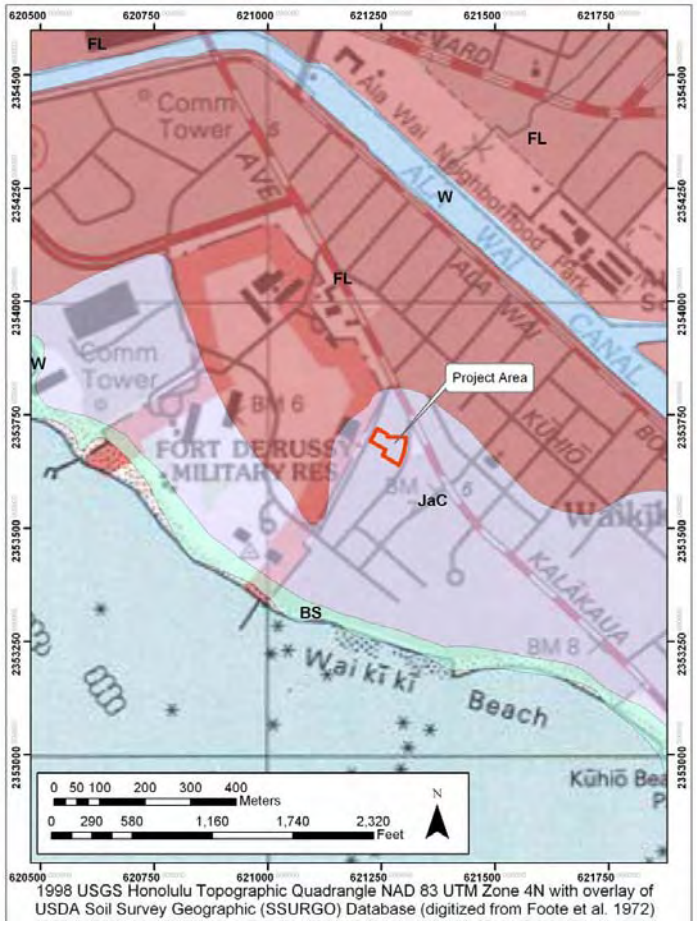


Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area. Source: Soils Survey Geographic Database (SSUGRO) 2001, U.S. Department of Agriculture

These lower areas would have been filled and subsequent development of Waikīkī permanently changed the area and allowed for its current, fully urbanized character.

1.4.2 Built Environment

The project area is located within central Honolulu and is surrounded by modern urban development including high-rise condominiums, apartments and hotels, streets, sidewalks, and utility infrastructure. The project area is bounded by Beach Walk to the east, Saratoga Road to the west, and two-story hollow tile apartment buildings to the north and south. The central portion of the project area, within Parcels 026 and 027 contained two modern structures, one of which was the Hula Hut Restaurant (refer to Figure 3). These structures were demolished in 2004 and 2005. The southwest portion of the project area, Parcel 048 contains a two-level, partially subterranean parking garage. The northwest portion of the project area is a perpetual access easement that is paved in asphalt. Less than half a dozen ornamental shrubs and small trees are still extant the very southern corners of the project area.

Section 2 Methods

This section details the methods used by CSH personnel during fieldwork, background research, laboratory analysis, cultural consultation, and the preparation of this report.

2.1 Document Review

Background research included: a review of previous archaeological studies on file at SHPD; review of documents at Hamilton Library of the University of Hawai‘i, the Hawai‘i State Archives, the Mission Houses Museum Library, the Hawai‘i Public Library, and the Archives of the Bishop Museum; study of historic photographs at the Hawai‘i State Archives and the Archives of the Bishop Museum; and study of historic maps at the Survey Division of the Department of Accounting and General Services. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona ‘Aina database (<www.waihona.com>).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of historic properties in the project area.

2.2 Field Methods

Douglas Borthwick, BA; Matthew Bell, BA; Tony Bush, BEd; Randy Groza, BA; Lleiana Loynaz, BA; Jeff Olenciaz, BA; Michelle Pammer; and Matt McDermott, MA (principal investigator) completed the fieldwork on November 21 and 22, 2006. The field effort required approximately 10 person-days to complete. CSH completed the investigation’s fieldwork under state archaeological permit number 0605 issued by SHPD, per HAR Chapter 13-282.

A brief 100 percent pedestrian inspection of the project area confirmed that all standing architecture was less than 50 years old and that there were no surface historic properties. Accordingly, the archaeological assessment focused on a program of subsurface testing to locate any buried cultural deposits, which, based on the results of background research, CSH expected to find beneath layers of historic and modern fill. For this report, historic is defined as anything older than 50 years and modern is defined as anything younger than 50 years.

The sub-surface testing program consisted of the excavation of 11 backhoe trenches. Trenches were distributed throughout the project area to provide representative coverage and to assess the stratigraphy and potential for subsurface cultural resources for the project area. Trench locations were also selected to test specific portions of the project area where, based on background research, subsurface cultural deposits were thought more likely. These trenches provided additional documentation of specific cultural remains and/or stratigraphic layers and better established their geographic distribution. The testing program also focused on characterizing the project area’s buried land surface that predated the historic and modern fill layers. High areas of this older land surface, found in only the northern boundary of the project area, were more likely to be associated with significant cultural deposits.

A standard backhoe with a two-foot wide bucket was used to excavate at least portions of each trench. Trenches varied in length and width depending on the trench’s purpose and its associated documentation requirements. Generally, trenches excavated to assess subsurface stratigraphy and prospect for subsurface cultural deposits were one backhoe bucket width wide (c. 0.80 m) by approximately six meters long. All trenches were excavated down to the underlying coral shelf or to below the water table, which was generally between approximately 1.3 and 2.0 meters below the present land surface.

Because of the high potential for human burials in Waikīkī, hand excavation in sand deposits was specifically undertaken to identify potential burial deposits. When sandy deposits were noted during excavation of the backhoe trench and were believed to be of sufficient depth to be natural, mechanical excavation stopped and an archaeologist entered the trench. Excavation continued by hand when jaucas sand deposits were identified. Because of the thick layers of fill and thin layers of pond sediment that were nearly ubiquitous throughout the project area, this hand excavation was not extensively utilized.

The stratigraphy in each trench was drawn and photographed. The sediments were described for each of the trenches using USDA soil description observations/terminology. Sediment descriptions include Munsell color, texture, consistence, structure, plasticity, cementation, origin of sediments, descriptions of any inclusions such as cultural material and/or roots and rootlets, lower boundary distinctiveness and topography, and other general observations. No cultural features were exposed, but isolated artifacts were carefully represented on the trench profile. documentation included profiles and/or plan views, collected samples, stratigraphic descriptions, and photographs.

The locations of each of the trenches were recorded using a Trimble Pro XR backpack GPS unit with a TSCI Datalogger and real-time differential correction. This unit provides submeter horizontal accuracy in the field. GPS field data were post-processed, yielding horizontal accuracy between 0.5 and 0.3 m. GPS location information was converted into GIS shape files using Trimble’s Pathfinder Office software, version 2.80, and graphically displayed using ESRI’s ArcGIS 9.1.

2.3 Laboratory Methods

Following the completion of fieldwork, all collected materials were analyzed using current standard archaeological laboratory techniques. Historic materials collected in the field were returned to the CSH laboratory, washed, examined, and, as appropriate, photographed. Historic artifacts were identified using standard reference materials and the resources available over the internet (Elliot and Gould 1988; IMACS 1992; Lebo and Wall 1997; Leidemann 1988; Bureau of Land Management 2006).

All materials collected from the identified subsurface cultural layers were sorted, identified, measured, and quantified. In general, artifact analysis focused on establishing, to the greatest extent possible, material type, formal/function type, cultural affiliation and/or age of manufacture. A very limited amount of cultural material was collected from this investigation. All of the artifacts collected are discussed in Section 7.4, Subsurface Findings.

2.4 Historic Property Evaluation for Hawai‘i Register Eligibility

Under state of Hawai‘i historic preservation legislation, historic property significance is evaluated and expressed as eligibility for listing on the Hawai‘i Register of Historic Places (Hawai‘i Register). To be considered eligible for listing on the Hawai‘i Register, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following broad cultural/historic significance criteria: “A” reflects major trends or events in the history of the state or nation; “B” is associated with the lives of persons significant in our past; “C” is an excellent example of a site type/work of a master; “D” has yielded or may be likely to yield information important in prehistory or history; and, “E” has traditional cultural significance to an ethnic group, includes religious structures and/or burials. For this report, historic property integrity and significance were assessed based on the guidance provided in National Register Bulletin # 15, “How to Apply the National Register Criteria for Evaluation.”

2.5 Consultation Effort

A Cultural Impact Evaluation was prepared by CSH for the project area in 2005 for a different project proponent, Round One Corporation, for a project that was not pursued (Chiogioji et al. 2005). Between this Cultural Impact Evaluation and the current study, the project area has not been developed or otherwise changed and the project area for these two independent projects corresponds exactly. The prior cultural impact study was designed to fulfill cultural consultation requirements pursuant to Hawai‘i Revised Statutes (HRS) Chapter 343 and the Office of Environmental Quality’s Guidelines for Assessing Cultural Impacts, as well as to support the now defunct project’s review under historic preservation review under HRS Chapter 6E-42 and HAR Chapter 13-284. Because of the short amount of time lapsed between the 2005 Cultural Impact Evaluation and the current Archaeological Assessment, and the identical project area boundaries, a project-specific Cultural Impact Evaluation would not produce significantly different results and the current study’s consultation efforts are drawn from this prior study.

Section 3 Historical Background

This section begins with a review of the available documentary evidence for the general character of the area presently identified as Waikīkī as it had evolved in the years before western contact in the later eighteenth century. The development of Waikīkī lands adjacent to and including the present project area during the nineteenth century and into the early twentieth century was recorded in increasingly detailed documentation – including photographs, maps and government records. Finally, during subsequent decades of the twentieth century, abundant documentation of Waikīkī allows a more precise focus on the changes within the project area itself up to the 1950s.

3.1 Traditional and Historical Background of Waikīkī Ahupua‘a

3.1.1 Pre-contact to Early 1800s

Waikīkī, by the time of the arrival of Europeans in the Hawaiian Islands during the late eighteenth century, had long been a center of population and political power on O‘ahu. According to Martha Beckwith (1940), by the end of the fourteenth century Waikīkī had become "the ruling seat of the chiefs of Oahu." The preeminence of Waikīkī continued into the eighteenth century and is betokened by Kamehameha's decision to reside there upon wresting control of O‘ahu by defeating the island's chief, Kalanikūpule. The nineteenth-century Hawaiian historian John Papa ‘Ī‘ī, himself a member of the *ali‘i*, described the king's Waikīkī residence:

> Kamehameha's houses were at Puaaliili, makai of the old road, and extended as far as the west side of the sands of Apuakehau. Within it was Helumoa where Kaahumanu *ma* went to while away the time. The king built a stone house there, enclosed by a fence . . . (‘Ī‘ī, 1959: 17)

‘Ī‘ī further noted that the "place had long been a residence of chiefs. It is said that it had been Kekuapoi's home, through her husband Kahahana, since the time of Kahekili" (‘Ī‘ī, 1959: 17).

Chiefly residences, however, were only one element of a complex of features – sustaining a large population – that characterized Waikīkī up to pre-contact times. Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waikīkī to lower Mānoa and Pālolo valleys. This field system – an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua – took advantage of streams descending from Makiki, Mānoa and Pālolo valleys which also provided ample fresh water for the Hawaiians living in the *ahupua‘a*. Water was also available from springs in nearby Mō ‘ili‘ili and Punahou. Closer to the Waikīkī shoreline, coconut groves and fishponds dotted the landscape. A sizeable population developed amidst this Hawaiian-engineered abundance. Captain George Vancouver, arriving at "Whyteete" in 1792, captured something of this profusion in his journals:

> On shores, the villages appeared numerous, large, and in good repair; and the surrounding country pleasingly interspersed with deep, though not extensive

> valleys; which, with the plains near the sea-side, presented a high degree of cultivation and fertility.
>
> [Our] guides led us to the northward through the village, to an exceedingly well-made causeway, about twelve feet broad, with a ditch on each side.
>
> This opened our view to a spacious plain, which, in the immediate vicinity of the village, had the appearance of the open common fields in England; but, on advancing, the major part appeared to be divided into fields of irregular shape and figure, which were separated from each other by low stone walls, and were in a very high state of cultivation. These several portions of land were planted with the eddo or *taro* root, in different stages of inundation; none being perfectly dry, and some from three to six or seven inches under water. The causeway led us near a mile from the beach, at the end of which was the water we were in quest of. It was a rivulet five or six feet wide, and about two or three feet deep, well banked up, and nearly motionless; some small rills only, finding a passage through the dams that checked the sluggish stream, by which a constant supply was afforded to the *taro* plantations.
>
> [We] found the plain in a high state of cultivation, mostly under immediate crops of *taro*; and abounding with a variety of wild fowl, chiefly of the duck kind . . . The sides of the hills, which were at some distance, seemed rocky and barren; the intermediate vallies, which were all inhabited, produced some large trees, and made a pleasing appearance. The plain, however, if we may judge from the labour bestowed on their cultivation, seemed to afford the principal proportion of the different vegetable productions on which the inhabitants depend for their subsistence. (Vancouver 1798: I, 161-164)

Further details of the exuberant life that must have characterized the Hawaiians use of the lands that included the *ahupuaʻa* of Waikīkī are given by Archibald Menzies, a naturalist accompanying Vancouver's expedition:

> The verge of the shore was planted with a large grove of cocoanut palms, affording a delightful shade to the scattered habitations of the natives. Some of those near the beach were raised a few feet from the ground upon a kind of stage, so as to admit the surf to wash underneath them. We pursued a pleasing path back to the plantation, which was nearly level and very extensive, and laid out with great neatness into little fields planted with taro, yams, sweet potatoes and the cloth plant. These, in many cases, were divided by little banks on which grew the sugar cane and a species of *Draecena* without the aid of much cultivation, and the whole was watered in a most ingenious manner by dividing the general stream into little aqueducts leading in various directions so as to be able to supply the most distant fields at pleasure, and the soil seemed to repay the labour and industry of these people by the luxuriancy of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish,

> they swarmed with water fowl of various kinds such as ducks, coots, water hens, bitterns, plovers and curlews. (Menzies 1920:23-24)

However, the traditional Hawaiian focus on Waikīkī as a center of chiefly and agricultural activities on southeastern Oʻahu was soon to change, disrupted by the same Euro-American contact that produced the first documentation (including the records cited above) of that traditional life. The *ahupuaʻa* of Honolulu - with the only sheltered harbor on Oʻahu - became the center for trade with visiting foreign vessels, drawing increasing numbers of Hawaiians away from their traditional environments. Kamehameha himself moved his residence from Waikīkī to the coast near Honolulu harbor, likely in order to maintain his control of the lucrative trade in sandalwood that had developed. By 1828, the missionary Levi Chamberlain, describing a journey into Waikīkī, would note:

> Our path led us along the borders of extensive plats of marshy ground, having raised banks on one or more sides, and which were once filled with water, and replenished abundantly with esculent fish; but now overgrown with tall rushes waving in the wind. The land all around for several miles has the appearance of having once been under cultivation. I entered into conversation with the natives respecting this present neglected state. They ascribed it to the decrease of population. (Chamberlain 1957:26)

Tragically, the depopulation of Waikīkī was not simply a result of the attractions of Honolulu (where, by the 1820s, the population was estimated at 6,000 to 7,000) but also of the European diseases that had devastating effects upon the Hawaiian populace.

3.1.2 Mid-Nineteenth Century and the Mahele

The depopulation of Waikiki, however, was not total and the *ahupuaʻa* continued to sustain Hawaiians living traditionally into the mid-ninteenth century. Land Commission Award records associated with the mid-nineteenth century Mahele document awardees continuing to maintain fishponds and irrigated and dry-land agricultural plots though on a greatly reduced scale than had been possible previously with adequate manpower.

Toward the mid-nineteenth century, the Organic Acts of 1845 and 1846 initiated the process of the Māhele, the division of Hawaiian lands, which introduced private property into Hawaiian society. In 1848 the crown, the Hawaiian government, and the *aliʻi* (royalty) received their land titles. Subsequently in the Mahele, Land Commission Awards (LCAs) were given to commoners and others who could prove residency on and use of the parcels they claimed.

An 1881 Hawaiian Government survey map by S.E. Bishop – with locations of LCA parcels indicated – provides a detailed record of the physical landscape of Waikīkī before the transformations of the twentieth century. When the map was copied in 1922, additional material from subsequent government surveys was added, including locations of road corridors not present in 1881. A portion of the 1922 copy shows fishponds within and adjacent to the present project area that can be located by the routes of Kalākaua Avenue, Saratoga Road, Kālia Road, and Lewers Road (Figure 5).

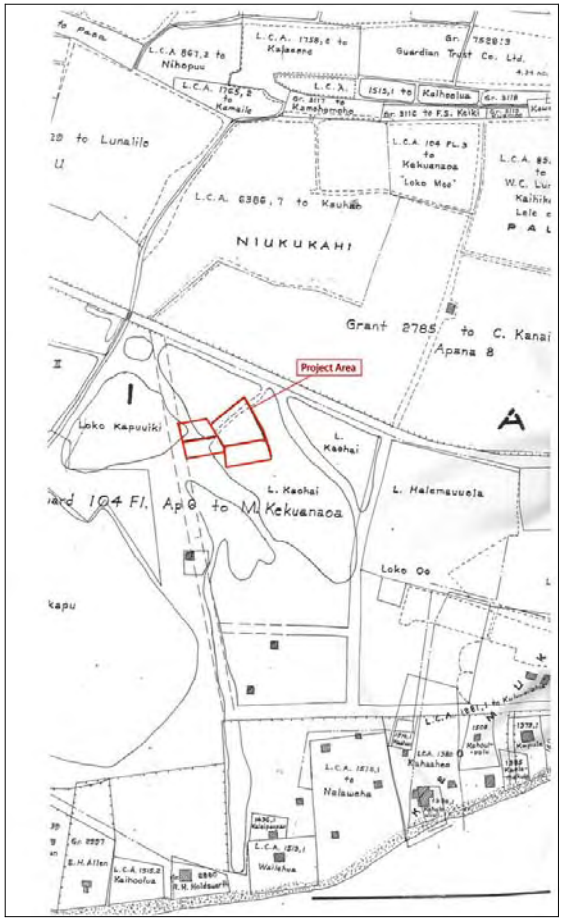


Figure 5. 1881 map of Waikīkī by S.E. Bishop with location of current project area

The two fishponds – Loko Kapuʻuiki and Loko Kaʻohai – within and extending beyond the project area are among the complex of Kālia fishponds, comprising 71.70 acres, that were awarded to Mataio Kekūanaōʻa in Land Commission Award 104-FL (Fort Lands). Kekūanaō ʻa, born in Hilo on Hawai`i Island in the 1790s, was governor of Oʻahu at the time of the Mahele. He was the father of Alexander Liholiho (King Kamehameha IV), Lot Kamehameha (King Kamehameha V), Princess Victoria Kamāmalu, Princess Ruth Keʻelikolani, and Moses Kekuaiwa. Following his death in November 1868 his daughter, Princess Ruth, inherited his lands.

Mahele records for two Land Commission Award (LCA) parcels *ma kai* of the project area – LCA 1436, parcel 1, awarded to Kaleipaopao; and LCA 1513, parcel 1 awarded to Wailehua – provide insights into traditional Hawaiian utilization of this portion of Waikīkī up to the middle of the nineteenth century.

Land Commission Award 1436 was awarded to a woman named Kalaipaopao (not "Kaleipaopao" as recorded on the 1881 map). Kalaipaopao's own testimony reveals the extent of her land holdings in Waikīkī (Native Register, vol. 3, pg.110-111):

> To the Land Commissioners, Greetings:
>
> I hereby tell of my claim for two *loʻi* in the *ʻili* of Kanuku, named Aula, of the *ahupuaʻa* of Waikiki, and some rows of taro hills from Kaahumanu I and two sections of stream gotten at the same time. Two *loʻi* were from Nalaweha, and a small houselot here at Kawehewehe and a stream called Kawehewehe. The length of my occupation of this house site and the sections of stream and the rows of [taro] hills in Hohe, is from Kaahumanu I, and the acquisition of a stream was after the work of Kīnaʻu at Kaipuni. That was when my *makuakane*, Ahia, acquired them. I was his *kaikamahine*. There were two of us by Ahia – myself, Kalaipaopao, a female, also a male; however, I inherited all of it. I also have some lands on Hawai`i at Waimea, called Pauahi, and in Kohala, called Paoo, yet, perhaps the proper procedure in the dividing of the *Moʻi* is yet to be done. This is my claim presented by me, in accordance with the good which you are doing, and it is the truth which has been told. I am, with thanks,
>
> KALAIPAOPAO
>
> Waikiki, Oahu
>
> December 9, 1847

The parcel shown on the 1881 map is Kalaipaopao's house lot. Her testimony identifies this area as Kawehewehe, which also names the stream shown on the west side of her house lot. The full 1881 map shows her taro *loʻi* parcels "in the *ʻili* of Kanuku" were located within the bounds of the present-day Ala Wai Golf Course. Her testimony also indicates that her occupancy on these lands dates back at least to the 1820s and the regency of Kaʻahumanu. The mention of also having lands on Hawaiʻi Island at Waimea and Kohala suggests that Kalaipaopao or her family,

while not themselves *ali‘i* (royalty), may have had some association with chiefs who had granted them their lands.

Land Commission Award 1513 was awarded to a man named Wailehua who identifies his Waikīkī land holdings (Native Register, vol. 3, pg. 140):

> To the Land Commissioners, Greetings:
>
> I hereby tell of my land claim at Pahupahuapuaa in Waikiki, island of Oahu, consisting of eight *lo‘i*, one houselot, one *kula*; that is what i tell you.
>
> WAILEHUA
>
> Kawehewehe at Waikiki, Dec. 4, 1847

The parcel shown on the 1881 map is Wailehua’s house lot. The full 1881 map shows that Wailehua’s taro *lo‘i* parcels were located within the bounds of the present-day Ala Wai Golf Course. A witness for Wailehua named Nalaueha gave further details on the claimant and his claim ((Native Testimony, vol.3, pg. 397):

> Wailehua’s land is from Kaahumanu I: he has been konohiki from the time of Kaahumanu to the present time under V. Kamamalu. One patch had been objected because there were no men doing prison detail. It had been Kinolu’s patch and upon his death, it was acquired by Kamaukoli.

