

BOARD OF WATER SUPPLY

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



September 23, 2002

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EDDIE FLORES, JR., Chairman
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02 SEP 25 11:18
CLIFFORD S. JAMILE
Manager and Chief Engineer
DONNA FAY K. KIYOSAKI
Deputy Manager and Chief Engineer

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
Central Pacific Plaza, 4th Floor
220 South King Street
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Finding of No Significant Impact for the Board of Water Supply's Proposed
Kalawahine 2.0 Million Gallon Reservoir Project, Honolulu, Oahu, Hawaii

The Board of Water Supply has reviewed the comments received during the public comment period which began on January 8, 2001. We have determined that the environmental impacts of this project have been adequately addressed as discussed in the final environmental assessment (EA) and are therefore, issuing a Finding of No Significant Impact. We request that the proposed project and our issuance be published in the next Office of Environmental Quality Control (OEQC) Bulletin.

Attached are the completed OEQC bulletin publication form and four (4) copies of the final EA for your review.

If you have any questions, please contact Scot Muraoka at 527-5221.

Very truly yours,


CLIFFORD S. JAMILE
Manager and Chief Engineer

Attachments

cc: Howard Endo, SEY Engineers, Inc.

2002-10-08-0A-FA-

OCT 8 2002

FILE COPY

**FINAL
ENVIRONMENTAL ASSESSMENT
FOR THE
(KALAWAHINE 180 RESERVOIR)
HONOLULU, OAHU, HAWAII**

RECEIVED
02 SEP 25 AM 11:18
OFFICE OF ENVIRONMENTAL
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TAX MAP KEY: 2-4-43:82 & Portion of 90;
2-4-32:01 & 02;
2-4-14, 17, 18, 30 & 32;
2-1-39

This document is prepared pursuant to Chapter 343, HRS

PROPOSING AGENCY:

Board of Water Supply
City & County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

PREPARED BY:

Shimabukuro, Endo & Yoshizaki, Inc.
dba SEY Engineers
1126 12th Avenue, Room 309
Honolulu, Hawaii 96816



AUGUST 2002

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- B. Copies of Pre-Assessment Responses
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- D. Copies of Neighborhood Board Meeting Minutes

CHAPTER I SUMMARY

1.1 General Information

The City and County of Honolulu Board of Water Supply (BWS) proposes to alleviate the existing potable water storage deficit in the Metro Low West (180') potable water system service area (below the 180' elevation from Salt Lake to Diamond Head in Honolulu). The current deficit for water storage is 55 million gallons (MG) as reported in the Honolulu 180' Regional Reservoir Site Location Study (Kwock Associates Inc., 1999). Additional 2.0 MG storage will improve water system performance and reliability in meeting domestic fire protection needs as well as provide greater flexibility of the water system in emergency situations.

The proposed action is to construct a 2.0 MG reservoir at the Kalawahine site above Roosevelt High School and approximately 6,000 lineal feet of 24-inch influent/effluent line from the reservoir to Alapai Street connecting to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line. The proposed action is the preferred alternative of the BWS after review of the Reservoir Site Location Study and the Kalawahine 180' Reservoir Site Feasibility Study (Mitsunaga & Associates, 2000). The reservoir site was selected in a systematic selection process that evaluated potential reservoir sites based on accessibility; geologic and hydrologic hazards; and archaeological, geotechnical and aesthetic concerns.

The proposed 24-inch influent/effluent line will run from the Kalawahine reservoir site inside the west property line of Roosevelt High School and south down Auwaiolimu and Pensacola Streets to Wilder Avenue then west along Thurston Avenue and Green Street and connect to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line at Alapai Street. The route of the new waterline was selected by the BWS because it provided for the hydraulic performance of the Kalawahine Reservoir as a regional reservoir, remained below the reservoir floor elevation of 160 feet, was the shortest route to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line and had the least impact on traffic. Alternatives to continue the new waterline south down Pensacola Street and to connect to the existing 42-inch transmission line in Kinau Street and/or the existing 12-inch waterline in Wilder Avenue were considered and rejected by BWS.

This Final Environmental Assessment (EA) has been prepared pursuant to Chapter 343, HRS. It describes the project and the affected environment, discusses proposed actions and potential environmental impacts, and proposes mitigation measures. After review of the Draft EA by various governmental agencies, other interested organizations and individuals was completed and following a formal 30-day comment period, the proposing and approving agency, the BWS, has concluded that the project will have no significant impact on the environment and has determined a **Finding of No Significant Impact**.

1.2 Environmental Assessment Information

Proposing Agency Board of Water Supply
City & County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Contact: Mr. Scot Muraoka (527-5221)

Approving Agency: Board of Water Supply

Project Title: Kalawahine 180 Reservoir

Proposed Action Construction of a 2 million gallon reinforced concrete reservoir, access road, about 6,000 lineal feet of waterlines, and associated appurtenances.

Project Location: Honolulu, Oahu, Hawaii

Tax Map Key: Reservoir: Tax Map Key 2-4-43:82
Access Road: Tax Map Key 2-4-43: Portion of 90
Waterline: Tax Map Keys: 2-4-32:01 and 02;
2-4-14, 17, 18, 30 & 32; and 2-1-39

Property Owners: Reservoir: Board of Water Supply
Access Road: Department of Hawaiian Home Lands
Waterline: Department of Education in Roosevelt High School
Department of Land and Natural Resources
City & County of Honolulu in Road Rights-of-Way

State Land Use: Urban

County Zoning: Reservoir: General Preservation P-2
Access Road: General Preservation P-2
Waterline: Roosevelt High School – Residential R-5,
Road Rights-of-Way – Residential R-5,
Medium Density Apartments A-2

County Development Plan: Reservoir: Preservation
 Access Road: Preservation
 Waterline: Roosevelt High School – Public Facility,
 Road Rights-of-Way – Public Facility,
 Residential and Medium Density
 Apartments

Special Designation: Punchbowl Special District
 Reservoir: Inside District but Outside Core Area
 Access Road: Inside District but Outside Core Area
 Waterline: Roosevelt Inside District But
 High School: Outside Core Area
 Road Rights- Auwaiolimu St: Inside
 of-Way: District Core Area
 Other Streets: Inside
 District but Outside Core
 Area

Flood Hazard Area
Zone X: Outside of 500-year Flood Plain

Estimated Construction Cost: \$7,104,000

Determination: Finding of No Significant Impact

1.3 Parties Consulted

1.3A Pre-Assessment Consultation

Prior to preparing the Draft Environmental Assessment (EA), the agencies, organizations, and utilities listed below from the master list provided by OEQC were consulted by letter on April 18, 2000. Also, all residents of parcels adjoining the reservoir site were consulted by letter on April 18, 2000. Substantive comments were received from parties marked below with an asterisk (*) and the comments were incorporated into the Draft EA as appropriate. Copies of substantive comment letters are included in Appendix B.