Wailehua is revealed to have been the *konohiki* or headman of the *ahupua‘a* who received his lands directly from Ka‘ahumanu.

These Mahele documents – along with those for adjacent parcels – suggest that, up to the early historic period, this portion of Waikīkī was the location of house lots for Hawaiians who were not *ali‘i* but who may have had some association with chiefly figures. The Hawaiians living here typically had taro *lo‘i* further *ma uka* in areas presently known as McCully, Mō ‘ili`ili, and Kapahulu.

3.1.3 The Waikīkī Trail and Kawehewehe

In *Fragments of Hawaiian History* John Papa ‘Ī‘ī described the “Honolulu trails of about 1810” (1959: 89), including the trail from Honolulu to Waikīkī:

> The trail from Kawaiahao which led to lower Waikiki went along Kaananiau, into the coconut grove at Pawaa, the coconut grove of Kuakuaka, then down to Piinaio; along the upper side of Kahanaumaikai’s coconut grove, along the border of Kaihikapu pond, into Kawehewehe; then through the center of Helumoa of Puaaliilii, down to the mouth of the Apuakehau stream...(‘Ī‘ī 1959: 92)

The 1881 map (see Figure 5 above) shows Kaihikapu pond to the west of the present project area. In the *Mahele* records cited above, Kalaipaopao identifies the *ma kai* portion of the present project area as Kawehewehe.

Based on ‘Ī‘ī’s description, the trail from Honolulu to Waikīkī in 1810 coursed through the *ma kai* side of the present Ft. DeRussy grounds and continued *ma kai* of the present project area in the vicinity of Kālia Road. It is likely that this trail was a long-established traditional route through Waikīkī.

The place name Kawehewehe recorded by ‘Ī‘ī and in the *Mahele* records is also of note. It does not only identify a land area in Waikīkī; according to Hawaiian scholars, it also names:

> [The] Reef entrance and channel off Grey’s Beach, just east of the Hale-kū-lani Hotel, Waikīkī, Honolulu. The sick were bathed here as treatment. The patient might wear a seaweed (*limu-kala*) lei and leave it in the water as a request that his sins be forgiven, the lei being a symbol. *Lit.*, the removal. (Pukui *et al.* 1974: 99)

3.1.4 Later-Nineteenth Century

As the nineteenth century progressed, Waikīkī was becoming a popular site among foreigners, mostly American, who had settled on O‘ahu; an 1865 article in the Pacific Commercial Advertiser mentioned a small community that had developed along the beach. The area continued to be popular with the *ali‘i* (the Hawaiian royalty) and several notables had residences there. A visitor to O‘ahu in 1873 described Waikīkī as “a hamlet of plain cottages, whither the people of Honolulu go to revel in bathing clothes, mosquitoes and solitude, at odd times of the year” (Bliss 1873).

Other developments during the second half of the nineteenth century, prefiguring the changes that would alter the landscape of Waikīkī during this century, include the improvement of the road connecting Waikīkī to Honolulu (the route of the present Kalākaua Ave.), the building of a tram line between the two areas, and the opening of Kapiolani Park on June 11, 1877. Also in the late 1800s, the Saratoga Baths opened “at the approximate location of today’s Reef Hotel...it remained in operation for most of the 1890s, and, more than likely, bestowed its name upon Saratoga Street, the main thoroughfare between the baths and the tramway stop on Waikīkī Road [*i.e.*, the present Kalākaua Avenue]” (Hibbard and Franzen 1989: 54).

As shown in the 1881 map (see Figure 5 above), there were buildings, likely houses, standing *ma kai* of the present project area. Whether these were the residences of the Hawaiian land claimants of the Mahele or their families is uncertain.

It is more certain that traditional land-uses in Waikīkī were abandoned or modified. By the end of the nineteenth century most of the fishponds that had previously proliferated had been neglected and allowed to deteriorate. The remaining taro fields were planted in rice to supply the growing numbers of immigrant laborers imported from China and Japan, and for shipment to the west coast of the United States.

As the sugar industry throughout the Hawaiian kingdom expanded in the second half of the nineteenth century, the need for increased numbers of field laborers prompted passage of contract labor laws. In 1852 the first Chinese contract laborers arrived in the islands. Contracts

were for five years, and pay was $3 a month plus room and board. Upon completion of their contracts, a number of the immigrants remained in the islands, many becoming merchants or rice farmers.

As was happening in other locales, in the 1880s, groups of Chinese began leasing and buying, from the Hawaiians of Waikīkī, former taro lands for conversion to rice farming. The taro lands' availability throughout the islands in the late 1800s reflected the declining demand for taro as the native Hawaiian population diminished.

The Hawaiian Islands were well-positioned for rice cultivation. A market for rice in California had developed as increasing numbers of Chinese laborers immigrated there since the mid-nineteenth century. Similarly, as Chinese immigration to the islands also accelerated, a domestic market opened.

The primary market for both husked rice and paddy raised in all parts of the Hawaiian Islands was in Honolulu. The number of Chinese in the islands created a large home demand.

> In 1880 the home market was made more secure by an increase in the duty on rice imported into Hawai‘i to 1½ cents on paddy and 2½ cents on hulled rice. It resulted in further checking the importation of foreign rice and giving an immense impetus to the home product. (Coulter and Chun 1937: 13)

By 1892, Waikīkī had 542 acres planted in rice, representing almost 12% of the total 4,659 acres planted in rice on O‘ahu. Most of the former taro *lo‘i* converted to rice fields were located *ma uka* of the present Ala Wai Boulevard.

In addition to leasing and buying lands for rice farming, Chinese immigrants during the second half of the nineteenth century leased Hawaiian ponds for raising fish – including *‘ama‘ama* (mullet), *awa* (milkfish), and goldfish – and ducks. In the 1890s, ponds in the Kālia area were being leased to and managed by Chinese named Ah Kaiu and Leong Fook (Kanahele 1996: 128). While they no longer operated the Kālia fishponds, several Hawaiian fishermen were recorded as living in the Kālia area of Waikiki in the last decade of the nineteenth century; among those listed in the *Directory of the Hawaiian Kingdom* in 1890 were: George Ainoa, Kahananui, Kainoa, Kalaau, Kamanoulu, Kaua, Kanoho, Liuiwaa, Paahao, Puke, Kepa, and Nakooko (Kanahele 1996: 151).

Two historic photographs from the late nineteenth century reveal the character of the Waikīkī landscape in the vicinity of the project area. Figure 6 is a view of the Kālia fishponds, looking toward Leahi Crater (Diamond Head). Coordinating the features shown in the photograph – including the buildings and configuration of the ponds – with those indicated on the 1881 map, it is likely that the photograph shows the southeast end of the Kālia pond field that includes Loko Kapuuiki and Loko Ka‘ohai in the present project area. Figure 7 shows the Waikīkī coastline, apparently in the vicinity of the present Hālekūlani Hotel grounds. The photograph indicates the area was occupied by closely packed wooden structures – again, likely the same ones indicated in this area on the 1881 map.

Figure 6. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head. (Bishop Museum Archives)

Figure 7. View of Waikīkī shoreline, *ca.* 1880s (Bishop Museum Archives)

3.1.5 1900 to 1920

During the first decade of the twentieth century, the U.S. War Department acquired more than 70 acres in the Kālia portion of Waikīkī for the establishment of a military reservation called Fort DeRussy, named in honor of Brig. Gen. R.E. DeRussy of the Army Corps of Engineers.

> On 12 November 1908, a detachment of the 1st Battalion of Engineers from Fort Mason, California, occupied the new post...
>
> Between 1909 and 1911 the engineers were primarily occupied with mapping the island of Oʻahu. At DeRussy other activities also had to be attended to - especially the filling of a portion of the fish ponds which covered most of the Fort. This task fell to the Quartermaster Corps, and they accomplished it through the use of an hydraulic dredger which pumped fill from the ocean continuously for nearly a year in order to build up an area on which permanent structures could be built. Thus the Army began the transformation of Waikīkī from wetlands to solid ground. (Hibbard and Franzen 1986:79)

All the fishponds were filled by 1928.

The U.S. military was not alone in the effort to fill in the fishponds of Kālia during the early decades of the twentieth century. The growing population of Honolulu was creating a demand for housing in the surrounding neighborhoods. The realtor Percy Pond undertook to transform Loko Kaʻohai which occupies the majority of the present project area:

> Pond's involvement with Waikīkī began in 1911, when he purchased the Loko Kaʻohai fish pond, as well as a parcel on Diamond Head. He took land from the latter to fill the former, which he subdivided as the Beach Walk tract. The six-acre fishpond cost $3,250, or 1.5 cents/square foot, to acquire, and when filled the subdivision lots sold for 10 cents to 15 cents/square foot. By 1927, land in this area was valued at approximately $2/square foot. (Hibbard and Franzen 1986: 104)

A fire insurance map of 1914 indicates that the present project area was outside of the five areas in Waikīkī where residential and commercial structures were concentrated in the early twentieth century (Figure 8). The five areas were located: 1) *ma kai* of the project area, around the intersections of Kalia Rd., Beach Walk, and Lewers Rd.; 2) near the intersection of Ena Road and Kalākaua Avenue; 3) *ma kai* of Kālia Road on the west side of Ft. DeRussy; 4) clustered around the Moana Hotel on Kalākaua Avenue; and 5) in Kapahulu on the *ʻewa* side of Makee Road (the present Kapahulu Avenue). The fire insurance map also reveals the relative isolation of Waikīkī, in the early twentieth century, from the encroaching grid of modern Honolulu streets.

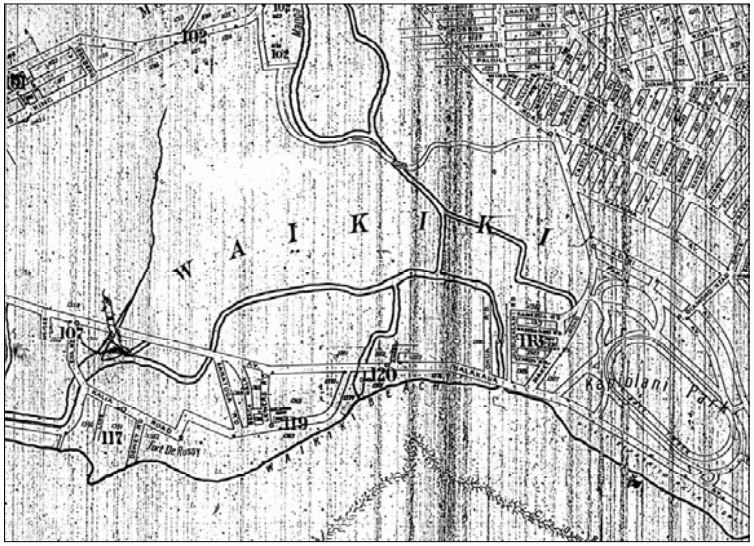


Figure 8. 1914 fire insurance map showing five residential and commercial areas of Waikīkī.

3.1.6 1920s to 1930s

Not only was the present project area transformed in the twentieth century. Great changes were taking place just offshore. The reef off Fort DeRussy was dynamited to create a channel through which 14-inch guns were floated to their emplacements at DeRussy. Kīna‘u Wilder, in her reminiscences of her family’s life in Waikīkī, recorded the devastating effects of this action:

> And then the Army brought in an eighteen inch gun to Fort de Russey [*sic*], right next to the old Lewers place which is now the famous Halekulani Hotel. Why the gun could not have been brought in by land I will never know. They brought it by barge instead. In order to reach the emplacement, it was necessary to break through the reef just beyond the spot where our raft floated. This completely changed the pattern of the currents. The beach at Waikiki was never the same. Instead of the reef holding the sands of the beach and preventing them from being carried out by the changing tides, the sand was swept through the hole in the reef, never to return. What had been a glorious sandy beach – which no other beach on earth could touch – was nothing. Property owners lost anywhere from ten to thirty feet of their ocean frontage. Everyone was forced to put up seawalls to keep from losing their houses as well. Instead of running from the grass right on out to the ocean, we had to go down slippery steps to a miserable little strip of sand which, during certain months, was non-existent. At times I could jump from our seawall right into the water. (Wilder 1978: 72)

An article in the *Honolulu Star-Bulletin* of September 2, 1933 (section 3, pg.1) confirms the loss of beach space:

> Much of the broad beach which existed in 1913 has also disappeared. It used to be possible to dive into the breakers from the porch of the bathhouse in Merlon Emmans’ back yard, but even that is no longer being done.

An insight into life this section of Waikīkī in the 1920s and 1930s is provided by Betty Dyer Sorensen whose family lived at the corner of Kalākaua Avenue and Beach Walk. Her parents, John and Mabel Dyer, had bought a 7055-square-foot lot at 290 Beach Walk for $1500 in 1918. Mrs. Sorensen describes the house her parents built there, in which she lived following her birth in 1922 until her marriage in 1946:

> The front porch was on the *mauka* (mountain) side, and it caught the mountain breezes. It was painted buff with white trim and was in the Twenties bungalow style. (Sorensen 1995: 30-31)

In the 1920s, Waikīkī was a small neighborhood

> ...with little cottages, inexpensive apartments and a few nice houses. People liked to live there because it was so close to the ocean and to transportation. The streetcars went down Kalakaua Avenue, Waikiki’s main thoroughfare, all the way from Diamond Head to the business section of downtown Honolulu, three miles

> away. The few tourists who visited either stayed with friends for at least a month or they rented a cottage. (Sorensen 1995: 1)

Mrs. Sorensen recalls that there were "lots of apartments on Beach Walk, rented by people who worked in downtown Honolulu" (Sorensen 1995: 34). However, remnants of the former Waikīkī landscape also remained near Beach Walk:

> Across the street from our house, on the corner of Beach Walk and Kalakaua Avenue, was a large swampy area known as the duck ponds. It was a several block area consisting of coral with water on the surface. It was whitish from the coral. We could dig down in our own back yard and reach the water level in less than two feet. (Sorensen 1995: 54)

Mrs. Sorensen summarizes the types of Waikīkī tourists and their accommodations she remembers during her childhood:

> The Waikiki of my growing-up years in the 1920's and 30's consisted of the Moana Hotel, the Halekulani Hotel, the Royal Hawaiian Hotel, and the Niumalu Hotel, plus several boarding-type hotels and many small cottages. Wealthy tourists came out from Chicago and other snowy areas to spend the entire winter. Some even brought their own car and their own driver, and maid. It was the talk of the town when one family from Chicago even brought a French maid. (Sorensen 1995: 55)

The project area and the surrounding neighborhood during the period Mrs. Sorensen recalls are shown in fire insurance maps of 1927 (Figure 9). Where in 1914 only a portion of the area had been developed structures now fill the entire landscape. Confirming Mrs. Sorensen's description, the neighborhood is shown to be an enclave of cottages and apartment buildings. While individual dwellings predominate, apartments, inns, and a boarding house are also present. At the intersection of Board Walk and Kalākaua Avenue is The Louidor, a boarding house near Mrs. Sorensen's family's home. On the Diamond Head side of Lewers Road is the Waikiki Court apartments (on the site of the present Ohana Reef Towers).

During the 1920s Waikīkī landscape would be transformed when the construction of the Ala Wai Drainage Canal, begun in 1921 and completed in 1928, resulted in the draining and filling in of the remaining ponds and irrigated fields of Waikīkī, including the "duck ponds" recalled by Mrs. Sorensen. The canal was one element of a plan to urbanize Waikīkī and the surrounding districts:

> The [Honolulu city] planning commission began by submitting street layout plans for a Waikiki reclamation district. In January 1922 a Waikiki improvement commission resubmitted these plans to the board of supervisors, which, in turn, approved them a year later. From this grew a wider plan that eventually reached the Kapahulu, Moiliili, and McCully districts, as well as lower Makiki and Manoa...
>
> The standard plan for new neighborhoods, with allowances for local terrain, was to be that of a grid, with 80-foot-wide streets crossing 70-foot-wide avenues at

> right angles so as to leave blocks of house lots about 260 by 620 feet. Allowing for a 10-foot-wide sidewalk and a 10-foot right-of-way [alley] down the center of each block, there would be twenty house lots, each about 60 by 120 feet, in each block. (Johnson 1991:311)

During the course of the Ala Wai Canal's construction, the banana patches and ponds between the canal and the *ma uka* side of Kalākaua Avenue were filled and the present grid of streets was laid out. These newly created land tracts spurred a rush to development in the 1930s. An article in the Honolulu Star-Bulletin in 1938 extolled the area's progress:

> The expansion of apartment and private residence construction is no secret. Examination of building permits will show that more projects have been competed during the past year, and more are now underway in this area, than in any other section of the territory.
>
> These developments are being made by island residents who have recognized the fact that Waikiki presents the unparalleled possibility for safe investment with excellent return. (Newton 1938: 10)

The writer speculated that the "future of Waikiki is assured."

A U.S. Army aerial photograph of 1935 shows the agglomeration of apartment buildings and private residences that completely filled the present project area and the surrounding neighborhood (Figure 10).

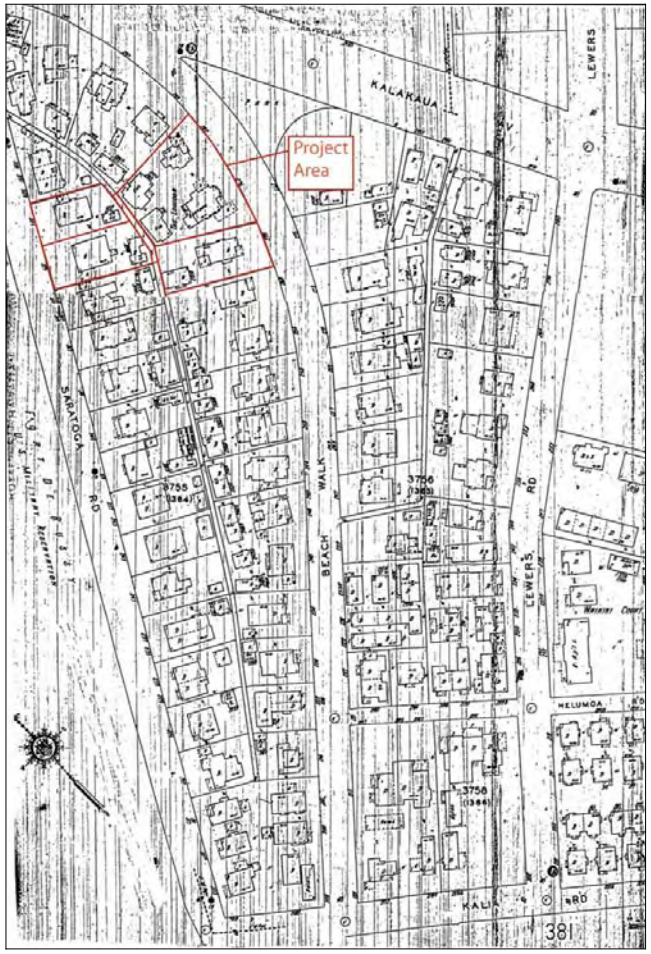


Figure 9. 1927 fire insurance map with parcels comprising present project area indicated.

Figure 10. 1935 aerial photograph showing the project area and the surrounding areas of Waikīkī fully developed (US Army-Hawaii Archives)

3.1.7 1940s

The entrance of the United States into World War II following the Japanese bombing of Pearl Harbor on December 7, 1941 put on hold plans for the development of Waikīkī as a tourist destination. Until the war’s end in 1945, the tourist trade was non-existent “…....since the Navy travel to and from Hawai‘i and did not allow pleasure trips” (Brown 1989: 141). For the duration of the war, Waikīkī was transformed into a recreation area for military personnel.

> It was not the same Waikiki as before the war, though; barbed wire barricades now lined its sands, and there were other changes too. Fort DeRussy became a huge recreation center, with a dance hall called Maluhia that attracted thousands of men at a time. The Moana Hotel continued to function, but many other establishments and private homes in the area were taken over by the military. (Brown 1989: 141)

In August 1943, four cases of dengue fever, transmitted by the bite of infected Aedes mosquitoes, were reported in Waikīkī. During the epidemic that ensued, more than 1000 people were afflicted. On August 8, 1943, the military declared “out-of-bounds” the portion of Waikīkī bordered by the ocean, the Ala Wai Canal, and Ka‘iulani Avenue. “Without servicemen or tourists, Waikiki district seemed a deserted village” (Hodge and Ferris 1950:55).

Nearing the war’s end, concerns began arising over the future of Waikīkī. An article in the *Honolulu Advertiser* of July 16, 1945 (sec. 1, pg.1) decried “honky-tonks” that had sprung up in Waikīkī during the course of the war, and asked: “Can anyone look at present-day Kalakaua Ave. – lined with makeshift curio shops, noisy ‘recreation’ centers, eyesores that pass under the name of lunchrooms and miscellany of ‘joints’ – and hope that Waikiki can stage a comeback [as a tourist destination]?”

3.1.8 1950s

Fire insurance maps of 1951 reveal changes throughout the present project area and the surrounding properties since the neighborhood was documented on the 1927 map (Figure 11). Retail establishments now fill the parcels along Kalākaua Avenue. Rooming houses and apartments appear on parcels along Saratoga Road, Beach Walk, and Lewers Road. Many of the houses shown on the 1927 map have now been divided into duplexes and triplexes.

By the mid-1950s there were more than fifty hotels and apartments from the Kālia area to the Diamond Head end of Kapi‘olani Park. Located within and in the vicinity of the present project area were the Reef Hotel and Edgewater Hotel on Kālia Road, the Ainahau apartments at 260 Lewers Road, the Breakers apartment-hotel at 250 Beachwalk, the Coconut Grove at 205 Lewers Rd., the Hawaiiana Hotel at 260 Beachwalk, the Leialoha Hotel at 233 Beachwalk, the Malihini Hotel at 217 Saratoga Rd., the Marjo apartment-hotel at 342 Lewers Rd., the Polynesian Hotel at 314 Beachwalk, and the Polynesian apartment-hotel at 339 Saratoga Rd.

Development of hotel properties in Waikīkī during the 1950s raised concern over public rights of way for access to the Waikīkī beach, which like all of Hawai‘i’s beaches is public from the ocean to the high water mark. An article in the *Honolulu Star-Bulletin* of January 16, 1957

(pg.10) noted that there were no public rights of way to the beach for “nearly a half mile strip in the heart of Waikiki” from “the Diamond Head side of the SurfRider Hotel to the Ewa side of the Halekulani Hotel.”

The lack of public access ways to the beach was of real concern since the population, by the mid-1950s, was not limited to transient tourists but also included 11,000 permanent residents living in 4,000 apartments in stucco or frame buildings. As the 1951 fire insurance map indicates, many of these apartment buildings were located in and around the current project area.

Figure 11. 1951 fire insurance map with parcels comprising present project area indicated.

3.2 Summary

Historical documentation indicates that, at the mid-nineteenth century, within the present project area were two fishponds, Loko Kapu‘uiki and Loko Ka‘ohai, that were part of the royal fishpond complex of the Kālia area. Some high ground existed in the project area, primarily under the existing parking structure in parcel 048. A small berm or causeway shown on an 1881 map by S.E. Bishop also divided part of Loko Ka‘ohai along the northern boundary of the project area.

Evidence from nineteenth-century documents (the writings of John Papa ‘Ī‘ī, Mahele records, and an 1881 map) indicates that a trail from Honolulu to Waikīkī and beyond ran *ma kai* of the project area. It is likely that this trail was the traditional Hawaiian route through Waikīkī.

During the second half of the nineteenth century the Kālia fishponds, including Loko Ka‘ohai, were leased to and operated by Chinese immigrants. An early indication of Waikīkī’s future, *ma kai* of the project area the Saratoga Baths opened on the site of the present Outrigger Reef on the Beach. Despite these changes, the Hawaiians of the Kālia area apparently were not completely displaced in the latter 1800s since several Hawaiian fishermen were recorded as living in Kālia during the 1890s.

During the first decades of the twentieth century, the current project area would be among the first developed lands of Waikīkī. Loko Kapu‘uiki would be filled for the creation of Ft. DeRussy and the two Loko Ka‘ohai were filled to create the Beach Walk tract in 1911. In subsequent decades, the project area was among an enclave of individual residences – typically cottages – and apartment complexes. In the 1950s construction began on the first large hotel structures that today surround the project area.

Section 4 Previous Archaeological Research

The *ahupua‘a* of Waikīkī, in the centuries before the arrival of Europeans, was an intensely utilized area, with abundant natural and cultivated resources, that supported a large population. In the nineteenth and early twentieth centuries, after a period of depopulation, Waikīkī was reanimated by Hawaiians and foreigners residing there, and by farmers continuing to work the irrigated field system, which had been converted from taro to rice. Farming continued up to the first decades of this century until the Ala Wai Canal drained the remaining ponds and irrigated fields. Remnants of the pre-contact and historical occupation of Waikīkī have been discovered and recorded in archaeological reports, usually in connection with construction activities related to urban development, or infrastructural improvements. These discoveries, which have occurred throughout Waikīkī, have included many human burials, traditional Hawaiian and historic, as well as pre-contact Hawaiian and historic cultural deposits. A full list of projects conducted in the Waikīkī area is presented in Table 1. A discussion of projects focusing on burials (Figure 12) follows.

N.B. Emerson reported on the uncovering of human burials during the summer of 1901 on the property of James B. Castle - site of the present Elks Club - in Waikīkī during excavations for the laying of sewer pipes (Emerson 1902:18-20). Emerson noted:

> The soil was white coral sand mixed with coarse coral debris and sea-shells together with a slight admixture of red earth and perhaps an occasional trace of charcoal. The ground had been trenched to a depth of five or six feet, at about which level a large number of human bones were met with, mostly placed in separate groups apart from each other, as if each group formed the bones of a single skeleton. Many of the skulls and larger bones had been removed by the workmen before my arrival, especially the more perfect ones [Emerson 1902:18].

Emerson’s report on the find describes the remains of at least four individuals, all presumed to be Hawaiian. Associated burial goods were also exposed during excavation; these included “a number of conical beads of whale-teeth such as the Hawaiians formerly made” and “a number of round glass beads of large size”. The glass beads “can be assigned with certainty to some date subsequent to the arrival of the white man” (Emerson 1902:19). Also located with the beads was “a small sized *niho-palaoa*, such as was generally appropriated to the use of the chiefs” which had been “carved from the tooth of the sperm-whale” and which was “evidently of great age” (Emerson 1902:19).

In the 1920s and 30s the first systematic archaeological survey of O‘ahu was conducted by J. G. McAllister (1933). He recorded four *heiau* (temples), three of which were located at the *mauka* reaches of Waikīkī *Ahupua‘a* in lower Mānoa Valley. The fourth *heiau* – Papa‘ena‘ena - was located at the foot of Diamond Head crater in the environs of the present Hawai‘i School for Girls. Papa‘ena‘ena Heiau is traditionally associated with Kamehameha I, who was said to have visited the *heiau* before setting off to battle for Ni‘ihau and Kaua‘i in 1804. Five years later, according to John Papa ‘Ī‘ī, Kamehameha placed at Papa‘ena‘ena the remains of an adulterer - "all prepared in the customary manner of that time" (‘Ī‘ī 1959:50-51).

Table 1.Previous Archaeological Investigations in Waikīkī Ahupua‘a

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
McAllister 1933	Island-wide survey	All of O‘ahu	Waikīkī listed as Site 60.
Nakamura 1979	History Graduate Thesis	Waikīkī	History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.
Neller 1980	Monitoring Report	Kālia Burial Site: Hilton Hawaiian Village	Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890’s, no prehistoric Hawaiian sites.
Bishop Museum 1981	Testing, Excavations, & Monitoring	Halekulani Hotel	Intact cultural deposits found.
Neller 1981	Reconnaissance Survey	Halekulani Hotel	Limited background research on area.
Acson 1983	Historical Research	‘Ewa to Diamond Head	Nine walks through Waikīkī, photos, maps and historical info.
Bishop Museum 1984	Burial Remains List	Waikīkī Ahupua‘a	Listing of burial remains found in Waikīkī Ahupua‘a at the Bishop Museum.
Davis 1984	Archaeological and Historical Investigation	Halekulani Hotel	48 historic and prehistoric features excavated.
Neller 1984	Informal Narrative Report	Paoakalani Street	Recovery of human skeletons at construction site.
Center for Oral History 1985	Oral Histories, Volumes I-IV	Waikīkī	Oral Histories of Waikīkī, 1900-1985, Volumes I-IV.
Griffin 1987	Burial Recovery Report	Along Kalākaua Ave. near corner of Kai‘ulani St.	Bones removed and bagged by construction crew, burial found in *makai* wall of gas pipe excavation.
SHPD 1987	Burial, PA Report	Kalākaua Ave.	From excavation adjacent to Moana Hotel (SIHP -9901).
Davis 1989	Reconnaissance Survey & Historical Research	Fort DeRussy	Fishponds and other features are buried in this area. SIHP -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit.
Riford 1989	Background Literature Search	TMK: 2-6-014:039	List of literature pertaining to Waikīkī area.
Rosendahl 1989	Inventory Survey, Prelim. Report	Fort DeRussy	Historic artifacts, no human remains

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
Athens 1990	Letter	TMK: 2-6-023:025	Letter to SHPD listing human remains at IARII lab from Pacific Beach Hotel, and Barbers Point Generating Station.
Hurst 1990	Historical Literature Search	Waikikian Hotel	Background and planning document. No fieldwork was done.
Chigioji 1991	Assessment	2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 & 42-45	Formerly a corner of the ‘Āinahau estate; remainder of parcels, former *‘auwai*, *kalo* and rice fields; test excavations and specific sampling strategy recommended.
Davis 1991	Monitoring Report	Fort DeRussy	See also Davis 1989 for an earlier account. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century and one human burial.
Kennedy 1991	Monitoring Report	TMK: 2-6-022:014 IMAX theatre location	Pollen and bulk-sediment ^{14}C samples from ponded sediments were recovered. The three ^{14}C dates and pollen sequence were inverted.
SHPD 1991	Public Inquiry	TMK: 2-6-024:036	Bones were determined to be non-human and part of the extensive fill material present.
Simons et al. 1991	Interim Field Study, Monitoring & Data Recovery	Moana Hotel Area	8 burials; preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered.
Hurlbett 1992	Monitoring Report	TMK: 2-6-008:001	Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.
Pietru-sewsky 1992a	PA Report	Moana Hotel	Right half of human mandible found by hotel guest.
Pietru-sewsky 1992b	PA Report	Lili‘uokalani Gardens Site, Hamohamo	Human Remains from the Lili‘uokalani Gardens Site, Hamohamo, Waikīkī, O‘ahu.
Rosendahl 1992	Monitoring Report	Hilton Hawaiian Village	Identified12 historic refuse pits, 3 historic to modern trenches.
Streck 1992	Memorandum for Record	Fort DeRussy	Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.
Cleghorn 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Remains of one human individual, mandible identified.

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
Dagher 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Human remains of at least one person identified, excavation recommended.
Dega & Kennedy 1993	Inadvertent Discovery of Remains	Waikīkī Aquarium	Discovery of unidentified bone fragments, all remains turned over to SHPD.
Hammatt & Chiogioji 1993	Archaeological Assessment	16-Acre Portion of the Ala Wai Golf Course	Not associated with any known surface archaeological site; however prehistoric and early historic occupation layers associated with *lo‘i* system remain intact below modern fill. Specific sampling strategy and potential burial testing recommended.
Maly et al. 1994	Archaeological and Historical Assessment Study	Convention Center Project Area	Recommend subsurface testing to determine presence or absence of cultural deposits and features.
McMahon 1994	SHPD Burial Report	Intersection of Kalākaua and Kuamo‘o Streets	Inadvertent Burial Discovery: misc. bones uncovered in back dirt pile during construction. Follow up by CSH.
Hammatt & Shideler 1995	Sub-surface Inventory Surface	Hawai‘i Convention Center Site, 1777 Kalākaua Ave.	No further work recommended.
Jourdane 1995	Inadvertent Discovery of Human Remains	Paoakalani Avenue	Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.
Simons et al. 1995	Data Recovery Excavations	Fort DeRussy	Historic and prehistoric artifacts, and midden materials collected from 7 occupation layers. 6 prehistoric cultural features recorded: *‘auwai* bunds and channels, fishpond walls and sediments, a possible *lo‘i*, and hearths.
Cleghorn 1996	Inventory Survey	TMK: 2-6-016:23, 25, 26, 28, 61, 69	7 backhoe trenches excavated, no sites located.
Grant 1996	Historical Reference	Waikīkī	Historical information about Waikīkī prior to 1900.
Hammatt & Shideler 1996	Data Recovery	Hawai‘i Convention Center Site	No clear evidence that Kuwili Pond sediments present in project area; no further work recommended.
McDermott et al. 1996	Inventory Survey	‘Āinahau Estate	Buried remnants of *‘auwai* and *lo‘i* and human burial found. ^{14}C dates

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
Denham et al. 1997	Data Recovery Report	Fort DeRussy	Excavations conducted at fishponds, ^{14}C dates mid-17th C.
Denham & Pantaleo 1997	Monitoring and Excavations Report	Fort DeRussy	Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ^{14}C dates
Beardsley & Kaschko 1997	Monitoring and Data Recovery Report	Pacific Beach Hotel Office Annex	Traditional Hawaiian cultural deposits and 2 human burials. 3 ^{14}C dates.
Hammatt & Chiogioji 1998	Assessment	King Kalākaua Plaza Phase II	No surface archaeological sites, documented human burials, presence of subsurface cultural deposits (both of pre-contact Hawaiian and historic provenance).
Hammatt & McDermott 1999	Burial Disinterment Plan and Report	Kalākaua Avenue	Two human burials found.
Perzinski et al. 1999	Monitoring Report	Along Ala Wai Blvd., Kalākaua Ave., Ala Moana Blvd., & ‘Ena Rd.	Two human burials found (1 preceding monitoring); pockets of undisturbed layers still exist. Burial #2 previously disturbed.
Rosendahl 1999	Interim Report: Inventory Survey	Fort DeRussy	This area is part of the old shoreline.
Hammatt & Chiogioji 2000	Archaeological Assessment	Honolulu Zoo Parcel	Majority of zoo parcel unlikely to yield significant cultural deposits. However, strong possibility of significant subsurface cultural deposits in the SW portion. Monitoring is recommended in this area.
LeSuer et al. 2000	Inventory Survey	King Kalākaua Plaza Phase II	SIHP -5796 (pre-contact and historic wetland surface) has been adversely affected by land alteration of the project area. Previously identified SIHP -4970 (‘Auwai O Pau) has been adequately documented.
Perzinski et al. 2000	Burial Findings	Kalākaua Ave. between Kai‘ulani & Monsarrat Avenues	44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.
Cleghorn 2001	Mitigation	Burger King Construction Site	Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC’s store.
Corbin 2001	Inventory Survey	Hilton Waikikian Property	No archaeological sites were found during excavations of the area.

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
Elmore & Kennedy 2001	Burial Report	Royal Hawaiian Hotel	Human remains found during trench excavations for conduit. The in situ remains were left in place, while the disturbed remains were re-interred with the others.
McGuire & Hammatt 2001	Cultural Assessment for Waikīkī Beach Walk Project	Along Lewers St., Beach Walk, Kālia Rd. & Saratoga Rd.	Primary cultural concern identified as possible inadvertent burial discoveries. Cultural monitoring recommended for all subsurface work within project area.
Perzinski & Hammatt 2001a	Monitoring Report	Kapi‘olani Bandstand	A charcoal layer was observed, concentrated on the SW side of the bandstand; recovered indigenous basalt lamp with a handle, from the SE end of the bandstand.
Perzinski & Hammatt 2001b	Monitoring Report	Kapi‘olani Park	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Perzinski & Hammatt 2001c	Monitoring Report	Kalākaua Avenue from the Natatorium to Poni Mo‘i Road	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Rosendahl 2001	Assessment Study	Outrigger Beach Walk	Assessment of previous archaeology and historical literature.
Winieski & Hammatt 2001	Monitoring Report	TMK: 1-2-6-025:000	There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.
Borthwick et al. 2002	Inventory Survey	71,000 sq. ft. parcel, TMK: 2-6-016:002	No burials were found during testing; absence of dry jaucas sand deposits indicate that burial finds are unlikely in project area.
Bush and Hammatt. 2002	Monitoring Report	Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.	Encountered 4 human burials, probably pre-contact Native Hawaiians; several historic trash pits; entire pig within an *imu* pit (estimated date, A.D. 1641-1671); gleyed clays associated with former ponds.
Calis 2002	Monitoring Report	Lemon Road	No historic deposits, major previous disturbance.
Elmore & Kennedy 2002	Monitoring Report	Fort DeRussy	No findings.

Reference	Type of Investigation	General Location	Findings (SIHP numbers prefixed with 50-80-14)
Mann & Hammatt 2002	Monitoring Report	Lili‘uokalani Avenue and Uluniu Avenue	5 burial finds of 6 individuals; two historic trash pits.
Putzi & Cleghorn 2002	Monitoring Report	Hilton Hawaiian Village	No findings during monitoring of trench excavations for sewer connections.
Winieski, Perzinski, Shideler et al. 2002	Monitoring Report	Kalākaua Ave. between Ka‘iulani and Monsarrat Avenues.	44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, & charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized *muliwai* Kukaunahi also observed.
Winieski, Perzinski, Souza et al. 2002	Monitoring Report	Kūhiō Beach	Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.
Bush et al. 2003	Monitoring Report	International Marketplace	Historic trash found.
Tome & Dega 2003	Monitoring Report	Waikīkī Marriot	One isolated, not in situ, possible human bone fragment found. Recommends monitoring during future work.
Tulchin & Hammatt 2003	Archaeological & Cultural Impact Assessment	2284 Kalākaua Ave.	Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.
Freeman et al. 2005	Archaeological Inventory Survey	Hobron Lane	Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and fishpond sediment.
O’Hare et al. 2005	Archaeological Inventory Survey	Kaio‘o Drive	SIHP -6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.

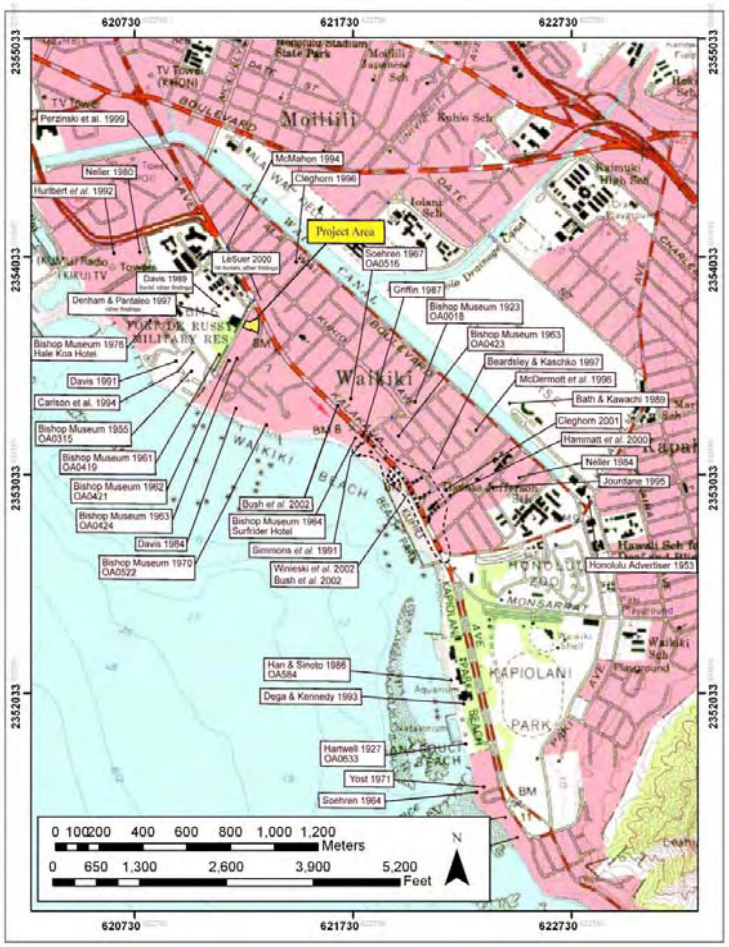


Figure 12. Previous Archaeological Work in Waikīkī, focusing on locations of burials. Also shown are three similar investigations in the Kālia area.

In 1963, two human skulls and other human remains were discovered in a construction trench at 2431 Prince Edward St. (Bishop Museum site Oa-A4-23, cited in Neller 1984).

Multiple burials were encountered in 1963 during excavation for the construction of the present Outrigger Canoe Club at the Diamond Head end of Kalākaua Avenue. As reported in a newspaper article on Jan. 24, 1963:

> The Outrigger Canoe Club yesterday dedicated its new site [on land adjacent to and leased from the Elks Club], an ancient Hawaiian burial ground in Waikīkī. . .
>
> Robert Bowen of the Bishop Museum has been working closely with Ernest Souza, Hawaiian Dredging superintendent, on the removal of skeletons unearthed on the site, between the Colony Surf and the Elks Club. . . .
>
> Most of the bodies were buried in the traditional hoolewa position, with the legs bound tightly against the chest.
>
> One of the skeletons, Bowen said, shows evidence of a successful amputation of the lower forearm, indicating that the Hawaiians knew this kind of operation before the arrival of Europeans.
>
> The ages of the skeletons ranged from children to 40-year-old men and women. The average life span of the Hawaiians at the time was about 32 years [*Honolulu Star-Bulletin*; Jan. 24, 1963: 1A].

A total of 27 burials were encountered (Yost 1971: 28). Apparently, no formal archaeological report on the burials was produced.

In 1964, sand dune burials, a traditional Hawaiian mortuary practice, were revealed as beach sand eroded fronting the Surfrider Hotel (Bernice Pauahi Bishop Museum 1984).

In 1976, during construction of the Hale Koa Hotel, adjacent to the Hilton Hawaiian Village Hotel, six burials were unearthed, five of apparent prehistoric or early historic age, and one of more recent date (Bernice Pauahi Bishop Museum1984).

In 1980, three burials were exposed at the Hilton Hawaiian Village during construction of the hotel’s Tapa Tower. Earl Neller of the (then named) State Historic Preservation Program was called in upon discovery of the burials and conducted fieldwork limited to three brief inspection of the project area. Neller’s (1980) report noted:

> The bones from three Hawaiian burials were partially recovered; one belonged to a young adult male, on a young adult female, and one was represented by a single bone. An old map showed that rapid shoreline accretion had occurred in the area during the 1800s, and that the beach in the construction area was not very old. It is possible the burials date back to the smallpox epidemic of 1853. It is likely that burials will continue to be found in the area. It is also possible that early Hawaiian sites exist farther inland, beneath Mō‘ili‘ili, adjacent to where the shoreline would have been 1000 years ago [Neller 1980:5].

Neller also documented the presence of trash pits, including one from the 1890s which contained "a large percentage of luxury items, including porcelain tablewares imported from China, Japan, the United States, and Europe" (Neller 1980:5). He further notes:

> It is suspected that other important historic archaeological sites exist in the highly developed concrete jungle of Waikīkī, with discrete, dateable trash deposits related to the different ethnic and social groups that occupied Waikīkī over the last 200 years [Neller 1980:5].