Federal:

U.S. Department of Army (DA), Corps of Engineers, Pacific Ocean Division*
U.S. Post Office, Honolulu District

State of Hawaii:

Department of Business, Economic Development and Tourism (DBEDT)
DBEDT Office of Planning
Department of Land and Natural Resources (DLNR)
DLNR Commission on Water Resource Management*

DLNR Historic Preservation Division*
Department of Education (DOE)*
Department of Health (DOH)*
Office of Hawaiian Affairs*
Department of Hawaiian Home Lands (DHHL)*
Office of Environmental Quality Control
Department of Transportation
Department of Agriculture
Representative Brian Schatz
Representative Kenneth Hiraki
Representative Sylvia Luke
Senator Carol Fukunaga
Senator Rod Tam

City and County of Honolulu

Department of Planning & Permitting (DPP)*
Department of Design & Construction
Department of Parks & Recreation
Department of Facility Maintenance
Department of Transportation Services*
Fire Department*
Police Department
Council Member Andy Mirikitani

Utilities:

Hawaiian Electric Company
The Gas Company*
GTE Hawaiian Telephone
Oceanic Cable

Community Groups/Businesses/Individuals/Etc.:

Makiki Neighborhood Board No. 10
Nuuanu Punchbowl Neighborhood Board No. 12
Papakolea Community Association
Kamehameha Investment Corporation
Residents of Parcels Adjoining Reservoir Site (23)

1.3B Draft EA Review

Copies of the Draft EA were provided to the same agencies, organizations and individuals listed above for their review and comment. Residents of parcels adjoining the reservoir site and all residents of the Kalawahine Streamside Development were also notified in writing of the project and specific requirements concerning the public review period. Responses were received from parties listed below with an asterisk (*) and their comments have been incorporated into the Final EA as appropriate. Copies of comment letters to the Draft EA and responses to the letters are included in Appendix C.

Federal:

U.S. Army Engineer District, Honolulu, Department of Army Civil Works Technical Branch*

U.S. Army Engineer District, Honolulu, Department of Army Regulatory Branch

U.S. Post Office, Honolulu District

State of Hawaii:

Department of Business, Economic Development and Tourism (DBEDT)

DEBT Office of Planning

Department of Land and Natural Resources (DLNR) Historic Preservation Division*

DLNR Commission on Water Resource Management

Department of Education*

Department of Health Environmental Health Administration*

Department of Health Environmental Management Division*

Office of Environmental Quality*

Office of Hawaiian Affairs

Department of Hawaiian Home Lands*

Department of Transportation*

Department of Agriculture

Hawaii State Library

Representative Brian Schatz*

Representative Kenneth Hiraki

Senator Carol Fukunaga

Senator Rod Tam

City and County of Honolulu:

Department of Planning and Permitting*

Department of Design and Construction

Department of Parks and Recreation Services

Department of Facility Maintenance

Department of Transportation Services*

Fire Department*

Police Department*

Council Member Andy Mirikitani

Council Member Jon Yoshimura*

Community Groups/Businesses/Individuals/Etc.:

Makiki Neighborhood Board No. 10
Nuuanu Punchbowl Neighborhood Board No. 12
Papakolea Community Association*
Kamehameha Investment Corporation
Residents of Parcels Adjoining Reservoir Site/Residents of Kalawahine Streamside and
Ainaniku (letter only)*
Residents of Kalawahine Streamside Development/Kalawahine Community Association
(letter only)*
The Gas Company*
Hawaiian Electric Co.
Verizon Hawaii*
Oceanic Cable

1.4 Approvals, Permits, Etc.:

State of Hawaii:

Community Noise Control Permit	DOH
National Pollutant Discharge Elimination System General Permits Discharge of Stormwater Associated with Construction Activity Discharge of Hydrotesting Waters	DOH
Easement for Access Road	DHHL
Easement for Waterline in Roosevelt High School and adjacent parcel	DOE & DLNR

City & County of Honolulu:

Building Permit	DPP
Grading Permit	DPP
Trenching Permit	DPP
Connection to City's Storm Sewer System	DPP
Street Usage Permit	DTS
Development Plan Public Facility Map Amendment	City Council

Punchbowl Special District
Permit (Minor) and Waiver

DPP

Public Use and Utility Waiver
For Structure for than 25 Feet
Above Existing Grade