Between December 1981 and February 1982, archaeologists from the Bishop Museum led by Bertell Davis conducted a program of excavations and monitoring during construction of the new Halekūlani Hotel (Davis 1984). Six human burials were recovered along with “animal burials [and] cultural refuse from prehistoric Hawaiian firepits, and a large collection of bottles, ceramics, and other materials from trash pits and privies dating to the late 19th century” (Davis 1984:i). Age analysis of volcanic glass recovered from the site led Davis to conclude: “For the first time we can now empirically date . . . settlement in Waikīkī to no later than the mid-1600s” (Neller 1980:5). Just as significant to Davis was the collection of historic-era material at the Halekūlani site; he states:

> [The] Halekūlani excavations clearly demonstrate...that there is a definite need to consider historic-period archaeology as a legitimate avenue of inquiry in Hawaiian research. Furthermore, archaeology in the urban context can yield results every bit as significant as in less developed areas. Development in the 19th and early 20th centuries clearly has not destroyed all archaeological resources in Waikīkī, Honolulu, or in any of the other urbanized areas of Hawai‘i [Neller 1980:5].

In 1983, at the Lili‘uokalani Gardens condominium construction site, seven traditional Hawaiian burials were recovered (Neller 1984). This had been the site of a bungalow owned by Queen Lili‘uokalani at the end of the nineteenth century. In addition to the burials, the site contained plentiful historic artifacts, and a pre-historic cultural layer pre-dating the burials.

In 1985, International Archaeological Research Institute, Inc. performed archaeological monitoring and data recovery at the Pacific Beach Hotel Office Annex (Beardsley and Kaschko 1997). Two traditional Hawaiian burials were discovered and removed. Intact buried traditional Hawaiian cultural deposits, including a late pre-contact habitation layer, contained pits, firepits, post molds, artifacts, and food debris. The artifacts included basalt and volcanic glass flakes and cores, a basalt adze and adze fragments, worked pearl shells, a coral file and abraders, and a pearl shell fishhook fragment. Additionally, a late nineteenth-century trash pit was discovered, which contained a variety of ceramics, bottles, and other materials.

During 1985 and 1986, archaeologists from Paul H. Rosendahl, Ph.D. Inc. conducted archaeological monitoring at the site of the Mechanical Loop Project at the Hilton Hawaiian Village, Waikīkī. Much of this project area was disturbed by historic and modern construction and modification. Fifteen subsurface features were uncovered during the monitoring, all of which were determined to be historic trash pits or trenches. The dating of these features was based on dating the artifactual material they contained. All 15 features are thought to post-date 1881 based

on this artifact analysis. The three partial burials reported by Neller (1980) were found within this project area (see above). No further burials were encountered during the PHRI field work (Hurlbett et. al. 1992).

In 1987, a human burial was discovered and removed at the intersection of Kalākaua Avenue and Ka‘iulani Street during excavations for a gas pipe fronting the Moana Hotel (Griffin 1987).

In1988, the Moana Hotel Historical Rehabilitation Project (Simons et. al. 1991) encountered human remains that amounted to at least 17 individuals. Based on stratigraphic association these burials were interred over time as the land form at the site changed. The sediment surrounding these burials yielded traditional midden and artifact assemblages. The burials and human remains were found in the Banyan Court and beneath the hotel itself.

In 1989, skeletal remains were unearthed on the grounds of the Ala Wai Golf Course during digging of an electrical line trench for a new sprinkler system. The trench had exposed a pit containing two burials (Bath and Kawachi 1989: 2). The report suggests that one of the burials may have been disturbed earlier during grading for the Territorial Fair Grounds. The osteological analysis included in the report concludes that both sets of remains "appear ancient." (Bath and Kawachi 1989: 2)

Davis’ (1989, 1991) excavation and monitoring work at Fort DeRussy documented substantial subsurface archaeological deposits - prehistoric, historic, and modern. These deposits included buried fishpond sediments, ‘*auwai* [irrigation ditch] sediments, midden and artifact enriched sediments, structural remains such as post holes and fire pits, distinctive clay mounds of constructed ‘*auwai* and similar berms presumed to be fishpond walls, historic trash pits, and a human burial. Davis’ (1991) report documents human activity in the Fort DeRussy beach front area from the sixteenth century to the present.

The work at Fort DeRussy continued in 1992 when BioSystems researchers built upon Davis’ work (Simons et al. 1995). BioSystems research documents the development and expansion of the fishpond and ‘*auwai* system in this area. The ‘*auwai* system was entered on the State Inventory of Historic Properties (SIHP) as State Site 50-80-14-4970. Remains of the fishpond and ‘*auwai* deposits, as well as habitation deposits, were documented below modern fill deposits. Constructed bunds and berms were documented, both with sediment retaining double alignments of coral boulders and mounded wetland sediment with associated pre-contact and historic artifacts. This research, along with that of Davis (1991), clearly demonstrates that historical document research can be an effective guide to locating late prehistoric/early historic subsurface deposits, even amidst the development of Waikīkī.

In 1992, Hurlbett et al. (1992) conducted additional monitoring and testing in this same area as Neller (1980). The state site number -2870 was given to the three burials first found by Neller. Additional subsurface features, postdating 1881, were found during trenching operations.

In 1992 Data Recovery excavations were undertaken at Fort DeRussy by Garcia and Associates under contract to BioSystem Analysis, Inc. (Denham and Pantaleo 1997). Six previously identified sites were investigated. One site (SIHP # 50-80-14-4570) was characterized by such features such as a firepit, coral rock concentration, and postholes. An ‘auwai and bund system (50-80-14-4970) revealed two channels, three bunds, and a charcoal stain. Another site (50-80-14-4579) revealed a number of features related to permanent historic occupation, and

possible intermittent prehistoric use, such as five firepits, two historic middens, and a human burial. In addition, three fishponds, Loko Paweo I (50-80-14-4570, Loko Ka‘ihikapu (50-80-14-4575), and Loko Paweo II (50-80-14-4576) were identified. Berms and bunds identified during the excavations were characterized by sediment retention techniques such as coral boulder alignments and repeated sequences of construction indicated by artifactual evidence of land surface use – including fire pits, bone, and dispersed marine shell midden.

The realignment of Kālia Road at Fort DeRussy in 1993 uncovered approximately 40 human burials. A large majority of these remains were recovered in a large communal burial feature (Carlson et. al. 1994). The monitoring and excavations associated with this realignment uncovered a cultural enriched layer that contained post holes.

In 1993, during construction activities at the Waikīkī Aquarium fragmentary human remains were discovered scattered in a back dirt pile, although no burial pit was identified (Dega and Kennedy 1993).

On April 28, 1994, an inadvertent burial discovery was made during excavation for a water line at the intersection of Kalākaua Avenue and Kuamo‘o Street (just *mauka* of Fort DeRussy). These remains represented a single individual (McMahon 1994).

In 1995, the remains of one individual were discovered in situ during construction activities on Paoakalani Street, fronting the Waikīkī Sunset Hotel (Jourdane 1995).

In 1996, Pacific Legacy, Inc. conducted an archaeological inventory survey of the block bounded by Kalākaua Avenue, Kūhiō Avenue, ‘Olohana Street, and Kālaimoku Street (Cleghorn 1996). The survey included excavation of seven backhoe trenches. The subsurface testing indicated that

> . . . this area was extremely wet and probably marshy. This type of environment was not conducive for traditional economic practices. . . . The current project area appears to have been unused because it was too wet and marshy. Several peat deposits, containing the preserved remains of organic plant materials were discovered and sampled. These deposits have the potential to add to our knowledge of the paleoenvironment of the area [Cleghorn 1996:15].

The report concluded that no further archaeological investigations of the parcel were warranted since “no potentially significant traditional sites or deposits were found”, but cautioned of the “possibility, however remote in this instance, that human burials may be encountered during large scale excavations” (Cleghorn 1996:15).

In 1996, a traditional Hawaiian burial was discovered and left in place during test excavations on two lots at Lili‘uokalani Avenue and Tusitala Street (McDermott et al. 1996). Indigenous Hawaiian artifacts and historic artifacts were also found within the project area.

In 1997, during archaeological monitoring by CSH for the Waikīkī Force Main Replacement project, scattered human bones were encountered on ‘Ōhua Street (Winieski and Hammatt 2000). These included the proximal end and mid-shaft of a human tibia, a patella, and the distal end and mid-shaft of a femur. These remains occurred within a coralline sand matrix that had been

heavily disturbed by previous construction, and by the on-going construction project. No precise location for the original burial site was identified.

In April 1999, two human burials were inadvertently encountered near the intersection of Ena Road and Kalākaua Avenue during excavation activities for the first phase of the Waikīkī Anti-Crime Lighting Improvements Project (Perzinski et al. 1999).

From July 1999 to October 2000, four sets of human remains were inadvertently encountered during excavation activities relating to the Waikīkī Anti-Crime Street Lighting Improvement project along portions of Kalākaua Avenue (Bush et al. 2002). The first burial was encountered on Kalākaua Avenue, just before Dukes Lane and assigned State Site 50-80-14-5864. The burial was left in place however, and the light post was repositioned. The second burial was encountered at the intersection of Kalākaua Avenue and Ka‘iulani Avenue. Earlier, during archaeological monitoring for the water mains project, two burials were encountered in the immediate area of the second burial find; they were assigned state site 50-80-14-5856 features A and B. Due to the close proximity to the previously encountered burials, the second burial was assigned the same State Site 50-80-14-5856, and designated feature C. Burials 3 and 4 were recovered at the intersection of Kalākaua Avenue and Kealohilani, near an area of concentrated burials assigned State Site 50-80-14-5860 during monitoring for the water mains project. Consequently, burials 3 and 4 were also assigned State Site 50-80-14-5860, features U and V. In addition to human remains, pre-contact deposits, historic and modern rubbish concentrations, and pond sediments were also encountered.

An April 2000 report documented a previously identified *‘auwai* (‘Auwai O Pau, SIHP 50-80-14-4970) and a pre-contact and newly identified historic wetland surface (SIHP 50-80-14-5796) modified with four documented constructed berms, sometimes retained with milled lumber and some historic artifacts dating between 1800 and 1920 associated with the wetland sediment. The investigation documented major disturbances to archaeological deposits and natural strata, and though sediment samples were taken, the thin sediments and disturbance prevented the sediment samples from providing useful palynological analysis. This investigation took place immeditately across Kalākaua Avenue from the current project area.

From November, 1999 to May, 2000, 44 human burials, with associated cultural deposits, were encountered during excavation for a waterline project on Kalākaua Avenue between the Ka‘iulani and ‘Ōhua Avenues (Winieski et al. 2002a). Except for previously disturbed partial burials in fill, the bulk of the burials were encountered within a coralline sand matrix. Additionally, a major cultural layer was found and documented.

From January 2000, to October 2000, 10 human burials were encountered during archaeological monitoring of the Kūhiō Beach Extension/Kalākaua Promenade project (Winieski et al. 2002b). Six of these were located within a coralline sand matrix. The four others were partial and previously disturbed within fill. Additionally, a major cultural layer was found and documented, apparently part of the same major cultural layer associated with the waterline project between Ka‘iulani and ‘Ōhua Avenues.

In April 2001 human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001). Archaeological Consultants of the Pacific, Inc. was responsible for the documentation of the

remainder of the burial and carrying out the instruction of DLNR/ SHPD. The burial and place it was encountered was assigned State Site # 50-80-14-5937. The burial was encountered on the north side of the hotel in the spa garden. The burial was partially disturbed through the thoracic region and anatomical left side. The disturbed remains were wrapped in muslin cloth and placed with the in-situ remains and reburied. The burial was recorded as a post-contact burial based on artifacts associated with it. The associated artifacts included one shell button found *in-situ* and three more shell buttons found in the disturbed material. A single drilled dog tooth was found also during excavation but could not be positively associated with the site.

On May 2nd and June 14th, 2001, two in situ and two previously disturbed human burials were encountered at the site of a new Burger King (Cleghorn 2001a) and an adjoining ABC Store (Cleghorn 2001b). The finds were located at the intersection of ‘Ōhua Street and Kalākaua Avenue (Cleghorn 2001a and 2001b). Because of their proximity to five burials encountered during the Kalākaua 16" Water Main Installation (Winieski et al. 2002a), they were included in the previously assigned State Site 50-80-14-5861. Three of these burials were recovered, and one was left in place. Volcanic glass fragments were found in association with one of the burials. A cultural layer was also observed which contained moderate to heavy concentrations of charcoal and fragments of volcanic glass. Historic-era artifacts, including a bottle fragment, plastic and glass buttons, a ceramic fragment, and metal fragments were also encountered within fill materials.

In 2001 and 2002, CSH (Mann and Hammatt 2002) performed archaeological monitoring for the installation of 8- and 12-inch water mains on Uluniu Avenue and Lili‘uokalani Avenue. During the course of monitoring, five burials finds, consisting of six individuals, were recorded within the project area. Four burial finds were recorded on Uluniu Avenue; three of these inadvertent finds were encountered in fill sediment. Due to the nature of the three burial finds in fill, it was concluded that no State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned State Site #50-80-14-6369. The fifth burial, consisting of two individuals in fill material, was recorded from Lili‘uokalani Avenue. Since three burials had been found in the immediate vicinity during a previous project (Winieski et al. 2002b) and had been assigned to Site #50-80-14-5859, the two new individuals were recorded as Feature H of this previously recorded site.

In 2004, Cultural Surveys Hawai‘i conducted an archaeological inventory survey and cultural impact evaluation for the Ala Wai Gateway project site (Freeman et al. 2005). The project site comprised TMK 2-6-011:001, 002, 004, 32, 37, and 40, which are bounded by Ala Wai and Ala Moana boulevards, Hobron Lane, and Līpe‘epe‘e Street. Four historic properties were documented in the survey:

> Site 50-80-14-6700: disturbed, ethnicity undetermined, human skeletal remains;
>
> Site 50-80-14-6701: historic coffin burial, with two individuals, ethnicity undetermined;
>
> Site 50-80-14-6702: culturally enriched buried A horizon in geographic association with Land Commission Award (LCA) 99 FL to Uma; and,

Site 50-80-14-6703: fishpond remnant.

In 2005 Cultural Surveys Hawai‘i conducted an archaeological inventory survey of a 72,135 square foot (1.67 acre) project area on Kaio‘o Drive (TMK: [1] 2-6-012: 37, 38, 39, 40, 41, 42, 43, 44, 55, 56, 57) (O’Hare et al. 2005). Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.

In summary, past archaeological research, from the beginning of the twentieth century to the present, has produced evidence that traditional Hawaiian cultural deposits, historic trash deposits, and, most notably, human burials, do exist throughout the breadth of the Waikīkī area.

Section 5 Cultural Consultation Results

Based on the project’s location and historical and cultural setting, it is possible that the project would affect Native Hawaiian historic properties, though the project is unlikely to affect ongoing traditional cultural practices related to Native Hawaiian cultural traditions. Accordingly, this cultural consultation effort focused on the assessment of the proposed project’s impact to Native Hawaiian historic properties.

5.1 Results of the prior Cultural Impact Evaluation for the Project Area

A Cultural Impact Evaluation was prepared by CSH for the project area in 2005 for a different project proponent, Round One Corporation, for a project that was not pursued (Chiogioji et al. 2005). Between this Cultural Impact Evaluation and the current study, the project area has not been developed or otherwise changed and the project area for these two independent projects corresponds exactly. The prior cultural study was designed to fulfill cultural consultation requirements pursuant to Hawai‘i Revised Statutes (HRS) Chapter 343 and the Office of Environmental Quality’s Guidelines for Assessing Cultural Impacts, as well as to support the now defunct project’s review under historic preservation review under HRS Chapter 6E-42 and HAR Chapter 13-284. Because of the short amount of time lapsed between the 2005 Cultural Impact Evaluation and the current Archaeological Assessment, and the identical project area boundaries, a project specific Cultural Impact Evaluation would not produce significantly different results.

This prior cultural consultation effort sought information from individuals knowledgeable about the project area’s history and past land use. The focus of this consultation was to identify ongoing traditional cultural practices and historic properties within the project area.

In the course of this evaluation, no ongoing traditional cultural practices or concerns were identified for the study area. None of the community contacts queried for this assessment identified any on-going traditional cultural practices specifically within the project area.

Based on the Chiogioji et al. (2005) investigation, the potential to disturb Native Hawaiian burials represents the project’s only potential adverse impact upon native Hawaiian historic properties. Some community members expressed concern for burials, though others focused only on the history of the Loko Ka‘ohai. Consulted *kama‘āina* Clarence A. Medeiros , Jr. indicated that it was highly likely that burials could be found in the project area because of the customary Hawaiian practice of burying family members within their *pa hale* (yard). Heidi Guth from the Office of Hawaiian Affairs expressed a desire to have *iwi* found during the inventory survey follow standard procedure with the O‘ahu Island Burial Council and recommended monitoring during construction. Van Horn Diamond, O‘ahu Island Burial Council Chair, noted that the Afong Family used to live in the area and were of Hawaiian descent. Consulted *kama‘āina* Mrs. Paulette Kaleikini indicated that her great-grandfather, Ialua, raised *moi*, a fish that was preferred by the chiefs, in a pond seen on a map provided for the cultural consultation (either Loko Ka‘ohai and Loko Kapu‘uiki).

5.2 Archaeological Assessment Cultural Consultation

The 2005 Cultural Impact Evaluation (Chiogioji et al.) concluded that there are “no on-going traditional cultural practices in the vicinity of the current project area … Based on the above findings, no further formal cultural impact mitigation measures are warranted.” As there were no historic properties identified, including burials, in the current Archaeological Assessment, no further cultural consultation is warranted at this time.

Section 6 Background Summary and Predictive Model

The current project area is located on the leeward side of the Ko‘olau Range along the Waikīkī coast, *ma kai* of the mouth of Mānoa Valley. It is situated in the traditional *ahupua‘a* of Waikīkī in the *moku* of Kona. Historic maps and literature as well as previous archaeology provide a clear model of the project area and its prehistoric and historic use. A large portion of the parcel consisted of fishponds during the prehistoric and early historic period.

The project area as a whole contains two ponds, Loko Ka‘ohai and Loko Kapu‘uiki, divided by a dryland sand berm. This sand berm is shown on historic maps to correspond to the existing, partially subterranean parking structure in parcel 048 that will be utilized by the project without major modification. Loko Kapu‘uiki is limited to a very small corner of the northwest project area. Loko Ka‘ohai covers most of the area of parcels 026 and 027 and historic maps show a small high ground berm or causeway dividing parts of this pond along the northern edge of the project area. In the area there is a precedent for documenting these types of mounded berms in association with fire pits, midden, wooden planks, coral boulder alignments and other pre-Contact and historic artifacts, based on the results of prevous archaeological investigations in near by Fort DeRussy and other areas of Waikīkī (refer to Davis 1989, Simons et al. 1995, Denham and Pantaleo 1997, LeSuer et al. 2000).

Based on archaeological research at similar former pond locations at nearby Fort DeRussy, the area around the pond may have, at most, been used for temporary habitation associated with fishpond construction and maintenance. Habitation is less likely to have occurred in the area during prehistoric times, as it is thought that these ponds were closely controlled by the *ali‘i*. Cultural deposits in the area suggest that under traditional Hawaiian forms of land management, people did not live on the sand berm between nearby Loko Paweo I and II in present day Fort DeRussy. Rather, human presence was probably intermittent and related to the harvesting and maintenance of the ponds (Denham and Pantaleo 1997). Habitation deposits encountered by Davis in the land area that separated Loko Paweo I and II included a variety of mollusk species, crab, *kukui* nuts, and fire-cracked basalt. Radiocarbon dates from unidentified charcoal produced dates in the seventeenth century (Davis 1989).

Around the turn of the 20th century, the fishponds and wetlands were filled due to health concerns, as well as political and economic motivations. In 1896 Act 61 of the Session Laws required landowners to fill wetlands in the interest of public health. By 1910 much of the Kālia land had been bought by the U.S. War Department for the development of Fort DeRussy and the wetlands were filled with dredged coral. This area included Loko Kapu‘uiki.

By the early twentieth century the current project area and surrounding properties were sold to developers who constructed a series of small cottages on the filled land. The two ponds known as Loko Ka‘ohai were filled to create the Beach Walk tract in 1911. Realtor Percy Pond undertook to transform Loko Ka‘ohai by filling it with sediment from his Diamond Head property (refer to section 3.1.5). A 1927 fire insurance map shows ten buildings in the current project area, including cottages and The Louidor boarding house. The Waikiki Reclamation Project (1921-1928) led to the dredging of the Ala Wai Canal and the subsequent filling of Waikīkī’s other wetlands (refer to Figure 9). The historic filling has protected fishponds, historic rice paddies and other archaeological deposits from the natural processes of deposition and erosion.

In subsequent decades, the project area was among an enclave of individual residences – typically cottages – and apartment complexes. In the 1950s construction began on the first large hotel structures that today surround the project area. The project area was not developed with high-rise buildings as was much of the surrounding land, but larger modern concrete structures were built for restaurants and other public venues. Construction of these buildings would have had a greater chance of impacting both historic and pre-Contact archaeological deposits.

Using information from the previous archaeology of the Kālia area, as well as cultural and historic records, a predictive model for the project area’s stratigraphy can be formed and is as follows:

- A layer of historic fill composed of coral, sand and topsoil,
- A layer of fine to medium sand washed down from upland fills,
- A layer of microlaminated fine sands, silts and clays from fishponds that were waterlain,
- A layer of basal sand deposits of the former sand berms and bunds,
- A layer of basal sandy silt and silty clay loams from offshore lagoonal deposition,
- A layer of buried coral reef.

Based on the data, cultural layers containing prehistoric and historic artifacts and midden may be present beneath the land surface of the current project area. Though habitation deposits in the area are largely ephemeral and most of the project area was formerly a pond, previous and ongoing archaeological research has documented the presence of traditional and historic human burials in the vicinity of the project area and areas of high ground may contain such remains. Further, archaeological deposits relating to the maintenance or modification of ponds, including a constructed berm or causeway across Loko Ka‘ohai may be encountered.

Section 7 Results of Fieldwork

7.1 Results of Pedestrian Inspection

As part of the current archaeological assessment investigation, a one-hundred percent pedestrian inspection was made of the project area’s surface. The only standing structures in the project area are a modern two-level parking garage and a small wooden parking attendee booth in Parcel 048. All structures in the parcels 026 and 027 were previously demolished and this land is now a crushed gravel parking lot. No surface historic properties were identified. Consequently, the archaeological assessment focused on a program of subsurface testing.

The pedestrian inspection confirmed that the ground beneath the modern standing parking structure on Parcel 048 could not be tested as part of the current investigation. In order to gain access to excavate beneath the garage, the structure, which is planned for use with minor modification, would have to be all but demolished. Further, because the garage is partially subterranean (see Figure 13) and this portion of the project area is documented as higher ground in historic maps (refer to Figure 5) there is a very good chance that any subsurface deposits were heavily disturbed and/or completely removed during its construction.

Figure 13. Parcel 048, looking southwest at the existing parking structure.

Excavation for the partially subterranean first floor of the parking garage would have required excavation and removal of all sediment to a depth of 1.5 to 2.0 meters below the current land surface. This excavation likely extended into the water table. Since the structure is planned for use with only minor modifications, if any deposits remain under the structure they are not likely to be further disturbed under the current project plans.

7.2 Discussion of Subsurface Testing Sample Size

Over the last 30 years of archaeological inventory survey investigations in the Waikīkī/Kaka‘ako area, a general standard for the appropriate number of trenches, per acre of project area, has developed for subsurface testing programs. This general standard is 4 to 10 trenches per acre, with the number of trenches increasing or decreasing depending on observed stratigraphy and subsurface deposits. Generally, buried jaucas sand deposits, or the perceived potential presence of buried cultural deposits, indicate the need for more trenches per acre within a given project area. Evidence of substantial fill episodes and/or the cutting away of the former land surface that predates fill deposits, may indicate that fewer inventory survey trenches are needed for a given project area. The appropriate number of trenches per project area is necessarily dependent on the types of subsurface deposits that are found within each individual project area.

Table 2 summarizes the number of trenches per acre and the overall testing sample size for the seven archaeological inventory surveys most recently completed in the current project area’s vicinity. Table 2 includes the same testing sample size summary information for the current 280 Beach Walk retail development archaeological assessment. Excluding the current investigation, the range of trenches per acre for these investigations is 1.03 to 11.9. With the exception of the current investigation, subsurface testing sample sizes range from 0.13 to 1.5 percent of the total project area’s land surface. With the exception of the current investigation, all of these inventory survey investigations have been reviewed and approved by SHPD.

For the current archaeological assessment, 11 trenches were excavated, providing even coverage of parcels 026 and 027 that will undergo ground disturbance. The number of trenches per acre in these parcels was 22.39 and 2.44 percent of these parcels were sampled. The existing parking structure was not sampled because it is partially subterranean and the sediments beneath its footprint have likely been completely removed to the water table - or at least heavily disturbed. Additionally, no testing could be carried out in the garage without virtual demolition of the structure itself. The access easement was not sampled because it is only slated for minor surface repairs. However, if the sample size is calculated on the total project area acreage (including these two areas) then 1.71 percent of the project area was sampled with a density of 15.7 trenches per acre.

Based on a comparison with prior inventory survey investigations in Table 2, the current investigation has a very thorough subsurface investigation. Both parcels scheduled for construction and the project area as a whole have undergone one of the most intensive subsurface inventory surveys in Waikīkī.

Table 2. Summary of Subsurface Testing Sample Sizes from Recent Archaeological Inventory Survey Investigations in the Vicinity of the Current Project Area

Reference	Inventory Survey Project	Location	Project Area Acreage	# of Trenches Per Acre	Area Tested (m^2 and acreage)	Inventory Survey Testing Sample Size
O’Hare et al. 2005	Kaio‘o Drive Condominium	Block bounded by Kaio‘o Drive on the north, east, and west sides and Hobron Lane on the west side.	1.67	11.9	100.40 m^2 0.025 acres	1.50 percent
Freeman et al. 2005	Ala Wai Gateway Project	Bounded by Ala Wai and Ala Moana boulevards, Hobron Lane, and Līpe‘epe‘e Street	4	5.5	156.45 m^2 0.039 acres	0.97 percent
Borthwick et al. 2002	A property of Kuhio Ave. *makai* of the “Twin Towers”	Bounded by Olohana Street, Kuhio Avenue, Kalaimoku Street, and Ala Wai Boulevard.	1.63	6.1	42 m^2 0.010 acres	0.61 percent
Corbin 2001	Hilton Waikikian	Expansion of Hilton Hawaiian Village west to Ala Moana Boulevard	1.90	11.05	30.72 m^2 0.008 acres	0.42 percent
LeSuer 2000	King Kalākaua Plaza Phase II	Bounded by Kalaimoku, Kalākaua, Kuhio and Lewers	2.52	5.2	66.61 m^2 0.016 acres	0.63 percent
Cleghorn 1996	King Kalākaua Plaza	Bounded by Kalaimoku, Kalākaua, Kuhio and Lewers	1.05	6.67	29.2 m^2 0.007 acres	0.67 percent
Hammatt and Shideler 1995	Hawai‘i Convention Center	Southwest of the intersection of Kapi‘olani and Kalākaua	9.67	1.03	54.48 m^2 0.013 acres	0.13 percent
Current Investigation (Only parcel 26, 27)	**280 Beach Walk Retail Development**	**North end of the block bounded by Kalia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west.**	**0.7** (0.49)	**15.7** (22.39)	**49.38 m^2** **0.012 acres**	**1.71 percent** (2.44 percent)

7.3 Stratigraphic Summary

Test excavations in the project area were randomly spaced and designed to give testing coverage to the entire project area. A number of trenches were placed in specific locations to test areas deemed more likely to reveal high ground related to a possible constructed causeway. This higher ground also had a somewhat higher chance of containing burials. In total, the subsurface testing comprised 11 trenches. These trenches documented a project area that comprised largely intact natural pond sediments buried beneath historic/modern fill layers. It also documented an area of higher ground where historic maps indicated a berm or causeway and three unassociated artifacts. Figure 14 shows the locations of trenches and artifacts. The artifacts are discussed in the section below titled, Subsurface Findings. Detailed stratigraphic descriptions, plan views, profiles, and summaries of the 11 test trenches are presented in Appendix A.

Most of the sediments in the project area were either disturbed by a number of episodes of late historic and modern construction, including large concrete footings and utility jackets. Even when such disturbances did not impact natural sediments, they did significantly affect the documentation of some parts of the project area. On the southern boundary of the project area, Trench 7 was aborted because of the presence of a concrete slab and repeated probing revealed another large slab adjacent to Trench 11.

Consistent with background research, an area of high ground was discovered near the north boundary of the project area. Historic maps suggested it might be a sand berm or even a constructed causeway. No evidence of construction was found in this high ground. There were no stone or coral foundations and no posts or wooden planks discovered. No artifacts of any kind were found in relation to this high ground. This is in contrast to previous archaeology in the immediate area such as Davis (1989), Simons et al. (1995), Denham and Pantaleo (1997), LeSuer et al. (2000). These investigations documented clear evidence of land use in association with nearly all berms by association with fire pits, midden, wooden planks, coral boulder alignments and other pre-Contact and historic artifacts.

The high ground documented in this investigation was limited to Trenches 1 and 2. These trenches contained thin layers of Jaucas beach sand that have been disturbed significantly by historic or modern excavation and filling. Trench 2 (Figure 15) has a natural jaucas sand layer with subtle undecomposed organic horizon (Stratum IIIc). Overlying Stratum IIIc are two more jaucas sand layers that are mottled (IIIa and IIIb) suggesting disturbance, but no evidence of intentional relocation such as charcoal or other artifacts was found. Overlying all of the jaucas sand layers is a layer of gray sandy clay (IIa) that is a mix of pond sediment and jaucas sand. Initially having a berm-like appearance, this layer was is most likely further evidence of disturbance. No datable artifacts or charcoal, stone or coral alignments, historic reinforcement of a berm, food remains or other artifacts were found in association with this stratum. Further, Stratum Ie in Trench 2, a terrigenous fill layer, partially underlies Stratum IIa, suggesting IIa is either a fill layer or was relocated by fill events. As a result of their subtlety, disturbance and the lack of intentional construction evidenced in these sediments, this high ground was not deemed eligible to the Hawai‘i State Register of Historic Places per HAR 13-284-6.

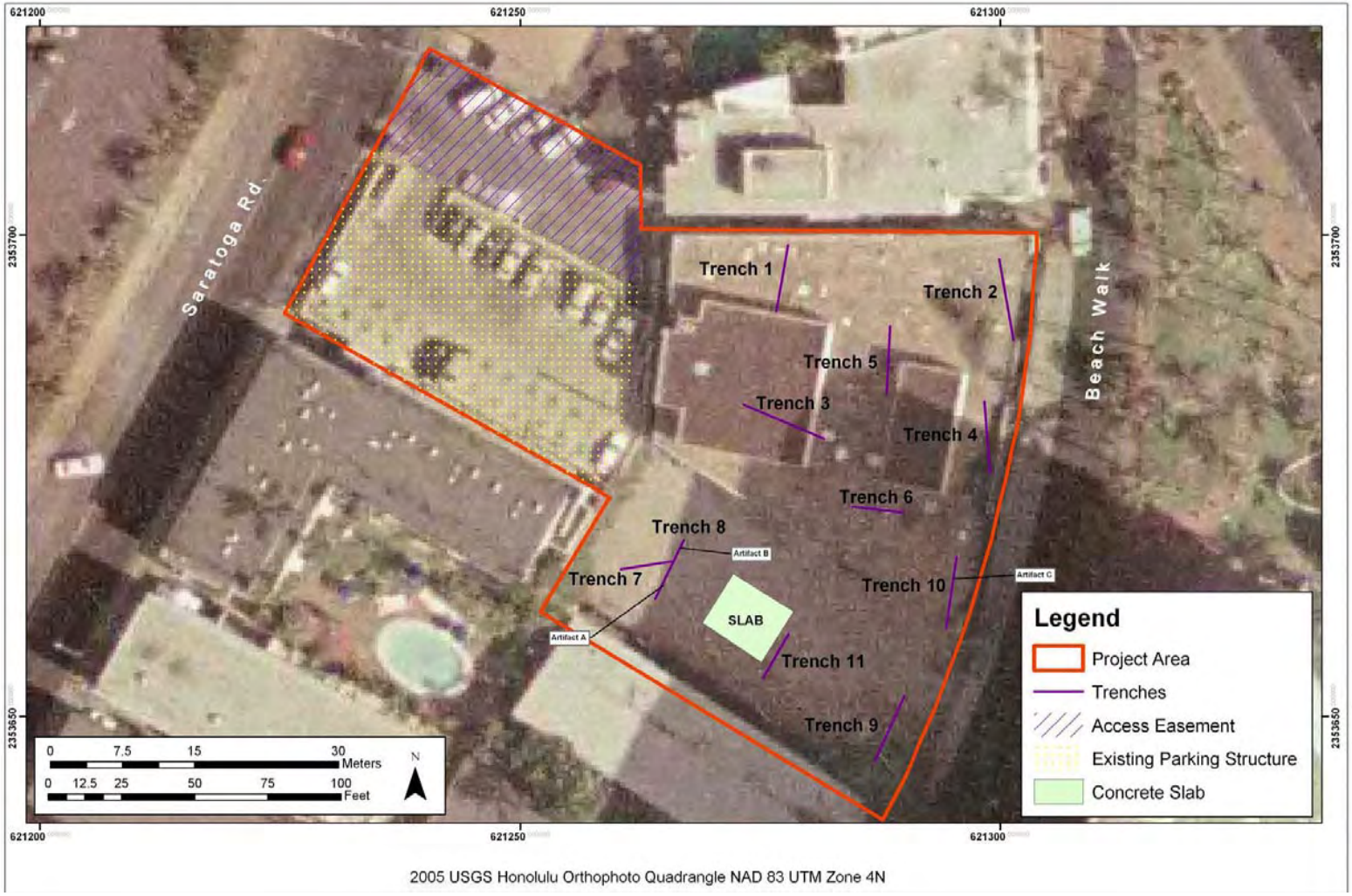


Figure 14. Locations of trenches within the project area. The existing parking structure and the access easement were not tested.

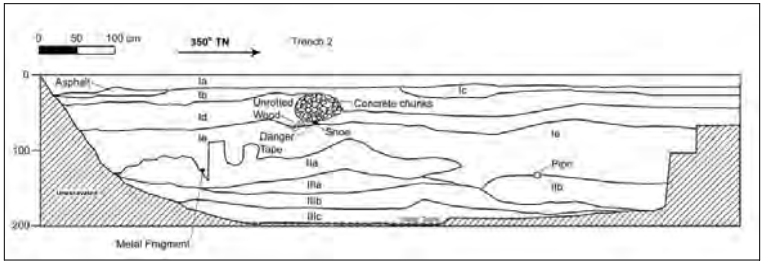


Figure 15. Trench 2 west wall profile.

Pond sediments dominated the remaining trenches in the project area (Figure 16). They were typified by a layer of a gray or grayish brown sandy clay loam (III, Figure 16) overlying a brown or grayish brown sandy clay loam (IV). In approximately one-third of the trenches this sediment was only a single layer of grayish brown sandy clay loam with a upper boundary mottled gray in color.

The upper boundary of the pond sediment was usually between 130 and 160 cmbs. The water table typically coincided with or lay below these pond sediments and ranged between 160 and 200 cmbs. This suggests that these ponds were probably quite shallow. Only a few trenches contained dense plant remains, usually in the form of peaty inclusions concentrated towards the top of the natural strata. A number of trenches also documented roots and rootlets not exceeding 0.5 cm in diameter. Freshwater snails were also found in pond sediments near the north side of the project area, near the higher ground. The observed pond sediments did not display micro-lamination or bedding of sediments, suggesting that sedimentary deposition into the pond was relatively slow and regular.

The pond sediments were approximately 30 cm thick on average. Below this pond sediment was a coarse marine deposited blue gray sand (V) that was on average 25 cm thick and sat directly on the coral shelf. This blue gray sand was probably deposited in a near shore environment in an area that became a naturally low-lying area or wetland, a majority of which was later modified by traditional native Hawaiians.

One artifact was found within the pond sediments. Artifact A, a basalt flake found 30 centimeters below the upper boundary of the pond sediment in Trench 8. It is discussed in the following Section 7.4, Subsurface Findings.

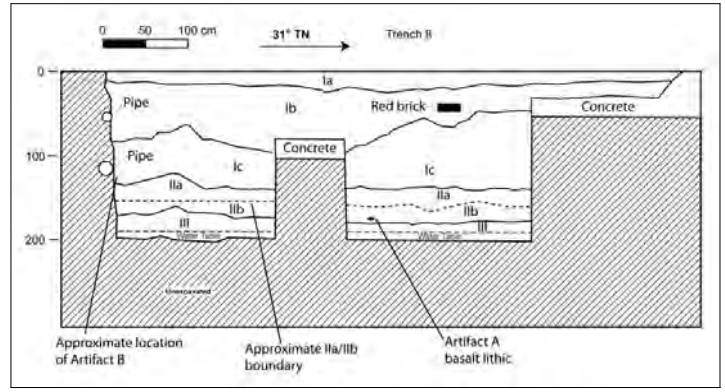


Figure 16. Representative profile of trenches containing pond sediments.

The pond sediments were entirely capped by terrigenous fills. This is consistent with background research suggesting that the Beach Walk area was initially filled by Percy Pond in 1911 with sediments from a property he owned near Diamond Head and subsequently with historic and modern fills. As is common, these more recent fill layers were frequently found to contain small deposits of modern trash. The fill was found to contain two artifacts: Artifact B, a green glass bottle dating between 1870 and 1900; and Artifact C, a diffuse trash deposit. Descriptions of these findings follow in Section 7.4, Subsurface Findings.

7.4 Subsurface Findings

No historic properties were identified within the project area. A very limited number of isolated artifacts were discovered and are described below. These artifacts do not meet any of the criteria for eligibility to the Hawai‘i State Register of Historic Places as defined by HAR 13-284-6. They are reported on here to document the limited distribution of artifacts in the project area.

Artifact A – Basalt Lithic

Feature A is an isolated, unmodified basalt flake found approximately 30 centimeters below the surface of pond sediments in Trench 8, embedded in undisturbed pond sediment (refer to Appendix A-21). The flake was produced from a large core of medium grained basalt (Figure 17and Figure 18). It has not been retouched, but does have one edge with an unnatural, minute, random serration that is indicative of use-wear. It is a general purpose tool that was not meticulously manufactured. It is most likely related to agriculture or aquaculture in the area and was lost or abandoned in Loko Ka‘ohai. No other artifacts were found near this flake, and no other artifacts of its age were found in Trench 8.

This lithic does not add to the already established record of regular agricultural and aquacultural use of the area; it is a general purpose tool in an area where various types of subsistence would have been underway throughout much of pre-Contact times. Thus, it does not provide significant information about the archaeological record in the project area. As a result, it was not deemed eligible to the Hawai‘i Register under any criteria per HAR 13-284-6.

Figure 17. Artifact A, unmodified lithic flake, side A

Figure 18. Feature A, unmodified lithic flake, side B

Artifact B – Green Glass Bottle

Artifact B consists of a single green glass bottle found in Trench 8. The provenience for this bottle is not well established as it was encountered during backhoe excavation, but it clearly originated in fill, but near the bottom of the fill layer near pond sediments.

The bottle is completely unmarked and has a round bottom with no pontil mark. The finish is either a very skillfully applied finish or a tool finish. No seams are visible on the bottle and faint concentric circles suggest that this bottle either turn molded or dip molded. The extent of the concentric rings on the bottle indicates that the later technology, turn molding, is more likely. The glass generally contains many air pockets approximately 0.5 cm in diameter. It is most likely that this bottle is either a condiment bottle (such as olive oil) or possibly a barber’s bottle as these are also known to have irregular shapes. Based on the lack of embossing, the finish and the molding process, this bottle most likely dates to between 1870 and 1900 (Bureau of Land Management 2006). This date conflicts somewhat with the known timeline for the filling of the Beach Walk area (1911), but could be accounted for by either an extended use of the bottle or reburial associated with a disturbance in the area.

Because there were no other artifacts found in association and little can be inferred about its specific use from either provenience or information derived from the bottle itself, it does not provide significant information about the archaeological record in the project area. As a result, it was not deemed eligible to the Hawai‘i Register under any criteria per HAR 13-284-6.

Figure 19. Artifact B, an isolated green glass bottle

Artifact Deposit C – Diffuse Trash in Fill Deposit

Artifact Deposit C represents diffuse trash within the historic fill deposit Stratum Ie in Trench 10. It was composed of a small amount of historic trash: rusted metal, broken glass and two intact bottles. The trash was not directly deposited in the feature over time, but rather mixed with a terrigenous sandy clay loam and then buried as part of the fill deposition process. Based on seams and corked tops, the two bottles approximately date the deposit to between 1905 and 1930 (Bureau of Land Management 2006).

Bottle A (Figure 20) is a machine made shoe polish bottle. It still has a partial cork stopper in tact in the mouth. It features raised embossing that reads: “WHITTEMORE POLISH.” A black dried polish substance is still present in the bottle.

Figure 20. Artifact Deposit C, Bottle A

Bottle B (Figure 21) is a machine made alcohol bottle with no embossing or other makings that is made of brown glass. It lacks screw threads for sealing the bottle.

These bottles are residential in nature but their provenience and accompanying artifacts do not provide substantial information about the area. As a result of the lack of information gathered from these bottles and other refuse in this deposit, it was not deemed eligible to the Hawai‘i Register under any criteria per HAR 13-284-6.

Figure 21. Feature C, Bottle B

Section 8 Summary and Interpretation

Cultural Surveys Hawai‘i, Inc., undertook this archaeological assessment at the request of First Round Pacific, LLC. The survey inspected the whole of the approximately 0.7-acre project area, located in the north end of the block bounded by Kalia Road to the south, Kalākaua Avenue to the north, Beach Walk to the east and Saratoga Road to the west. The project is located in Waikīkī Ahupua‘a, Kona District, O‘ahu Island, within TMK [1] 2-6-003: 026, 027, 048, 049, and 058.

As there were no surface historic properties in the project area, the inventory survey focused on a subsurface testing program. The results of the subsurface testing program were largely as anticipated based on background research. Eleven trenches were documented within the portion of the project area that is not currently developed and will be undergoing development. This equals a 2.44 percent subsurface testing sample of the project area’s surface, or 22.39 trenches per acre of the area subjected to testing. Based on a comparison with prior inventory survey investigations in the vicinity, the current project area has had one of the most, if not the most, thorough archaeological inventory survey subsurface testing programs yet completed in Waikīkī.

The project area’s natural sediments are often capped by irregular historic and modern fill layers. These recent stratigraphic layers do not provide a significant amount of archaeological information. In terms of the cultural stratigraphy, it is most useful to discuss the types of natural land surfaces that would have existed before any historic or modern fill events took place. In this case, virtually the entire project area was formerly a relatively low lying pond.

The natural “pre-fill” sediments in the project area reflect the Holocene evolution of the Waikīkī landform. The jaucas sand deposits are the remnants of a prograding beach berm that likely developed following the mid-Holocene c. 1.5 m high-stand of the sea. The ponds in the project area were naturally low lying wetlands of a type commonly modified by traditional Native Hawaiians. Underlying the jaucas sand and the low-lying areas are the remains of a former coral reef in the form of a hard impenetrable shelf.

Historic maps indicate that along the northern edge of the project area was a high sand berm or causeway. Test excavations along this boundary indicate that there was higher ground along this edge. A thin natural berm of jaucas sand was found along this edge of the project area, but no evidence of modification of this berm was found. In Trenches 1 and 2 layers of gray sandy clay were found to overlie small areas of either organically enriched pond sediment or jaucas sand. No evidence was found to suggest these strata are anything more than evidence of machinery operating in the area during filling events or early historic fill events themselves. No evidence of construction common to the area was found - no coral or basalt alignments, charocoal, midden or historic modification of the berm in the form of historic trash or milled lumber shoring were discovered. The lack of clear evidence of modification does not necessarily contradict that this pond was used as a fishpond, as historic sources indicate, but no evidence of maintenance or intensive use was found. In this way, this investigation does not make a greater case for the addition of Loko Ka‘ohai into the Hawai‘i State Register of Historic Properties than existing accounts of the use of the pond in historic documentation.