DPP

Traffic Control Plan

DPP

CHAPTER II DESCRIPTION OF PROPOSED ACTION

2.1 Proposed Action/Technical Characteristics

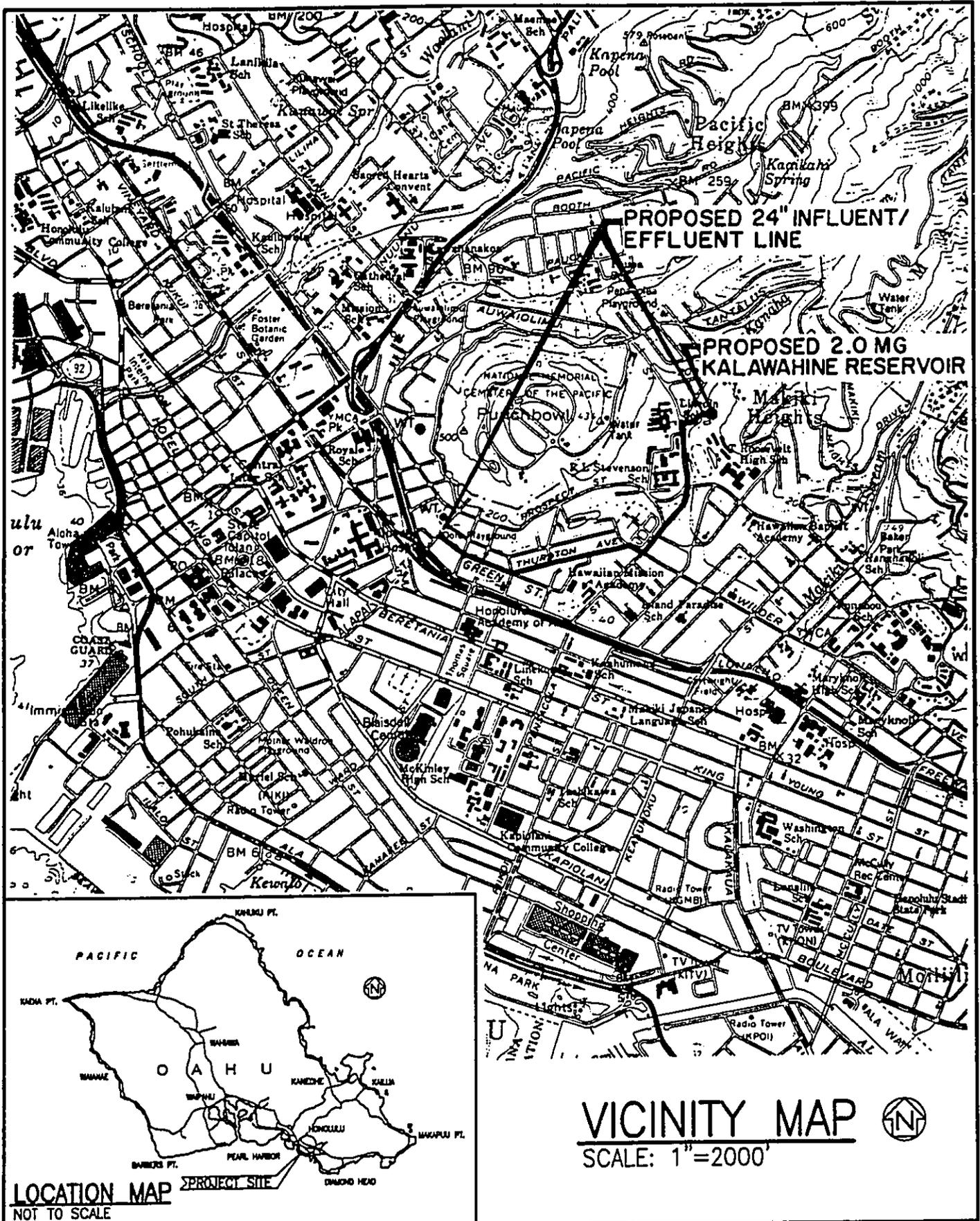
The proposed action is to construct a 2.0 million gallon (MG) reservoir at the Kalawahine site above Roosevelt High School in Papakolea and approximately 6,000 lineal feet of 24-inch influent/effluent line from the reservoir to Alapai Street connecting to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line. See Figure 2-1. The proposed action is the preferred alternative of the Honolulu Board of Water Supply (BWS) after review of the Phase 1 Report Honolulu 180' Regional Reservoir Site Location Study (Kwock Associates, Inc., 1999) and the Kalawahine 180' Reservoir Site Feasibility Study (Mitsunaga & Associates, Inc., 2000). The reservoir site was selected in a systematic selection process that evaluated potential reservoir sites based on accessibility; geologic and hydrologic hazards; and archaeological, geotechnical and aesthetic concerns. The schematic diagram shown in Figure 2-2 incorporates the proposed Kalawahine 180 Reservoir into the existing water supply system.

The proposed reservoir site is located just north of the Roosevelt High School's Rifle Range, straddled between Kanaha Stream on the west and Haalelea Place of the Kalawahine Streamside Development on the east. See Figure 2-3. The proposed reservoir resides on tax map key parcel 2-4-34:Portion of 08 in Papakolea. The circular reservoir will be constructed of reinforced concrete with a diameter of approximately 138 feet and height of approximately 21.5 feet. The spillway and floor elevations will be 180 and 160 feet above mean sea level (MSL), respectively. The proposed layout of the reservoir is shown in Figure 2-3. A cross section of the reservoir lot is shown in Figure 2-4.

An access road with a 12-foot wide pavement will be located in a 25-foot wide easement beginning at Kapahu Street and will provide access to the reservoir lot. The 170-foot long access road will have road grades up to 20 percent. Underground electrical and telephone lines will be provided in the road easement. A profile of the access road is presented in Figure 2-5.

A perimeter road will be constructed around the periphery of the reservoir to meet operation and maintenance requirements. The road will be 12 feet wide and constructed of asphalt concrete.

A 24-inch influent/effluent line approximately 6,000 feet long will be constructed to connect the proposed Kalawahine 180 Reservoir to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line at Alapai Street. The 24-inch line will run from the reservoir inside the west property line of Roosevelt High School and south down Auwaiolimu and Pensacola Streets to Wilder Avenue then west along Thurston Avenue and Green Street and connect to the existing 18-inch influent/effluent line at Alapai Street. The alignment of the new waterline is shown in Figure 2-6.



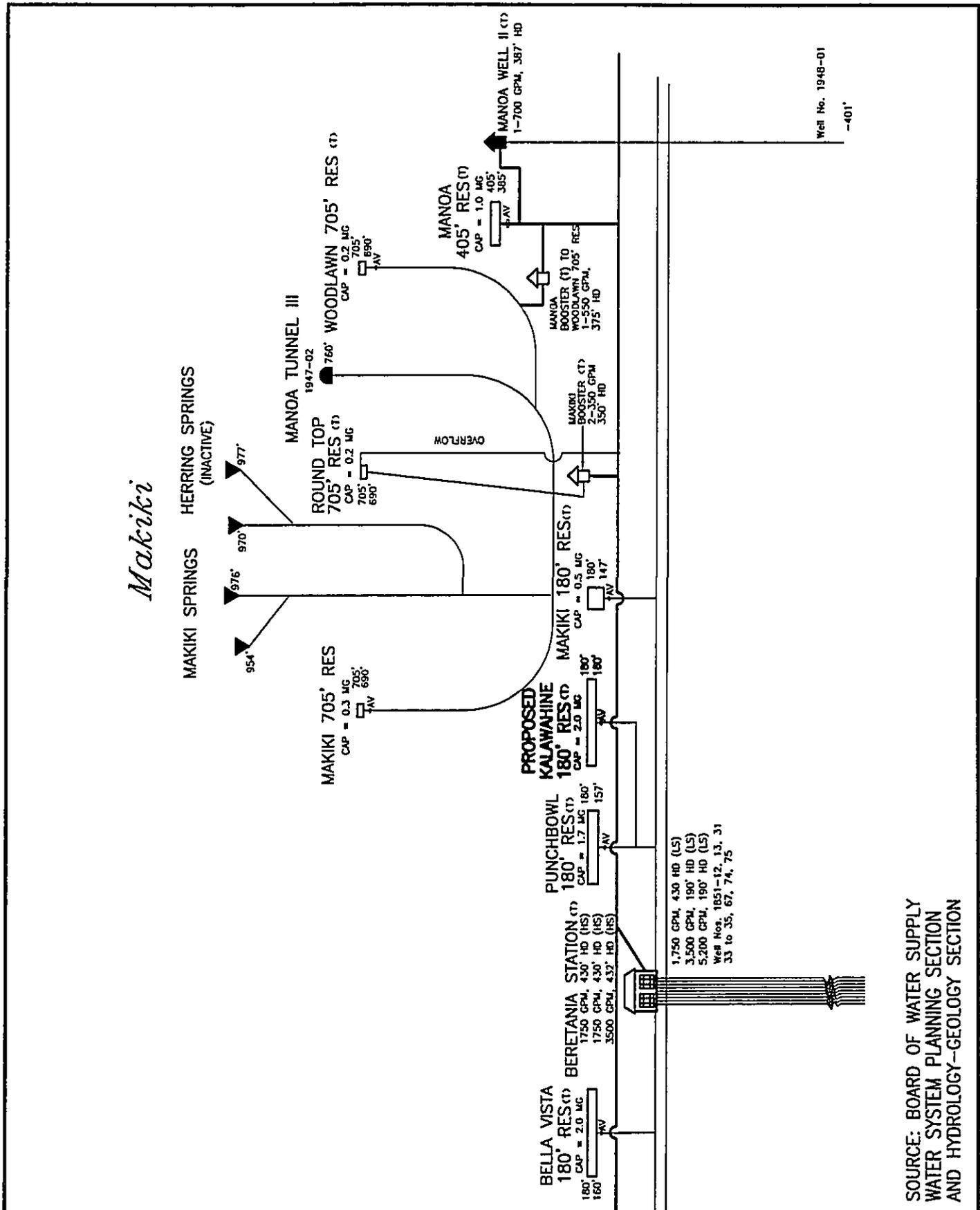
PREPARED FOR:
HONOLULU BOARD OF
WATER SUPPLY

KALAWAHINE 180 RESERVOIR
HONOLULU, OAHU, HAWAII

LOCATION & VICINITY MAPS

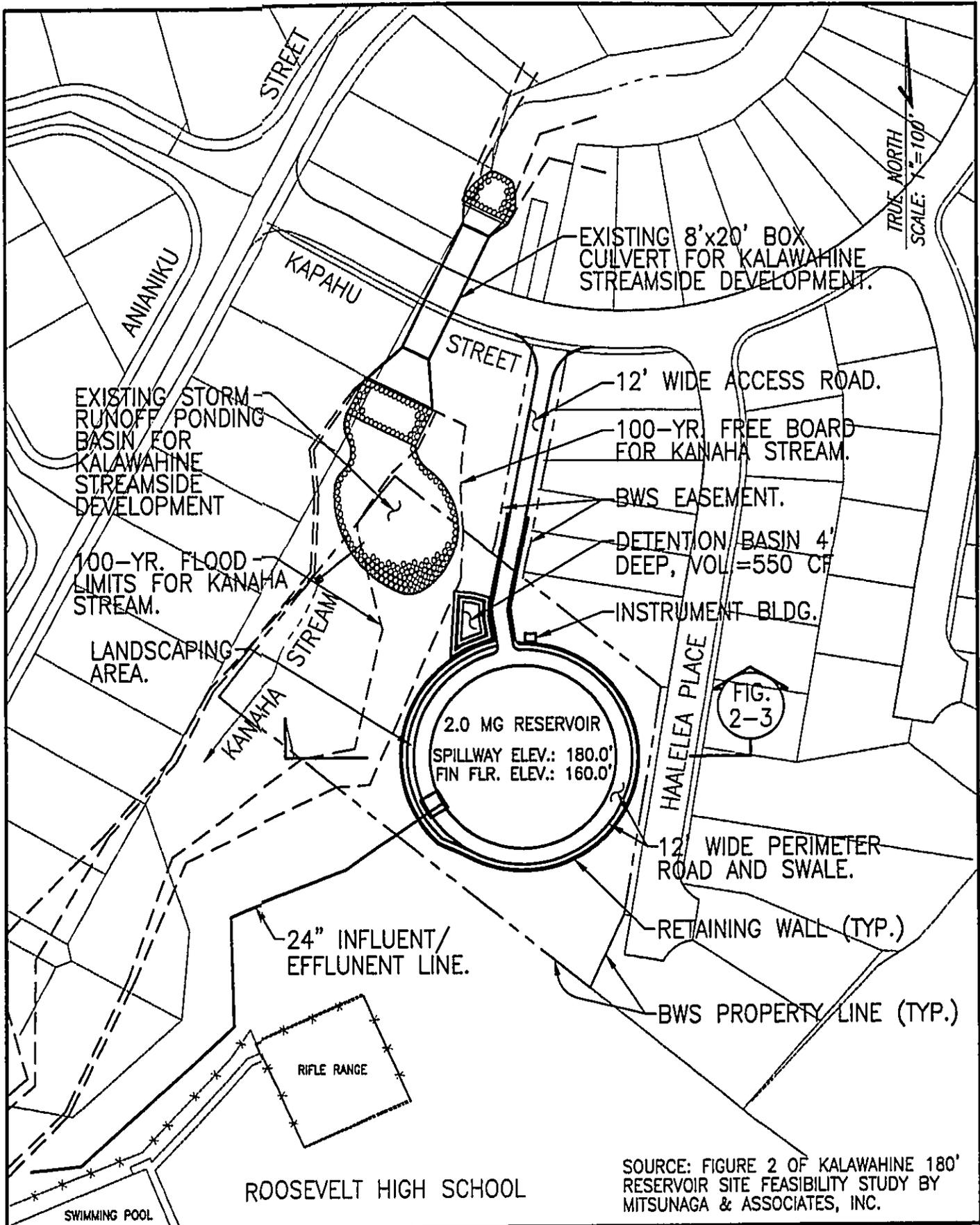
SEI SHIMABUKURO, ENDO & YOSHIZAKI, INC.
Civil & Structural Engineers