In total three artifact deposits were found in the project area – a basalt lithic, a green glass bottle, and a diffuse trash deposit. None of these artifact deposits constitute a substantial deposit that is an excellent example of a site type, has the potential to yield information about the past, or was found to meet any other criteria for the Hawai‘i State Register of Historic Places as defined by HAR 13-284-6.

Section 9 Significance Assessments

No historic properties eligible to the Hawai‘i State Register of Historic Places were encountered during the current archaeological assessment. The criteria for significance evaluation are listed below for reference.

9.1 Significance Assessments

The archaeological assessment and documentation of the project area’s three artifact deposits has not provided sufficient information for significance evaluations. Significance is determined after evaluation of each historic property in light of the five broad criteria used by the Hawai‘i State Register of Historic Places (HAR 13-284-6). The criteria are the following:

A Historic property reflects major trends or events in the history of the state or nation.

B Historic property is associated with the lives of persons significant in our past.

C Historic property is an excellent example of a site type.

D Historic property has yielded or may be likely to yield information important in prehistory or history.

E Historic property has cultural significance to an ethnic group, including, but not limited to, religious structures and burials.

Feature A, a basalt lithic, Feature B, a green glass bottle, and Feature C, a diffuse trash deposit, were not found to meet any of the above criteria. Though their presence alone contains limited information about the past, they have not provided information useful to the interpretation of the Waikīkī area.

Section 10 Project Effect and Mitigation Recommendations

10.1 Project Effect

The proposed project will not affect identified historic properties recommended eligible to the Hawai‘i Register. Nevertheless, cultural consultation results indicate a concern for human burials in the area and previous archaeological work has documented numerous burials in the vicinity and disturbed human remains in historic fill. Because of these concerns, CSH's project specific mitigation recommendation is for archaeological monitoring as a contingency identification measure (HAR Chapter 13-279-3).

10.2 Mitigation Recommendations

This archaeological assessment represents a good faith effort to identify and document the historic properties within the project area. Based on a fairly robust subsurface testing sampling strategy, CSH is confident that no historic properties exist in the project area. Due to the inherent limitations of any sampling strategy, however, it is possible that additional historic properties, potentially including human burials, may be uncovered during the project's construction.

In order to mitigate the potential damage to unidentified historic properties that may yet exist in the project area, it is recommended that project construction proceed under an archaeological monitoring program. This monitoring program will focus on identification and proper treatment if any isolated burials or disturbed remains predicted by background research are found and will gather additional information regarding the project's non-burial archaeological deposits, should any be discovered. This archaeological monitoring program may consist of a combination of on-site and on-call monitoring of project construction.

10.3 Disposition of Materials

The complete assemblage of artifacts associated with this archaeological assessment was collected from private lands; accordingly, this material belongs to the landowner, First Round Pacific. This collection is small, comprised of the materials from the two isolated artifacts and a diffuse artifact collection not determined to be significant historic properties. The archaeological assessment collection will be temporarily housed at the CSH storage facility. CSH will make arrangements with the landowner regarding the disposition of the project's collection. Should the landowner request archiving of material, then the archive location will be determined in consultation with SHPD.

Section 11 References Cited

Acson, Veneeta
1983 *Waikiki: Nine Walks Through Time*. Island Heritage Limited, Norfolk Island, Australia.

Armstrong, R. Warwick (ed.)
1973 *Atlas of Hawai‘i*. University of Hawaii Press, Honolulu, HI.

Athens, Stephen
1990 *Letter: Inventory of Human Skeletal Remains from Hawaii at IARII*. International Archaeological Research Institute Inc., Honolulu, Hawai‘i.

Bath, Joyce, and Carol Kawachi
1989 *Ala Wai Golf Course Burial: Site 80-14-4097 ME#89-0252 Mānoa, Honolulu District, O‘ahu TMK 2-7-36:15*. Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Beardsley, Felicia, and Michael Kaschko
1997 *Archaeological Monitoring and Data Recovery Pacific Beach Hotel Office Annex, Waikiki, O‘ahu*. International Archaeological Research Institute, Inc., Honolulu, HI.

Beckwith, Martha
1940 *Hawaiian Mythology*. Yale University Press, New Haven, CT.

Bernice Pauahi Bishop Museum
1984 *Burial Remains Waikiki Ahupua'a Maunalua to Waikiki (incl. Manoa) at Bishop Museum Kona*. Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

1981 *Interim Progress Report on Archaeological Testing, Excavations, and Monitoring at the Halekulani Hotel*. Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

Bliss, W. R.
1873 *Paradise in the Pacific: a Book of Travel, Adventure, and Facts in the Sandwich Islands*. New York.

Borthwick, Douglas, Anthony Bush, Rodney Chiogioji, Hallett Hammatt
2002 *Archaeological Inventory Survey of an Approximately 71,000-sq.ft. Parcel in Waikiki, Waikiki Ahupua`a, Kona District, Island of O`ahu*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Brown, DeSoto
1989 *Hawaii Goes to War: Life in Hawaii from Pearl Harbor to Peace*. Honolulu: Editions Limited.

Bureau of Land Management
2006 Historic Glass Bottle Identification & Information Website. Available at: http://www.blm.gov/historic_bottles/index.htm

Bush, Anthony, and Hallett H. Hammatt
2002 *Archaeological Monitoring Report for the Waikīkī Anticrime Lighting Improvement Project Phase II (TMK 2-6-1, 2-6-2, 2-6-3, 2-6-5, 2-6-6, 2-6-25, 2-*

6-16, 2-6-18, 2-6-19, 2-6-22, 2-6-23, 2-6-26, 2-6-27). Cultural Surveys Hawaii, Inc.: Kailua, HI.

Bush, Anthony, John P. Winieski, Hallett H. Hammatt
2003 *Archaeological Monitoring Report for Excavations for the New International Market Place Sign Project, Waikiki, O`ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Calis, Irene
2002 *An Archaeological Monitoring Report for ABC Store No. 35 Lemon Road Fence Wall Construction Project Waikiki Ahupua`a, Honolulu District, O`ahu Island, Hawai`i.* Scientific Consultant Services, Honolulu, Hawai‘i.

Carlson, Ingrid, Sara Collins, and Paul Cleghorn
1994 *Report of Human Remains found during the Realignment of Kālia Road, Fort DeRussy, Waikīkī, O‘ahu.* BioSystems Analysis, Kailua, HI.

Center for Oral History, Social Science Research Institute
1985 *Waikiki, 1900-1985: Oral Histories Volumes I-IV.* University of Hawai‘i-Manoa, Honolulu, Hawai‘i.

Chamberlain, Levi
1957 Tour Around O‘ahu: 1828, in *Sixty-fifth Annual Report of the Hawaiian Historical Society for the Year 1956*, pp. 2541. Hawaiian Historical Society, Honolulu, HI.

Chiogioji, Rodney, Sallee D.M. Freeman and Hallett H. Hammatt
2005 *Cultural Impact Evaluation for the Proposed Waikīkī Beachwalk Amusement Center Waikīkī Ahupua‘a, Kona District, O‘ahu Island.* TMK: 2-6-03: 26, 27, 48, 49, and 58. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Cleghorn, June
1993 *Inadvertent Discovery of Human Remains at the Waikiki Aquarium Renovation Project, Waikiki, Kona, O‘ahu, TMK: 3-1-31: 006.* State Historic Preservation Division, Honolulu, Hawai‘i.

Cleghorn, Paul
1996 *The Results of an Archaeological Inventory Survey at the Proposed Kalākaua Plaza, Waikīkī, O‘ahu, Hawai‘i (TMK 2-6-16:23, 25-26, 28, 61, and 69).* Pacific Legacy, Inc., Kailua, HI

2001a *Archaeological Mitigation of Waikiki Burger King Construction, TMK: 2-6-026:013 Kona District, Waikiki Ahupua‘a, Island of O‘ahu.* Letter to Mr. Roy Yamani (Hawaii CIMMS). Pacific Legacy, Honolulu, Hawai‘i.

2001b *Archaeological Mitigation near Waikiki Burger King Construction Site TMK: 2-6-026:012 & 013, Kona District, Waikiki Ahupua‘a, Island of O‘ahu.* Letter to Mr. Paul Kosasa (ABC Stores). Pacific Legacy, Honolulu, Hawai‘i.

Corbin, Alan B.
2001 *FINAL: Appendix C: Subsurface Archaeological Inventory Survey-Hilton Waikikian Property, Land of Waikiki, Honolulu (Kona) District, Island of O`ahu (TMK: 2-6-9-:2, 3, 10).* Pacific Health Research Institute, Honolulu, Hawai‘i.

Dagher, Cathleen
1993 *Inadvertent Discovery of Human Remains at the Waikiki Aquarium Renovation Project, Waikiki, Kona, O‘ahu, TMK: 3-1-31: 006.* State Historic Preservation Division, Honolulu, Hawai‘i.

Davis, Bertell
1991 *Archaeological Monitoring of Environmental Baseline Survey and Excavations in Hawaiian Land Commission Award 1515 (‘Apana 2) at Fort DeRussy, Waikīkī, O‘ahu.* State Historic Preservation Office manuscript.

1989 *Subsurface Archaeological Reconnaissance Survey and Historical Research at Fort DeRussy, Waikīkī, O‘ahu, Hawai‘i.* International Archaeological Research Institute, Inc., Honolulu, HI.

1984 *The Halekūlani Hotel Site: Archaeological and Historical Investigations in Waikīkī, O'ahu, Hawai'i.* B.P. Bishop Museum, Honolulu, HI.

Dega, Michael, and Joseph Kennedy
1993 *Archaeological Report Concerning the Inadvertent Discovery of Remains at the Waikiki Aquarium (TMK: 3-1-31:06) Waikiki Ahupua‘a Kona District, Island of Oahu.* Archaeological Consultants of Hawaii, Inc., Haleiwa, HI.

Denham, Timothy, and Jeffrey Pantaleo
1997 *Archaeological Monitoring and Investigations During Phase I: Kalia Road Realignment and Underground Utilities, Fort DeRussy, Waikiki, O`ahu.* Biosystems Analysis, Kailua, Hawai‘i.

Denham, Timothy, Jeffrey Pantaleo, Thomas L. Jackson, William Fortini, Alan Ziegler, Gail Murakami, Linda Scott-Cummings, Paul Tichenal
1997 *Archaeological Data Recovery Excavations at the Fort DeRussy Military Reservation, Waikiki, Island of O`ahu, State of Hawai`i.* GANDA Biosystems, Honolulu, Hawai‘i.

Elmore, Michelle, and Joseph Kennedy
2002 *An Archaeological Monitoring Report for the Installation of a Security Fence at Fort DeRussy, Waikiki Ahupua`a, Honolulu District, Island of O`ahu.* Archaeological Consultants of the Pacific, Haleiwa, Hawai‘i.

2001 *A Report Concerning the Inadvertant Discovery of Human Remains at the Royal Hawaiian Hotel, (TMK: (1)2-6-02:5, in Waikiki Ahupua‘a, Honolulu District, Island of O‘ahu.* Archaeological Consultants of Hawaii, Inc, Haleiwa, HI.

Emerson, N.B.
1902 A Preliminary Report on a Find of Human Bones Exhumed in the Sands of Waikīkī, in T*enth Annual Report of the Hawaiian Historical Society for the Year 1901*, pp.l8-20. Hawaiian Historical Society, Honolulu, HI.

Foote, Donald E., E.L. Hill, S. Nakamura, and F. Stephens
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*. U.S. Dept. of Agriculture, U.S. Government Printing Office, Washington, D.C.

Freeman, Sallee, Matt McDermott, Constance O'Hare, and Hallett H. Hammatt
2005 *Archaeological Inventory Survey and Cultural Impact Evaluation for the Ala Wai Gateway Project Site, Kālia, Waikīkī, O‘ahu (TMK [1] 2-6-011: 001, 002, 004, 032, 037, and 040).* Cultural Surveys Hawai‘i Inc., Kailua, HI.

Grant, Glen
1996 *Waikiki Yesteryear*. Mutual Publishing, Honolulu.

Griffin, Agnes
1987 *Kalakaua Avenue Gas Pipe Excavation Burial Recovery, Waikiki, C. Honolulu, O‘ahu (TMK: 2-6-01:12).* State Medical Officer's office memorandum to Department of Land and Natural Resources, Honolulu, HI.

Hammatt, Hallett H., Rodney Chiogioji
2000 *Archaeological Assessment of the Honolulu Zoo Parcel, Waikiki, Island of O`ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1998 *Archaeological Assessment of King Kalakaua Plaza Phase II, Waikiki, Island of O`ahu, (TMK 2-6-18:10, 36, 42, 52, 55, 62, 63, 64, 73, & 74).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1993 *An Archaeological Assessment of a 16-Acre Portion of the Ala Wai Golf Course in the Ahupua'a of Waikiki, Island of O‘ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Hammatt, Hallett H., Matt McDermott
1999 *DRAFT: Burial Disinterment Plan and Report, State Site Numbers 50-80-14-5744-1 and -2 found During Anti-Crime Street Lighting Improvements Beneath Kalakaua Avenue, Waikiki, Island of O`ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Hammatt, Hallett H., David W. Shideler
1996 *Archaeological Data Recovery at the Hawai‘i Convention Center Site, Waikiki, Kona District, O‘ahu ((TMK 2-3-35:001).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

1995 *Archaeological Sub-surface Inventory Survey at the Hawai‘i Convention Center Site, Waikiki, Kona District, O‘ahu (TMK 2-3-35:001).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Hodge, Clarence L. and Peggy Ferris
1950 *Building Honolulu: A Century of Community Service*. Honolulu: Chamber of Commerce of Honolulu.

Honolulu Star Bulletin
1928 The Whole World Knows Waikiki. 17 October:2:1-16. Honolulu.

Hurlbett, Robert, et al.
1992 *Archaeological Monitoring of Mechanical Loop Excavations Hilton Hawaiian Village, Land of Waikīkī, Honolulu (Kona) District, Island of O‘ahu.* State Historic Preservation Office, Honolulu, HI.

Hurst, Gwen
1990 *Historical Literature and Documents Search, Archaeological Testing and Subsequent Procedures for the Proposed Redevelopment of the Waikikian Hotel*. Bernice Pauahi Bishop Museum, Honolulu, Hawai‘i.

‘I,‘ī, John Papa
1959 *Fragments of Hawaiian History as Recorded by John Papa ‘I‘ī.* Bishop Museum Press, Honolulu, HI.

Johnson, Donald D.
1991 *The City and County of Honolulu: A Governmental Chronicle.* University of Hawai‘i Press, Honolulu, HI.

Jourdane, Elaine
1995 *Inadvertent discovery of Human Skeletal Remains At Waikīkī, Sunset Hotel, Waikīkī, Kona, O‘ahu.* Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Kanahele, George S.
1996 *Waikīkī 100B.C. to 1900 A.D.: An Untold Story*. Honolulu: The Queen Emma Foundation.

Kennedy, Joseph
1991 *Archaeological Monitoring Report for the proposed IMAX Theater Project*. Archaeological Consultants Hawai‘i , Haleiwa, Hawai‘i.

LeSuer, C. Celeste, Matt McDermott, Rodney Chiogioji, Hallett H. Hammatt
2000 *Draft: An Archaeological Inventory Survey of King Kalakaua Plaza Phase II, Waikiki, Waikiki Ahupua`a, Kona District, Island of O`ahu, Hawai`i.* Cultural Surveys of Hawai‘i, Kailua, Hawai‘i.

Maly, Kepa, Leta J. Franklin, Paul H. Rosendahl
1994 *Archaeological and Historical Assessment Study Convention Center Project Area, Land of Waikiki, Kona District, Island of O‘ahu.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai‘i.

Mann, Melanie, and Hallett H. Hammatt
2002 *Archaeological Monitoring Report for the Installation of 12- and 8-inch Water Mains on Lili‘uokalani Avenue and Uluniu Avenue, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-023, 24, and 26).* Cultural Surveys Hawai‘i, Inc., Kailua, HI.

McAllister, J.G.
1933 *Archaeology of O‘ahu*. B.P. Bishop Museum Bulletin, No.104.

McDermott, Matthew, Rodney Chiogioji, and Hallett Hammatt
1996 *An Archaeological Inventory Survey of Two Lots (TMK 2-6-24:65-68 and 80-83 and TMK 2-6-24:34-40 and 42-45) in Waikiki Ahupua‘a, O‘ahu, Hawai‘i.* Cultural Surveys Hawaii, Inc., Kailua, HI.

McGuire, Ka’ohulani and Hallett H. Hammatt
2001 *A Traditional and Cultural Practices Assessment for a Proposed Outrigger Hotels Hawai`i Property Redevelopment in Waikiki, Kona District, island of O`ahu.* Cultural Surveys of Hawai‘i, Kailua, Hawai‘i.

McMahon, Nancy
1994 *Inadvertent Burial Discovery on April 28, 1994, Waikīkī, Kona, O‘ahu--Intersection of Kalākaua and Kuamo‘o Streets.* State Historic Preservation Office, Kapolei, HI.

Menzies, Archibald
1920 *Hawai‘i Nei 128 Years Ago.* Honolulu.

Nakamura, Barry Seichi
1979 *The Story of Waikiki and the “Reclamation” Project*. Unpublished M.A. thesis, Department of History, University of Hawaii, Honolulu.

Neller, Earl
1984 *An Informal Narrative Report on the Recovery of Human Skeletons From a Construction Site in Waikīkī on Paoakalani Street, Honolulu, Hawai‘i.* State Historic Preservation Office, Kapolei, HI.

1981 *An Archaeological Reconnaissance of the New Construction at the Halekulani Hotel, Waikiki.* State Historic Preservation Division, Honolulu, Hawai‘i.

1980 The Kālia Burial Site #50-OA-2870: Rescue Archaeology in Waikīkī, Hawai‘i. State Historic Preservation Program, Kapolei, HI.

Newton, Ronald V.
1938 “Waikiki Seen as Area of Active New Development” in *Honolulu Star-Bulletin,* March 26, 1938, p.10.

O’Hare, Constance, David Shideler and Hallett H. Hammatt
2005 *Archaeological Inventory Survey for the 116-unit Kaio‘o Multifamily Condominium Project, Waikiki Ahupua‘a, Honolulu (Kona) District, O‘ahu Island, TMK (1) 2-6-012:037-044, 055-058*. Cultural Surveys Hawai‘i, Kailua, HI.

Perzinski, David, Matt McDermott Rodney Chiogioji, and Hallett H. Hammatt
1999 *Archaeological Monitoring Report for Anti-Crime Street Lighting Improvements Along Portions of Ala Wai Boulevard, Kalākaua Avenue, Ala Moana Boulevard and ‘Ena Road, Waikīkī, O‘ahu*. Cultural Surveys Hawai‘i, Kailua, HI.

Perzinski, Mary, Hallett H. Hammatt
2001a *Archaeological Monitoring Report for the Kapiolani Bandstand Redevelopment Project, Waikiki, Waikiki Ahupua’a, Kona District, O‘ahu (TMK 3-1-43).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

2001b *Archaeological Monitoring Report for the Re-Internment Facility for the Waikiki Iwi Kupuna, Kapiolani Park, Waikiki, Island of O‘ahu (TMK: 3-1-43:1).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

2001c *Archaeological Monitoring Report for Street Light Improvements Along a Portion of Kalakaua Avenue Between the Natatorium to Poni Mo'i Road, Waikiki, Island of O‘ahu (TMK 3-1-031, 032 & 043).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Perzinski, Mary, David W. Shideler, John Winieski, Hallett H. Hammatt
2000 *Burial Findings During the Excavation of a 16th Watermain on an Approximately 915 Meter (3,000 Ft.) Long portion of Kalakaua Avenue Between Kai’ulani and Monsarrat Avenues Associated with the Kuhio Beach Extension/Kalakaua Promenade Project, Waikiki Ahupua’a, Kona District, Island of O‘ahu, (TMK 2-6-1, 2-6-22, 2-6-23, 2-6-26, 2-6-27, and 3-1-43).* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Putzi, Jeffrey L., Paul Cleghorn
2002 *Archaeological Monitoring of Trench Excavations for Sewer Connections Associated with the Hilton Hawaiian Village Improvements.* Pacific Health Research Institute, Hilo, Hawai‘i.

Riford, Mary F.
1989 *Pre-Field Background Literature Search for Archaeological Resources at the Proposed Waikiki Landmark Property*. Bernice Pauahi Bishop Press, Honolulu, Hawai‘i.

Rosendahl, Paul
2001 *Archaeological Assessment Study Waikiki Beach Walk Project, Land of Waikiki, Honolulu (Kona) District, Island of O`ahu Technical Report for EIS.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai‘i.

1999 *Interim Report: Hale Koa Hotel Subsurface Inventory Survey-Luau Facility, Kalia, Land of Waikiki, District of Kona, Island of O`ahu.* Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai‘i.

1992 *Archaeological Monitoring of Mechanical Loop Excavations Hilton Hawaiian Village*. Pacific Health Research Institute, Hilo, Hawai‘i.

1989 *Preliminary Report Upon Completion of Field Work Hale Koa Hotel Site Subsurface Inventory Survey Kalia, Land of Waikiki, District of Kona*. Paul H. Rosendahl, Ph.D. Inc., Hilo, Hawai‘i.

Simons, Jeannette A., S. Antonio-Miller, D. Trembly, and L. Somer
1991 *Archaeological monitoring and data recovery at the Moana Hotel Historical Rehabilitation Project, O‘ahu, Waikīkī.* Applied Research Group, Bishop Museum, Honolulu, HI.

Simons, Jeannette A., Paul Cleghorn, R. Jackson, T. Jackson
1995 *DRAFT Archaeological Data Recovery Excavations at Fort DeRussy, Waikīkī, O‘ahu, Hawai‘i.* Manuscript on file at the State Historic Preservation Office, Kapolei, HI.