FIGURE
2-1



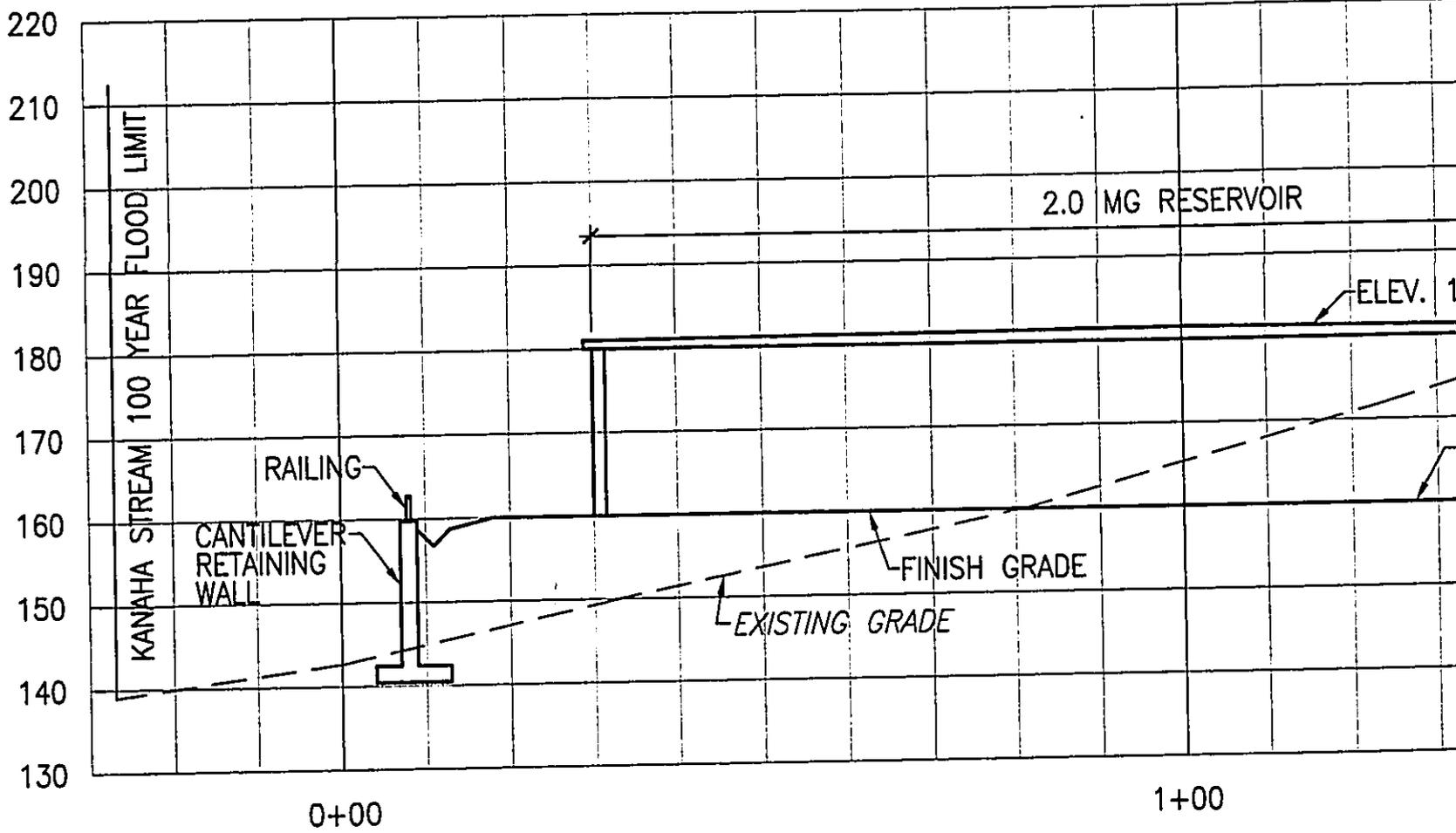
SOURCE: BOARD OF WATER SUPPLY
 WATER SYSTEM PLANNING SECTION
 AND HYDROLOGY-GEOLOGY SECTION