Sorensen, Betty Dyer
1995 *Born and Raised in Waikiki*. Santa Cruz: Limu Press.

Streck, Charles
1992 *Human Burial Discovery during Archaeological Data Recovery Excavations at Fort DeRussy, Waikiki, O‘ahu Island, Hawai‘i, 20 May 1992.* State Historic Preservation Division, Honolulu, Hawai‘i.

Tome, Guerin and Michael Dega
2003 *Archaeological Monitoring Report for Construction Work at the Waikiki Marriot, Waikiki, Manoa Ahupua`a, Honolulu District, O`ahu Island, Hawai`i.* Scientific Consultant Services, Honolulu, Hawai‘i.

Tulchin, Jon and Hallett H. Hammatt
2003 *Archaeological and Cultural Impact Assessment of a 1-Acre Parcel, 2284 Kalakaua Avenue, Waikiki, Kona District, Island of O‘ahu.* Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Vancouver, George
1798 *A Voyage of Discovery to the North Pacific Ocean, and Round the World...Performed in the years 1790-1795.* Robinsons and Edwards, London.

Wilson Okamoto & Associates, Inc.
1998 Final Environmental Assessement and Finding of No Significant Impact (FONSI) KING KALAKAUA PLAZA PHASE II. Wilson Okamoto & Associates, Inc, Honolulu HI.

Winieski, John P., and Hallett H. Hammatt
2001 *Archaeological Monitoring Report for the Public Baths Waste Water Pumping Station Force Main Replacement, Waikīkī, Honolulu, O‘ahu, Hawai‘i (TMK 2-6-25, 26, & 27, and 3-1-31, 43).* Cultural Surveys Hawai‘i, Kailua, HI.

Winieski, John, Mary Perzinski, David Shideler, and Hallett H. Hammatt
2002a *Archaeological Monitoring Report for the Installation of a 16-Inch Water Main on an Approximately 915 Meter (3,000 Ft) Long Portion of Kalākaua Avenue Between Ka‘iulani and Monsarrat Avenues Associated with the Kūhiō Beach Extension/Kalākaua Promenade Project, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-1-, 2-6-22, 2-6-23, 2-6-26, 2-6-27, 3-1-43).* Cultural Surveys Hawai‘i, Kailua, HI.

Winieski, John, Mary Perzinski, Kehaulani Souza, and Hallett H. Hammatt
2002b *Archaeological Monitoring Report, The Kuhio Beach Extension/Kalākaua Promenade Project, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu (TMK 2-6-1-, 2-6-22, 2-6-23, 2-6-26, 2-6-27, 3-1-43),* Cultural Surveys Hawai‘i, Kailua, HI.

Yost, Harold
1971 The Outrigger Canoe Club of Honolulu, Hawaii. Outrigger Canoe Club, Inc., Honolulu, HI.

Appendix A Comprehensive Trench Documentation

Trench 1

Trench 1 was 7.0 meters long, 0.8 meters wide and 1.8 meters deep. It was excavated in the northwest corner of parcel 026 area to test for the presence of a sand berm or constructed causeway.

Trench 1 contained fill over disturbed natural sediments that do suggest a land surface higher than the surrounding ponds. Geographically this corresponds to Bishop’s 1881 map showing a berm across Ka‘ohai pond. However, no evidence of a constructed berm or causeway was found in this trench. No midden, coral or stone alignments, charcoal or clear mounding was observed. Some thin layers of pond sediment were found, but were devoid of any type of artifact usually associated with intentional mounding of sediments. Only one of these pond strata, Stratum II, showed organic enrichment in a thin lens, possibly as a land surface. Due to its position in relation to Stratum III (a similar sediment not showing an organic lens), removal and/or relocation of sediments during fill events is likely. Stratum IV contained rootlets and was at some time covered by the overlying II, III, IV. There is no cultural evidence for the relocation of these sediments and they are so thin that they could have been deposited by machinery spreading terrigenous fill in the ponds, or may have been relocated as part of the filling process itself.

Further limiting interpretation this trench was clear evidence of major disturbances. A large portion of the pre-fill sediments in this trench have been cut away to the coral shelf and replaced by Strata Ie and V. At the top of Stratum Ie is a concentration of cobbles that is present in both sidewalls. Some of the cobbles are fit together quite tightly suggesting a landscaping or minor foundation probably from modern times. Because of its location atop what appears to be backfill from mechanized excavation it is almost certainly not part of a constructed causeway across the pond. No diagnostic artifacts were found in association with this cobble concentration. Because of the lack of information and its likely modern age it was not considered an archaeological feature.

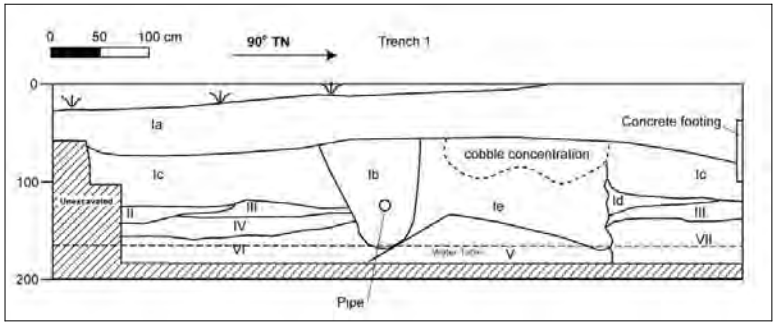


Figure 22. Trench 1 east profile.

Stratum Ia: 0 - 60 cmbs

Fill Horizon; 5 YR 4/2, dark reddish gray; sandy loam; structureless; loose dry consistency; slightly plastic; no cementation; abrupt smooth lower boundary.

Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum contains modern trash.

Stratum Ib: 60 - 170 cmbs

Fill Horizon; 10 YR 4/3, brown; sandy loam; structureless; slightly hard dry consistency; slightly plastic; no cementation; clear irregular lower boundary.

Utility trench backfill. Contains a metal pipe for which the trench was excavated, steel wire and coral gravel.

Stratum Ic: 60/70 - 120 cmbs

Fill Horizon; 10 YR 4/6, dark yellowish brown; loamy clay; structureless; loose dry consistency; non-plastic; no cementation; abrupt smooth lower boundary;.

Terrigenous Fill layer

Stratum Id: 50 - 115 cmbs

Fill Horizon; 10 YR 3/3, dark brown; loamy sand; structureless; hard dry consistency; non-plastic; no cementation; clear wavy lower boundary.

Terrestial fill.

Stratum Ie: 40 – 130/170 cmbs

Fill Horizon; 10 YR 3/2, very dark grayish brown; sandy loam; structureless; loose dry consistency; non-plastic; no cementation; abrupt irregular lower boundary.

Terrestial fil mixed with approximately 10 percent coral gravel and basalt gravel. This stratum forms a matrix between a cobble concentration near its upper boundary..

Stratum II: 120 - 140 cmbs

Fill Horizon/Redeposited Pond Sediment; 10 YR 5/1, gray; clay loam; structureless; very friable moist consistency; plastic; no cementation; clear smooth lower boundary.

This stratum appears to have been a land surface for a short period of time. The top of this stratum has a very thin (less than 1cm thick) slightly darker lens. This lens is not charcoal, but fine organic material. It is most likely that this sediment is redeposited pond sediment.

Stratum III: 70 - 145 cmbs

Fill Horizon/Redeposited Pond Sediment; 10 YR 5/2, grayish brown; sandy clay; structureless; sticky wet consistency; slightly plastic; no cementation; abrupt smooth lower boundary.

This stratum is most likely relocated pond sediment. It does not appear to have organic enrichment along its upper boundary like the overlying Stratum II, suggesting there may have been a disturbance to Stratum II or III.

Stratum IV: 140 - 155 cmbs

Fill Horizon/Redeposited Pond sediment; 10 YR 4/1 dark gray; sandy clay; structureless, very friable wet consistency; plastic; no cementation; abrupt smooth lower boundary.

This stratum is most likely relocated pond sediment.

Stratum V: 130/180 - 180 cmbs	Fill/Disturbed jaucas sand; 10 YR 7/4 very pale brown; coarse sand; structureless, loose moist consistency; non-plastic; no cementation; lower boundary is on coral shelf. This stratum appears to be local jaucas sand that has been significantly disturbed. It is approximately ten percent clay inclusions of the same color (a sediment not noted elsewhere in the project area). This jaucas sand also contains approximately five percent calcareous gravel. Stratum VII in this trench does not contain such gravel. It is believed that this sand was entirely removed to the coral shelf and replaced.
Stratum VI: 155 - 180 cmbs	Pond sediment; 10 YR 5/2 grayish brown; clay sand; structureless, slightly sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary. This sediment was at one time a land surface, though it may have been submerged. It contains rootlets approximately 2mm in diameter.
Stratum VII: 145 - 510 cmbs	Jaucas sand; 10 YR 8/4 very pale brown; very coarse sand; structureless, loose moist consistency; non-plastic; no cementation; lower boundary not visible – in bottom of trench. Marine deposited jaucas beach sand. This stratum appears to be sterile and is truncated in this trench by a major disturbance that cut away Strata Ic, Id, III and VII.

Figure 23. Trench 1 east wall photograph.

Figure 24. Cobble concentration in west wall of Trench 1.

Trench 2

Trench 2 was 9.0 meters long, 0.8 meters wide and 2.1 meters deep. It was excavated in the northeast corner of parcel 026 to test for the presence of a sand berm or constructed causeway.

Trench 2 contained fill over disturbed natural sediments. Figure 26 following the sediment descriptions is a photograph of the sidewall.

Trench 2 contained sediments indicative of a land surface higher than the surrounding pond. It also documented disturbance of natural sediments. Stratum IIIc which has a faint organic lens at its surface, appears to have been a land surface at some time. Overlying it are the mottled jaucas sands of Strata IIIb and IIIc. These jaucas sand layers are natural, but the mottling suggests they may have been relocated. Overlying the jaucas sand layers is Stratum IIa, a mix of jaucas sand and pond sediment. It is undercut by Ie, terrigenous fill, known to have been deposited in or around 1911. This is highly suggestive that Stratum Ie dates to this time, or at least was seriously disturbed at this time. The proximity of Ie to the Stratum IIIa and IIIb may also mean the upper boundaries of these layers may have been removed or otherwise adversely affected by the deposition of Ie.

This trench does document higher ground sediments geographically corresponding to a berm dividing Loko Ka‘ohai as recorded in 1881 by S.E. Bishop, but no evidence of modification was found. Because of its position and because of mixing of jaucas sand and pond sediment, Stratum IIa could initially appear to be a clay constructed berm. However, Stratum IIa does not contain any artifacts, sediment retention techniques such as coral alignments or milled lumber, charcoal or display evidence of being a former land surface – expectations set by well documented constructed berms in the immediate area of Fort DeRussy. Further, it is undercut by historic fill Ie. Likewise, Strata IIIa and IIIb do not contain any diagnostic evidence of pre-Contact or historic human intervention.

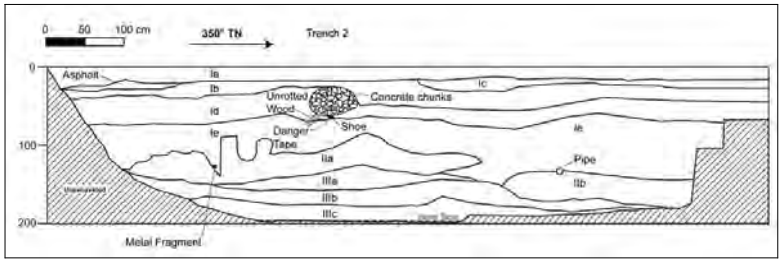


Figure 25. Trench 2 west wall profile.

Stratum Ia: 0 - 20 cmbs	Fill Horizon; 10 YR 5/2, grayish brown; gravel; structureless; loose dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Modern land surface.
Stratum Ib: 20 – 40 cmbs	Fill Horizon; 10 YR 3/2, very dark grayish brown; gravel; structureless; weakly coherent dry consistency; non-plastic; no cementation; wavy abrupt lower boundary.
Stratum Ic: 10 - 30 cmbs	Fill Horizon; 10 YR 3/3, dark brown; sandy loam; structureless; loose dry consistency; non-plastic; no cementation; clear wavy lower boundary;. Terrigenous fill.
Stratum Id: 40 - 70 cmbs	Fill Horizon; 10 YR 4/4, dark yellowish brown; sandy clay loam; structureless; friable moist consistency; non-plastic; no cementation; clear wavy lower boundary. Contains a pit containing very recent trash including a modern rubber-soled sports shoe, unrotted wood, plastic and concrete rubble.
Stratum Ie: 60/70 - 90/140 cmbs	Fill Horizon; 10 YR 4/3, brown; silt loam; structureless; weakly coherent dry consistency; non-plastic; no cementation; clear irregular lower boundary. Gravelly terrigenous fill.

Stratum IIa: 90/140 – 120/150 cmbs	Fill Horizon/Pond sediment; 10 YR 5/2, grayish brown; sandy clay; structureless; loose moist consistency; non-plastic; no cementation; abrupt wavy lower boundary. This sediment has a very high sand content compared to the otherwise similar IIb, and is a mix of jaucas sand and pond sediment. When this relocation occurred is unclear. It fits with a mounded berm shown in historic maps, but may also be a product of heavy equipment used to fill the area as it is partially undercut by a historic terrigenous fill (Ie).
Stratum IIb: 130/150 - 170 cmbs	Fill Horizon/Pond sediment; 10 YR 4/2, dark grayish brown; sandy clay loam; structureless; friable wet consistency; slightly plastic; no cementation; abrupt wavy lower boundary. This stratum is most likely pond sediment that was relocated to create a higher ground. However, it also may be caused by fill events, but was a land surface for at least a short amount of time. Contains small freshwater snail shells and has a dark upper boundary.
Stratum IIIa: 120/150 - 150 cmbs	Jaucas sand; 10 YR 7/3 very pale brown; medium sand; structureless, loose moist consistency; non-plastic; no cementation; abrupt smooth lower boundary. Jaucas beach sand with yellow mottling. Though subtle, this may be part of a constructed high ground.
Stratum IIIb: 140/150 - 175 cmbs	Jaucas sand; 10 YR 7/6 yellow; medium and coarse sand; structureless, loose wet consistency; non-plastic; no cementation; abrupt smooth lower boundary. Jaucas beach sand, more yellow than either overlying or underlying strata. Slightly mottled with lighter sand. This may be a constructed high ground.

Stratum IIIc: 175- 195 cmbs	Jaucas sand; 10 YR 8/4 very pale brown; very coarse sand; structureless, loose moist consistency; non-plastic; no cementation; lower boundary not visible – in bottom of trench. Jaucas beach sand containing some small brown organic particles at the top of the layer. This was almost certainly a former land surface.

Figure 26. Trench 2 west wall photograph. Gray sediment possibly mounded visible just in front of the photo scale is Stratum IIa.

Trench 3

Trench 3 was 7.0 meters long, 0.8 meters wide and 2.10 meters deep. It was excavated for general coverage of the project area.

Trench 3 contained fill over heavily disturbed natural sediments. More than half of the trench length was a concrete pad that appears to be a modern basement structure. This basement area contained an large amount of charred demolition debris including concrete, relatively young lumber and modern trash. Natural sediments were extremely thin and began at 170 cmbs.

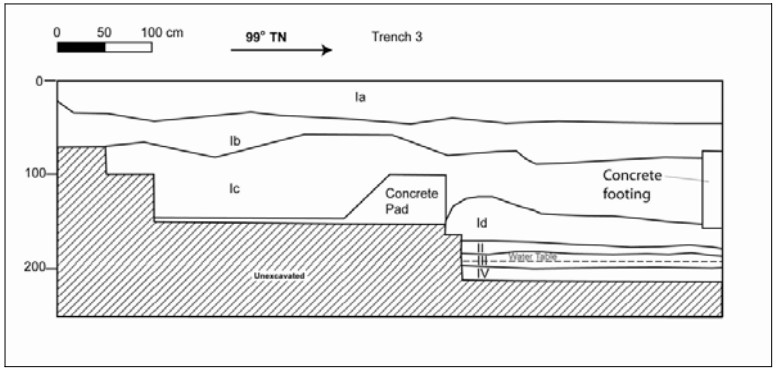


Figure 27. Trench 2 west wall profile.

Stratum Ia: 0 - 40 cmbs	Fill Horizon; 10 YR 4/2, dark grayish brown; sandy loam; structureless; loose dry consistency; non-plastic; no cementation; clear smooth lower boundary. Gravelly sandy loam terrigenous fill. Modern land surface.
Stratum Ib: 40 – 60/80 cmbs	Fill Horizon; 10 YR 4/3, yellowish brown; sandy clay; structureless; friable moist consistency; slightly plastic; no cementation; abrupt wavy lower boundary. Terrigenous fill.

Stratum Ic: 60/80 – 100/150 cmbs	Fill Horizon; 10 YR 2/2, very dark brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; abrupt irregular lower boundary. Terrigenous fill. Directly overlying the concete foundation the stratum is only a matrix for modern trash such as burned wood, concrete blocks and rebar.
Stratum Id: 125/140 - 170 cmbs	Fill Horizon; 10 YR 4/6, dark yellowish brown; clay loam; structureless; loose dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Terrigenous fill layer.
Stratum II: 170 - 180 cmbs	Fill Horizon; Gley 1 4/2, greenish gray; clay loam; structureless; firm moist consistency; slightly plastic; no cementation; abrupt smooth lower boundary.. Very bright greenish in color in some areas of the stratum. Land snail shells present in this stratum. This is the top stratum of a shallow bond.
Stratum III: 180 - 200 cmbs	Pond sediment; 10 YR 3/2, dark yellowish brown; clay loam; structureless; slightly hard dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Natural pond sediment. Mottled with sediment of the same description but of color 10 YR 5/2. This stratum has a relatively high organic content – it contains small roots, a few land snail shells and some small localized peaty plant remains.
Stratum IV: 200 - 210 cmbs	Marine sand; 10 YR 5/1, gray; coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary. Marine-deposited sand occupying a low area that became a natural pond. Sand was not observed to contain organic material.

Figure 28. Trench 3 north wall. Photo scale is sitting on the concrete slab forming a building foundation; water table can be seen in the background where natural sediments were exposed.

Trench 4

Trench 4 was 5.0 meters long, 0.8 meters wide and 2.10 meters deep. It was excavated for general coverage of the project area.

Trench 4 contained fill over natural pond sediments.

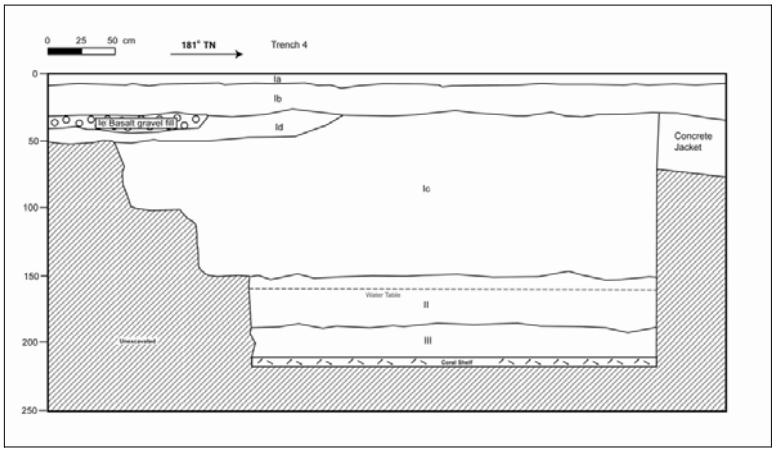


Figure 29. Trench 4 west wall profile.

Stratum Ia: 0 - 10 cmbs	Fill Horizon; 10 YR 5/2, grayish brown; gravel; structureless; loose dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Modern land surface.
Stratum Ib: 10 - 30 cmbs	Fill Horizon; 10 YR 2/2, very dark brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; abrupt irregular lower boundary. Terrigenous fill.

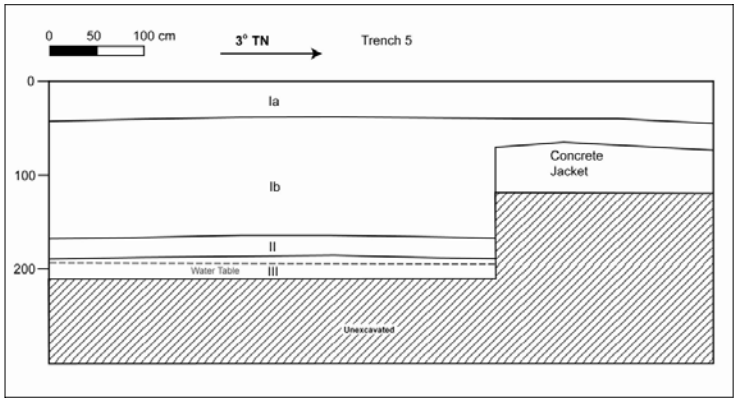
Stratum Ic: 30 - 40 cmbs	Fill Horizon; 10 YR 5/2, grayish brown; gravel; structureless; slightly hard dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Similar to stratum Ia but has a matrix of Ic: Fill Horizon; 10 YR 2/2, very dark brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; abrupt irregular lower boundary.
Stratum Id: 30/40 - 50 cmbs	Fill Horizon; 10 YR 2/1, black; sandy loam; structureless; friable dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Ash and charcoal mixed into a terrigenous fill.
Stratum Ie: 30/50 - 150 cmbs	Fill Horizon; 10 YR 4/6, dark yellowish brown; clay loam; structureless; slightly hard dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Terrigenous fill containing 20-30% basalt gravel.
Stratum II: 150 - 185 cmbs	Pond sediment; 10 YR 3/2, dark yellowish brown; clay loam; structureless; slightly hard dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Natural pond sediment. Mottled with sediment of the same description but of color 10 YR 5/2. This stratum has a relatively high organic content – it contains small roots, a few land snail shells and some small localized peaty plant remains.
Stratum III: 185 - 210 cmbs	Marine sand; 10 YR 5/1, gray; coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary. Marine deposited sand occupying a low area that became a natural pond. Sand was not observed to contain organic material.