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180' RESERVOIR HONOLULU, OAHU, HAWAII BWS SYSTEM SCHEMATIC	 Shmabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 2-2
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SOURCE: FIGURE 2 OF KALAWAHINE 180' RESERVOIR SITE FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII RESERVOIR SITE PLAN	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 2-3
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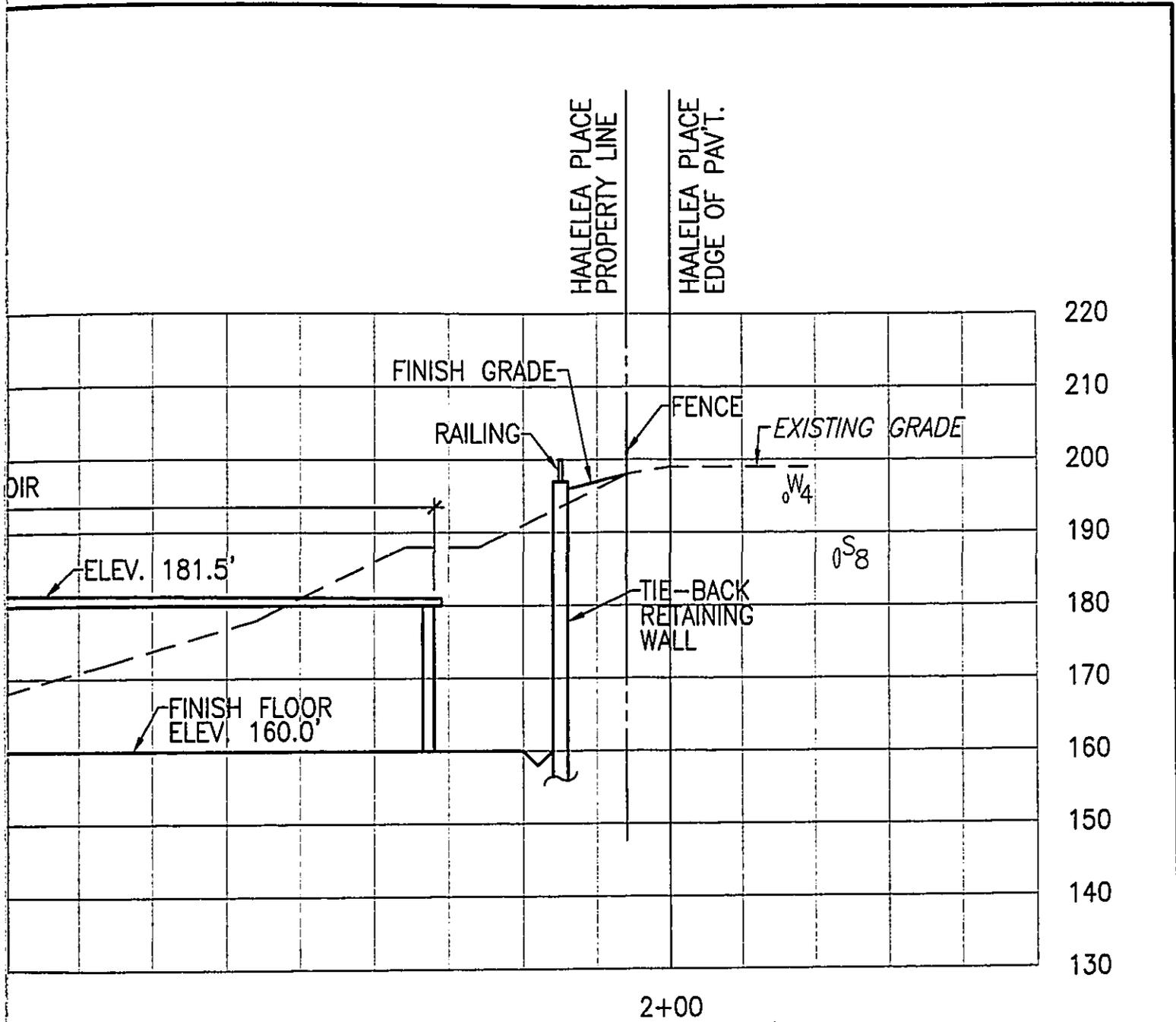


RESERVOIR CROSS
SCALE: 1"=20'

NOTES:

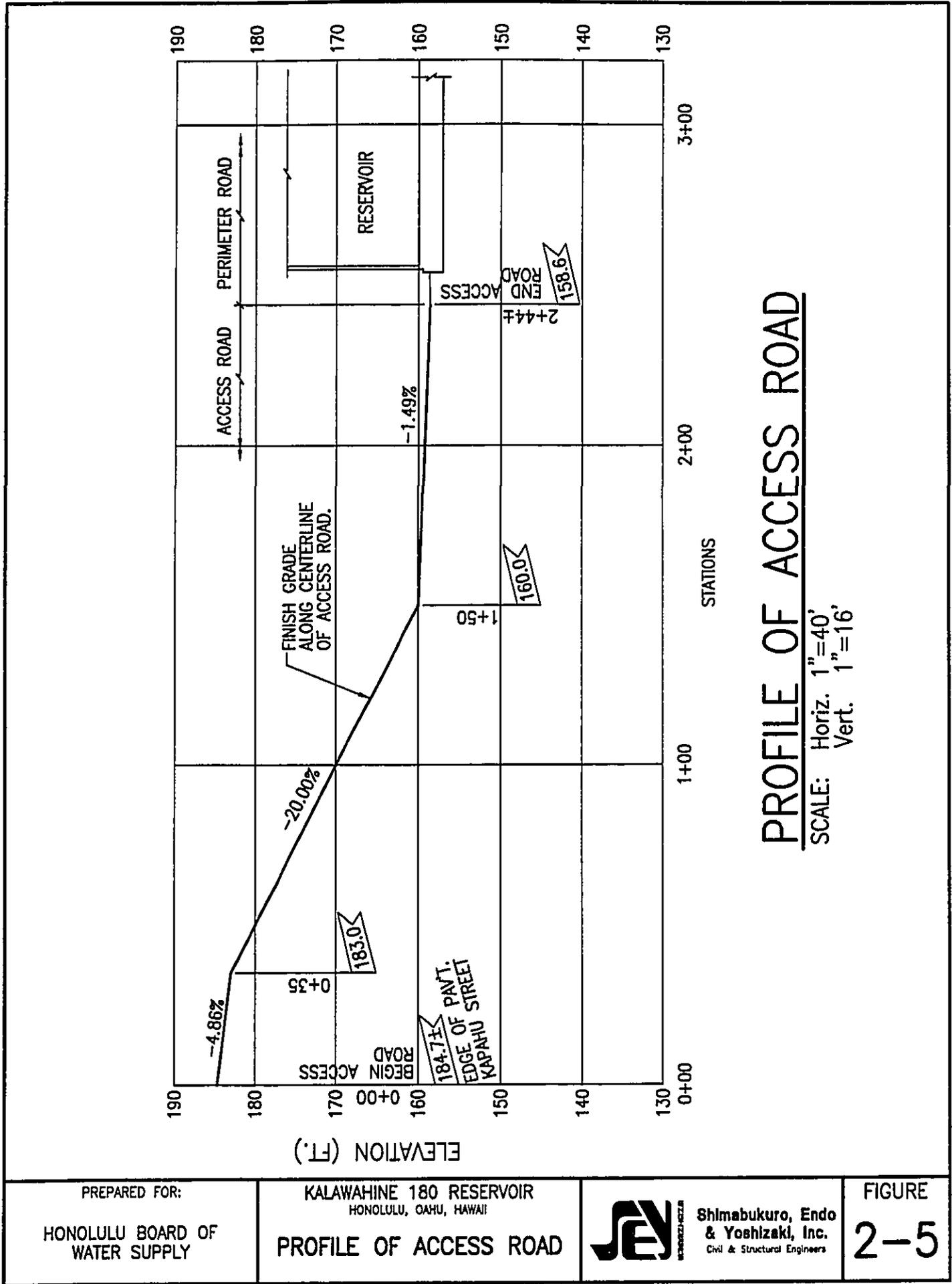
1. SEE FIGURE 2-2 FOR SECTION CUT.
2. THIS FIGURE IS BASED ON FIGURE 4 FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.

HON
V



CROSS SECTION

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII RESERVOIR SECTION	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 2-4
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PREPARED FOR:
 HONOLULU BOARD OF
 WATER SUPPLY

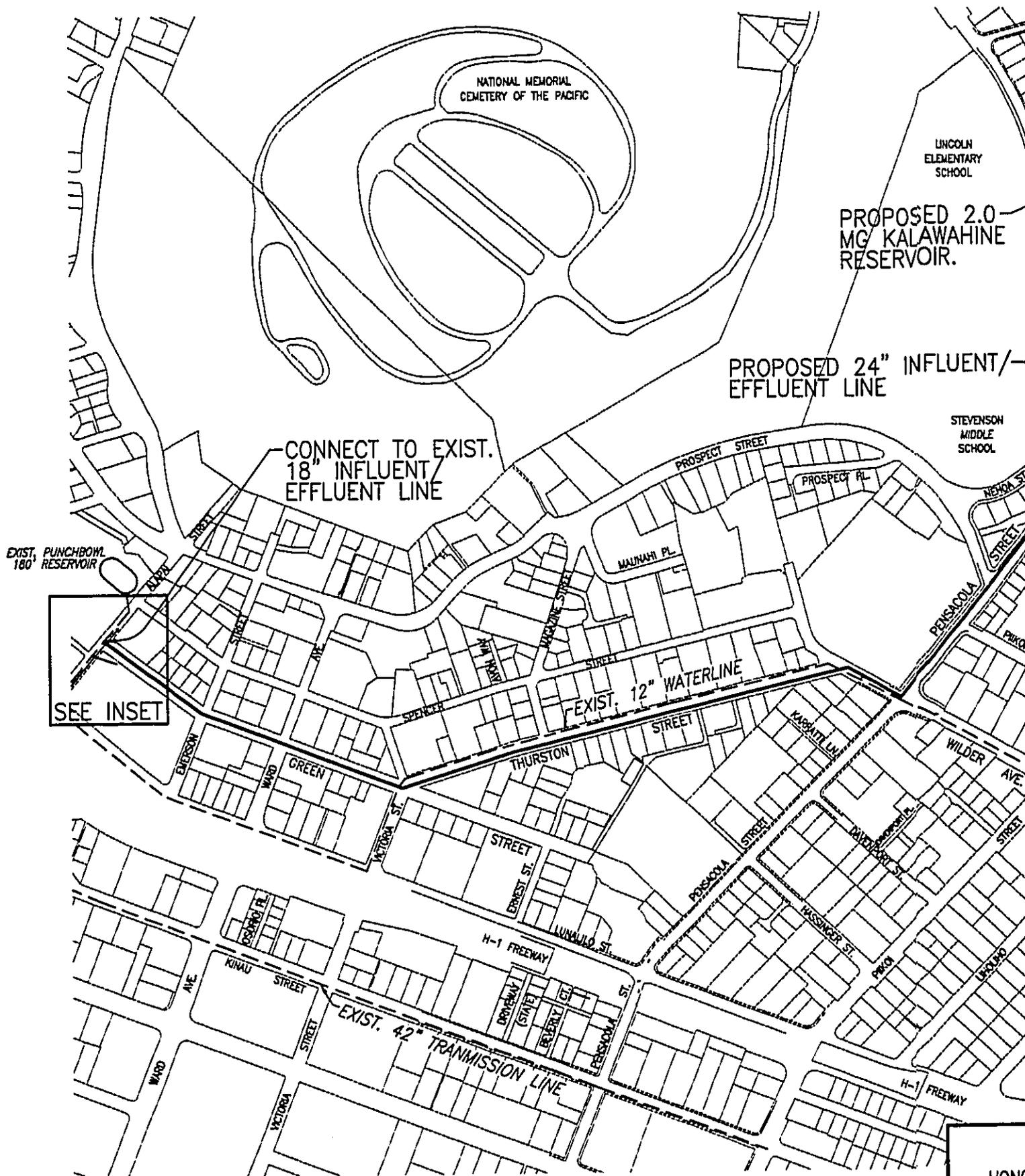
KALAWAHINE 180 RESERVOIR
 HONOLULU, OAHU, HAWAII
PROFILE OF ACCESS ROAD



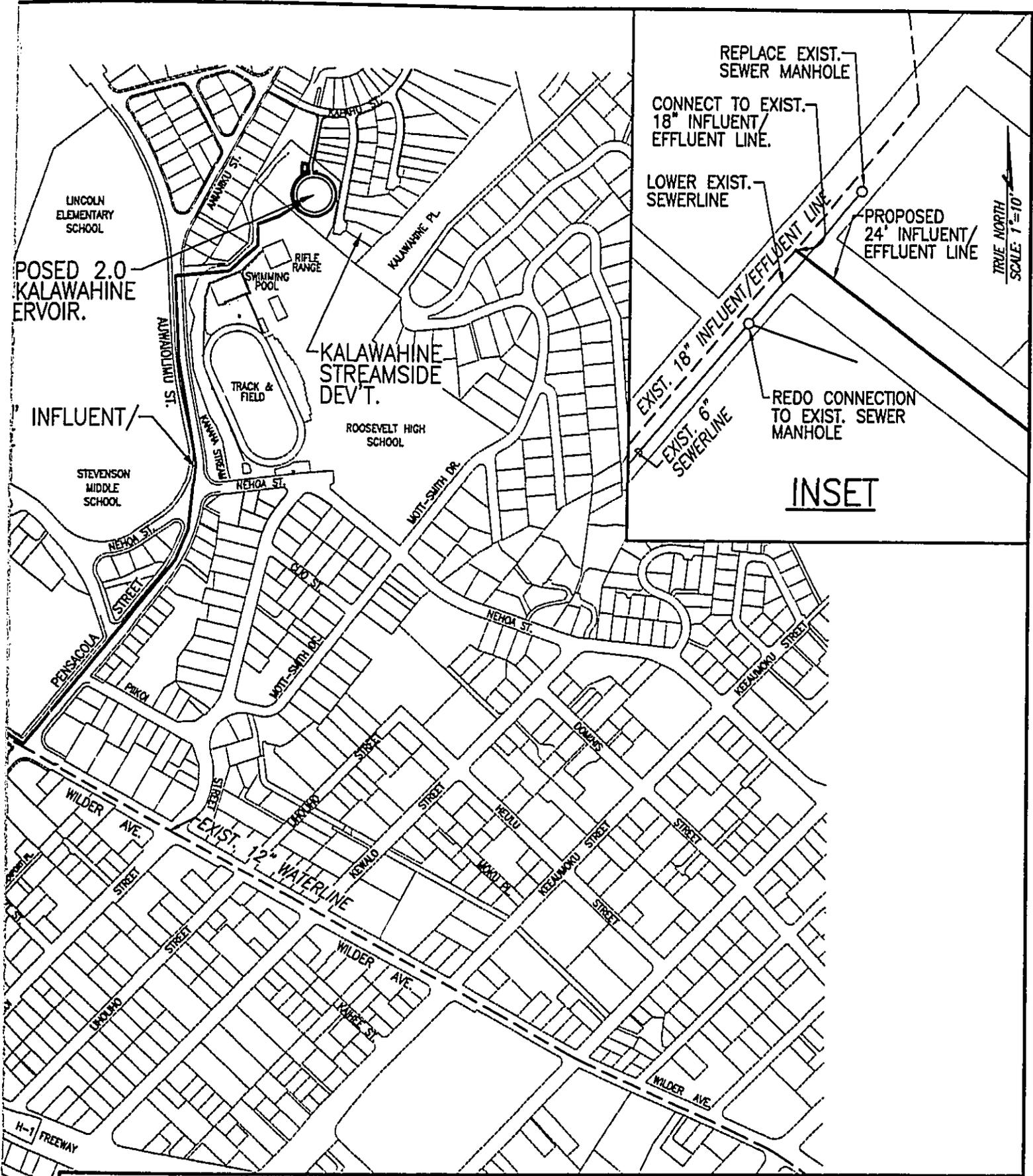
**Shimabukuro, Endo
 & Yoshizaki, Inc.**
 Civil & Structural Engineers

FIGURE
2-5

TRUE NORTH
SCALE: 1"=500'



SOURCE: FIGURE 9 OF KALAWAHINE 180' RESERVOIR SITE FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.



PREPARED FOR:
HONOLULU BOARD OF WATER SUPPLY

KALAWAHINE 180 RESERVOIR
 HONOLULU, OAHU, HAWAII
24" INFLUENT/EFFLUENT LINE

JEN ENGINEERS
Shimabukuro, Endo & Yoshizaki, Inc.
 Civil & Structural Engineers

FIGURE
2-6

2.2 Purpose of and Need for Action

The purpose of the proposed action is to alleviate the existing potable water storage deficit in the Metro Low West (180') potable water system service area (below the 180' elevation from Salt Lake to Diamond Head in Honolulu). The current deficit for water storage in Honolulu is 55 MG (Kwock & Associates, 1999). Additional 2.0 MG storage will improve water system performance and reliability in meeting domestic fire protection needs as well as provide greater flexibility of the water system in emergency situations.

2.3 Socio-Economic Characteristics

The preliminary estimated construction cost of the 2.0 MG Kalawahine Reservoir and 24-inch influent/effluent line project is about \$7,104,000. See Appendix A. The labor costs associated with a reservoir and waterline project of this magnitude will provide a positive economic impact on the construction industry. The improvement of water system performance and reliability in meeting domestic and fire protection needs of business and residential communities in the Metro Low West (180') service area due to the additional 2.0 MG storage of water will be the primary long-term positive socio-economic impact of this project.

Short-term negative impacts will be experienced by residents adjacent to the reservoir site and the influent/effluent line during the project construction and are discussed in the following Chapter III. Motorists traveling on Auwaiolimu and Pensacola Streets, Wilder and Thurston Avenues, and Green and Alapai Streets will be rerouted around the work areas. There will be no long-term adverse impacts due to the project.