Figure 30. Trench 4 east wall, looking roughly south. Most of the natural sediments are below the water table in this photograph.

Trench 5

Trench 5 was 6.3 meters long, 0.8 meters wide and 2.10 meters deep. It was excavated to test for the southern extension of the high ground found in Trenches 1 and 2.

Trench 5 contained fill over natural pond sediments. No high ground was found in this trench, but a concrete jacket hindered the location of the transition from pond sediment to high ground.



Stratum Ia: 0 - 40 cmbs	Fill Horizon; 5 YR 4/2, dark reddish gray; sandy loam; structureless; loose dry consistency; slightly plastic; no cementation; abrupt smooth lower boundary. Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum contains modern trash.
Stratum Ib: 40 - 165 cmbs	Fill Horizon; 10 YR 4/3, brown; silt loam; structureless; weakly coherent dry consistency; non-plastic; no cementation; clear irregular lower boundary. Gravelly terrigenous fill.

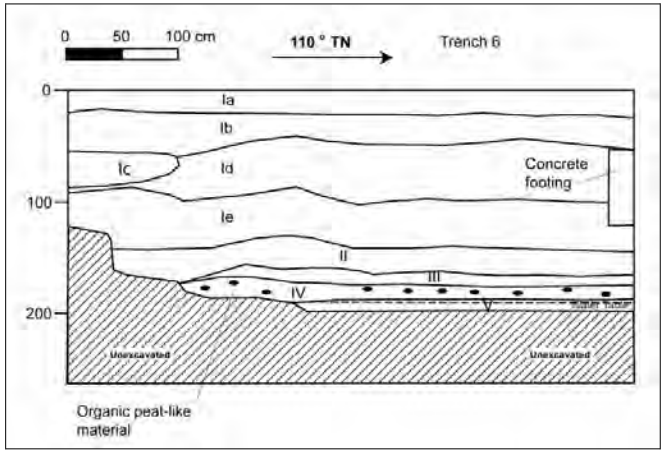
Stratum II: 165 - 185 cmbs	Pond sediment; 10 YR 3/2, dark yellowish brown; clay loam; structureless; slightly hard dry consistency; non-plastic; no cementation; abrupt smooth lower boundary. Natural pond sediment. Mottled with sediment of the same description but of color 10 YR 5/2. This stratum has a relatively high organic content – it contains small roots, a few land snail shells and some small localized peaty plant remains.
Stratum III: 185 - 210 cmbs	Marine sand; 10 YR 5/1, gray; coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary. Marine deposited sand occupying a low area that became a natural pond. Sand was not observed to contain organic material.

Figure 31. Trench 5 east wall photograph. Concrete jacket visible in photo terminated excavation of trench towards north edge of project area.

Trench 6

Trench 6 was 6.5 meters long, 0.8 meters wide and 2.0 meters deep. It was excavated for general project area coverage.

Trench 6 contained fill over natural pond sediments. A partial rib bone was found in the natural sediments in this trench. The bone was identified as most likely pig, with a remote possibility that it is dog. No other bones were found in the trench despite extensive probing of the back dirt and sidewalls with trowels.



Stratum Ia: 0 - 20 cmbs

Fill Horizon; 5 YR 3/2, very dark grayish brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; clear smooth lower boundary.

Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum is a matrix mixed with gravel and some calcareous sand.

Stratum Ib: 20 - 55 cmbs

Fill Horizon; 10 YR 4/3, brown; sandy loam; structureless; frim moist consistency; slightly plastic; no cementation; clear wavy lower boundary.

Stratum Ic: 55 - 90 cmbs

Fill Horizon; 10 YR 4/3, brown; sandy clay loam; structureless; firm moist consistency; plastic; no cementation; diffuse wavy lower boundary.

Stratum Id: 50 - 100 cmbs

Fill Horizon; 10 YR 3/6, dark yellowish brown; sandy clay loam; structureless; firm moist consistency; plastic; no cementation; diffuse wavy lower boundary.

Stratum Ie: 90 - 140 cmbs

Fill Horizon; 5 YR 4/4, olive; clay loam; structureless; friable moist consistency; slightly plastic; no cementation; clear wavy lower boundary.

Stratum II: 140 - 170 cmbs

Fill Horizon; 2.5 YR 3/3, dark olive brown; sandy clay; structureless; firm moist consistency; non-plastic; no cementation; abrupt wavy lower boundary.

Stratum III: 160 - 170 cmbs

Pond sediment; 2.5 YR 4/1, dark gray; sandy loam; structureless; sticky wet consistency; plastic; no cementation; clear smooth lower boundary.

Natural pond sediment. A non-human mammal rib bone fragment believed to be either dog or pig was discovered during backhoe excavation of this stratum or Stratum IV immediately below. Manual probing of the trench uncovered no further bones.

Stratum IV: 170 - 185 cmbs

Pond sediment; 10 YR 4/2, dark grayish brown; sandy clay loam; structureless; sticky wet consistency; plastic; no cementation; clear smooth lower boundary.

Natural pond sediment. Contains some dense peaty organic material.

Stratum V: 185 - 198 cmbs

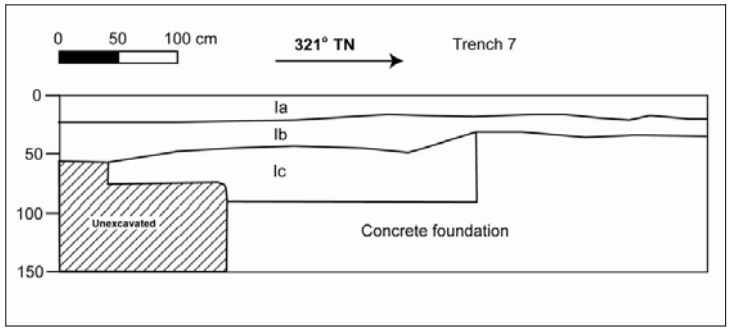
Marine sand; Gley 2 5/1, greenish gray; medium sand; structureless; non-sticky wet consistency; non-plastic; no cementation; lower boundary on coral shelf.

Marine deposited sand occupying the low area that became a natural pond. No organic material observed.

Trench 7

Trench 7 was 7 meters long, 0.8 meters wide and 0.9 meters deep. It was excavated to test for general project area coverage.

Trench 7 contained fill over concrete slabs. Excavations terminated early in this trench and Trench 8 was excavated as close to the location of Trench 7 as possible in an attempt to uncover natural sediments. Trench 7 primarily documents the high degree of disturbance from modern construction in the project area.

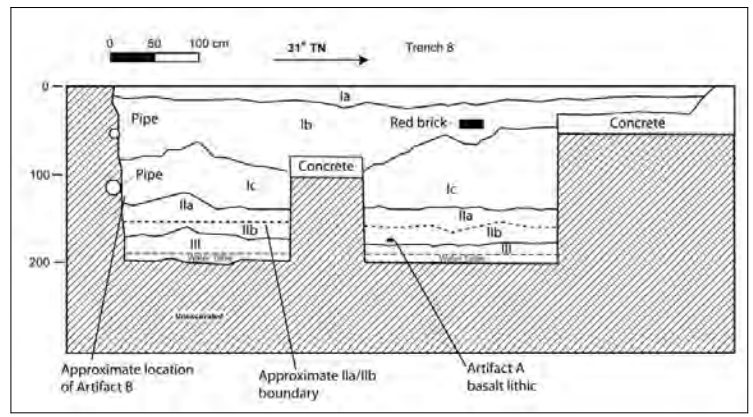


Stratum Ia: 0 - 20 cmbs	Fill Horizon; 10 YR 4/2, dark grayish brown; sandy loam; structureless; loose dry consistency; non- plastic; no cementation; clear smooth lower boundary. Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum is a matrix mixed with gravel.
Stratum Ib: 20 – 30/60 cmbs	Fill Horizon; 10 YR 5/3, brown; sandy loam; structureless; loose dry consistency; slightly plastic; no cementation; clear wavy lower boundary.
Stratum Ic: 30/60 - 90 cmbs	Fill Horizon; 10 YR 4/4, dark yellowish brown; sandy loam; structureless; loose dry consistency; slightly plastic; no cementation; lower boundary is mostly on concrete slab and at bottom of excavation.

Trench 8

Trench 8 was 6.5 meters long, 0.8 meters wide and 2.0 meters deep. It was excavated for general project area coverage and to expose natural sediments after Trench 7 came down on a concrete foundation.

Trench 8 contained fill over natural pond sediments. It's excavation was truncated significantly by the a number of pipes and concrete jackets crossing the trench. During excavation the backhoe uncovered a single historic bottle, Feature B, from the bottom of the fill horizon Ic. A basalt lithic, Feature A, was found in the pond sediment in the sidewall of the trench and is believed to be of traditional Hawaiian origin. No other artifacts were found in this trench.



Stratum Ia: 0 - 15 cmbs	Fill Horizon; 5 YR 3/2, very dark grayish brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; clear smooth lower boundary. Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum is a matrix mixed with gravel and some calcareous sand.

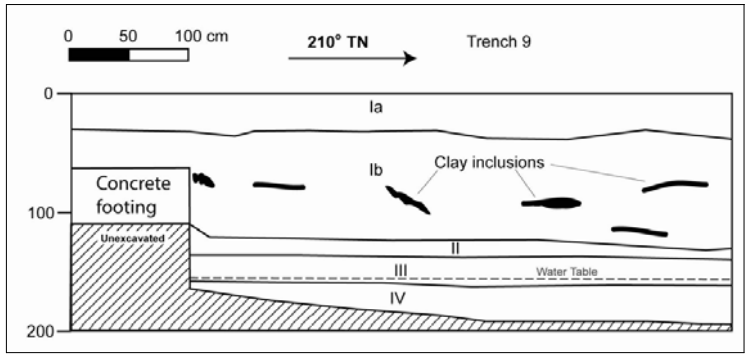
Stratum Ib: 15 – 70/85 cmbs	Fill Horizon; 10 YR 2/2, very dark brown; very gravelly loam; structureless; loose dry consistency; non-plastic; no cementation; abrupt wavy lower boundary.
Stratum Ic: 70/85 - 140 cmbs	Fill Horizon; 10 YR 4/4, dark yellowish brown; clay loam; weak crumb structure; loose moist consistency; slightly plastic; no cementation; abrupt smooth lower boundary.
Stratum IIa: 140 - 160 cmbs	Pond sediment; Gley 1 2.5/1, greenish black; clay loam; structureless; sticky wet consistency; plastic; no cementation; abrupt wavy lower boundary. Natural pond sediments. Contains plentiful roots and rootlets compared to the rest of the project area.
Stratum IIb: 160 - 180 cmbs	Pond sediment; 10 YR 4/2, dark grayish brown; clay loam; structureless; sticky wet consistency; slightly plastic; no cementation; abrupt wavy lower boundary. Natural pond sediments, contains some roots and rootlets.
Stratum III: 180 - 200 cmbs	Marine sand; 10 YR 5/1, gray; coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; very abrupt smooth lower boundary. Marine deposited sand occupying a naturally low lying area. No organic or cultural material observed. This stratum lies directly on top of the coral shelf.

Figure 32. Trench 8 east wall photograph, southwest half. Natural sediments appear just above the water table.

Trench 9

Trench 9 was 5.3 meters long, 0.8 meters wide and 1.90 meters deep. It was excavated for general project area coverage.

Trench 9 contained fill over natural pond sediments.



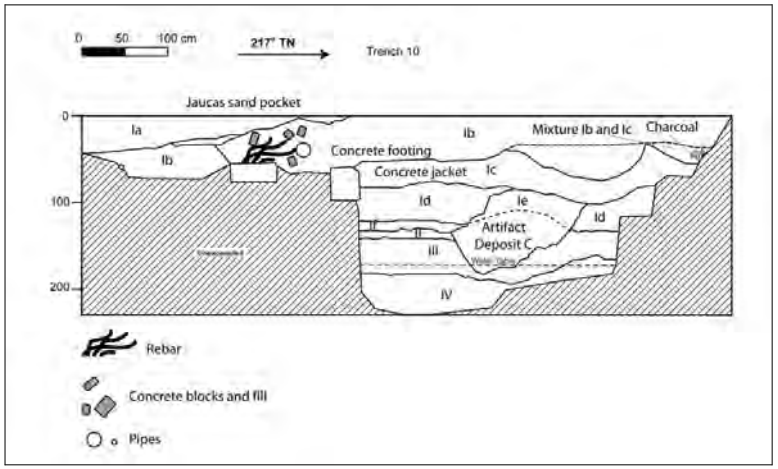
Stratum Ia: 0 - 30 cmbs	Fill Horizon; 5 YR 3/2, very dark grayish brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; clear smooth lower boundary. Modern land surface; overlaid by a thin layer of gray crushed contruction gravel. Stratum is a matrix mixed with gravel and some calcareous sand.
Stratum Ib: 30 – 130 cmbs	Fill Horizon; 10 YR 3/4, dark yellowish brown; gravelly loam; structureless; loose dry consistency; non-plastic; no cementation; clear wavy lower boundary. This fill stratum contains an unusually high number of clay inclusions.

Stratum II: 130 - 140 cmbs	Pond sediment; Gley 1 5/2, grayish green; clay loam; structureless; friable moist consistency; slightly plastic; no cementation; abrupt smooth lower boundary.
Stratum III: 140 - 160 cmbs	Pond sediment; 10 YR 4/2, dark grayish brown; sandy clay loam; structureless; sticky wet consistency; plastic; no cementation; clear smooth lower boundary. Natural pond sediment.
Stratum IV: 160 - 190 cmbs	Maine sand; Gley 2 5/1, bluish gray; coarse sand; structureless; loose moist consistency; non-plastic; no cementation; abrupt wavy lower boundary. Marine deposited sand occupying the low area that became a natural pond. No organic material observed.

Ternch 10

Trench 10 was 7.5 meters long, 0.8 meters wide and 2.3 meters deep. It was excavated for general project area coverage.

Trench 10 contained fill over natural pond sediments. Trench 10 was truncated by concrete jackets and shows disturbance of natural sediments. Feature C, a diffuse trash deposit in a matrix of terrigenous fill, was found in this trench. It contained small amounts of rusted metal, broken glass and two historic bottles. See Section 7.4, Subsurface Findings, for more information about these bottles.



Stratum Ia: 0 – 0/43 cmbs	Fill Horizon; 5 YR 3/2, very dark grayish brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; clear broken lower boundary. Modern land surface; almost entirely gravel with a matrix of sandy loam as described above.

Stratum Ib: 0 – 50/80 cmbs	Fill Horizon; 10 YR 3/4, dark yellowish brown; sandy loam; structureless; weakly coherent dry consistency; slightly plastic; no cementation; diffuse irregular and broken lower boundary.
Stratum Ic: 35/75 – 70/100 cmbs	Fill Horizon; 10 YR 3/6, dark yellowish brown; clay loam; structureless; firm moist consistency; plastic; no cementation; clear irregular and broken lower boundary.
Stratum Id: 75/83 – 70/100 cmbs	Fill Horizon; 10 YR 3/6, dark yellowish brown; sandy loam; structureless; dry hard consistency; non-plastic; no cementation; abrupt wavy and broken lower boundary.
Stratum Ie: 83/135 – 135/180 cmbs	Fill Horizon; 7.5 YR 3/4, dark brown; sandy clay loam; structureless; sticky wet consistency; non-plastic; no cementation; clear broken lower boundary. This stratum was created during the excavation for a trash pit. It is similar stratum to Id and forms a matrix for trash in Feature C. Feature C is concentration of trash including metal, glass, and two machine made bottles. See Section 7.4, Subsurface Findings for more information on these findings.
Stratum If: 120 – 135 cmbs	Fill Horizon; 5 YR 3/4, dark reddish brown; gravelly clay loam; structureless; sticky wet consistency; slightly plastic; no cementation; clear broken lower boundary.
Stratum II: 130 – 140 cmbs	Pond sediment; 10 YR 3/2, very dark grayish brown; clay loam; structureless; sticky wet consistency; plastic; no cementation; abrupt wavy lower boundary. Contains some rootlets and scattered organic material.
Stratum III: 140 – 180 cmbs	Pond Sediment; 10 YR 4/2, dark grayish brown; clay loam; structureless; sticky wet consistency; plastic; no cementation; abrupt wavy lower boundary.

Stratum III: 180 - 230 cmbs

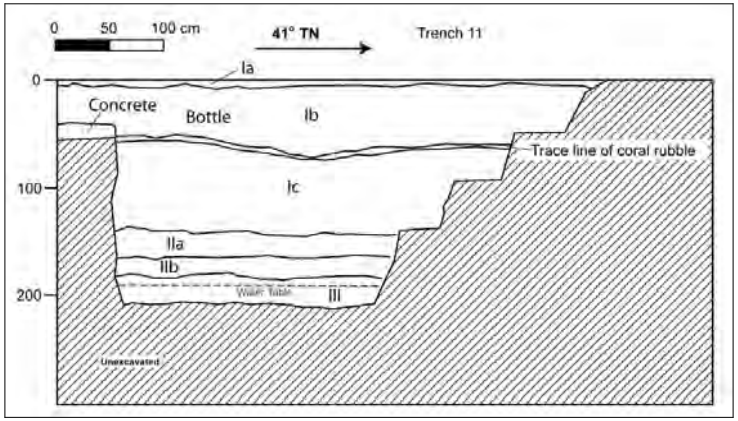
Marine sand; Gley 2 4/1, dark bluish gray; clay coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; very abrupt smooth lower boundary.

Marine deposited sand occupying a naturally low lying area. No organic or cultural material observed. This stratum lies directly on top of the coral shelf.

Trench 11

Trench 11 was 5.0 meters long, 0.8 meters wide and 2.1 meters deep. It was excavated for general project area coverage

Trench 11 contained fill over natural pond sediments.



Stratum Ia: 0 – 0/43 cmbs

Fill Horizon; 5 YR 3/2, very dark grayish brown; sandy loam; structureless; firm moist consistency; non-plastic; no cementation; clear broken lower boundary.

Modern land surface; almost entirely gravel with a matrix of sandy loam as described above.

Stratum Ib: 0 – 50/60 cmbs

Fill Horizon; 10 YR 3/2, very dark grayish brown; sandy loam; weak granular structure; loose dry consistency; non-plastic; no cementation; abrupt wavy lower boundary.

Stratum Ic: 50/60 – 140 cmbs

Fill Horizon; 10 YR 5/3, brown; clay loam; structureless; non-sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary.

Stratum IIa: 140 – 155 cmbs

Pond sediment; 10 YR 3/1, very dark gray; sandy clay; structureless; sticky wet consistency; slightly plastic; no cementation; abrupt smooth lower boundary.

Stratum IIb: 155 – 185 cmbs

Pond sediment; 10 YR 5/2, grayish brown; sandy clay; structureless; sticky wet consistency; slightly plastic; no cementation; abrupt smooth lower boundary.

Contains some peat like deposits.

Stratum III: 185 - 210 cmbs

Marine sand; 10 YR 4/1, dark gray; coarse sand; structureless; non-sticky wet consistency; non-plastic; no cementation; abrupt smooth lower boundary.

Marine deposited sand occupying a naturally low lying area. No organic or cultural material observed. This stratum lies directly on top of the coral shelf.

APPENDIX G

Site Development Criteria for the 280 Beach Walk Project

SITE DEVELOPMENT CRITERIA

280 BEACHWALK

SITE DEVELOPMENT CRITERIA

1.0	Project Location:	Waikiki, O'ahu, Hawai'i
2.0	Tax Map Keys:	1-2-6-003 :026 1-2-6-003 :027 1-2-6-003 :048 1-2-6-003 :049 (owned by RGM Trust) 1-2-6-003 :058
3.0	State Land Use District:	Urban District (U)
4.0	City / County Zoning:	Wakiki Special District (WSD) -Resort Commercial Precinct (RC) -Resort Mixed-Use Precinct (RMU)
5.0	City/County Development Plan:	Primary Urban Center (PUC)
6.0	Flood Zone:	FIRM Zone A0 (Finish Floor at +2'-0" above existing grades)
6.0	Site Area:	1-2-6-003 :026 13,664 SF 1-2-6-003 :027 7,730 SF 1-2-6-003 :048 6,272 SF 1-2-6-003 :049 4,888 SF 1-2-6-003 :058 2,710 SF Total: 35,264 SF
7.0	FAR:	Resort Mixed Use Parcels (:027 + :058 = 10,440 SF) 1.36 Resort Commercial Parcels (:026 + :048 + :049 = 24,824 SF) 1.75 Joint Development (All Parcels) 1.63
8.0	FAR Site Area:	41,920 SF (includes 1/2 area of ROW at RC parcels)
9.0	Allowable Building Area:	68,329 SF
10.0	Setbacks;	Front: 15' Side: 0' Rear: 0'

11.0 Required Open Space:	35% of Resort Mixed Use (RMU) Parcels =	3,654 SF
12.0 Required Landscape Area:	Required front-yard area minus necessary access ways and drives	
	1,975 SF – Non ADA-compliant interpretation	
	1,000 SF – ADA-compliant interpretation	
13.0 Proposed Use:	Retail/Restaurant	
14.0 Proposed Building Area:	Level 01 =	17,550 SF
	Level 02 =	16,649 SF
	Total =	34,199 SF
15.0 Height Limit:	300 FT	
16.0 Proposed Height:	46’ – 0” Maximum to Top of Ridge	
17.0 Parking Requirements:	Level 01 Program (Exempt) =	0 Spaces
	Level 02 Program (1 Space/800SF) =	20 Spaces
	Dedicated to Parcel 49 through JDA =	26 Spaces
	Total Required Parking Spaces =	46 Spaces
	Total Provided Parking Spaces =	47 Spaces
18.0 Loading Requirements:	3 Loading Bays	
	2 – 12’ X 35’ Spaces	
	1 -- 9’ X 19’ Space	