2.4 Environmental Characteristics

Temporary disruptions to the environment will occur due to construction activities such as grading of the reservoir site and trenching for the influent/effluent line. Traffic will be impacted by lane closures and detours. Operation of construction equipment will temporarily affect dust, noise and exhaust emission levels. Work across Roosevelt High School and Auwaiolimu Street will be coordinated with the Lincoln Elementary School, Stevenson Middle School and Roosevelt High School administrations. Work within City streets will be performed during normal working hours between 8:30 a.m. and 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services. Environmental impacts caused by the project will be mitigated by complying with applicable City, State and Federal standards, guidelines and permit requirements. See Chapter IV. In addition, the contractor will be required to employ safety measures to protect the public, especially children, from the construction activity and to properly secure construction areas during non-working hours.

2.5 Project Schedule and Funding Source

Reservoir and waterline construction is expected to begin in the year 2004 and last approximately 17 months. The estimated construction cost of \$7,104,000 will be funded by the BWS. The BWS is a semi-autonomous agency of the City and County of Honolulu.

CHAPTER III
DESCRIPTION OF THE AFFECTED ENVIRONMENT AND
POTENTIAL IMPACTS AND MITIGATION MEASURES

3.1 Project Location

The reservoir site is located just north of Roosevelt High School's Rifle Range in Papakolea. Kanaha Stream runs along the west boundary of the site and the Kalawahine Streamside Development flanks the reservoir to the east and north. See Figure 2-3. The site was cleared for the Kalawahine Streamside Development and is currently vacant with light vegetative cover consisting mainly of California grass and koa haole.

The proposed 24-inch influent/effluent line is located inside the western property line of Roosevelt High School and in the City and County of Honolulu road rights-of way of Auwaiolimu and Pensacola Streets, Wilder and Thurston Avenues, and Green and Alapai Streets. See Figure 2-6.

3.2 Land Ownership

The reservoir site resides on Tax Map Key (TMK) 2-4-43:82 and is owned by the BWS. The 1.5 acres parcel is shown in Figure 2-3. BWS is in the process of obtaining a 25-foot wide roadway easement from Kapahu Street to the reservoir site on portion of TMK 2-4-43:90 from DHHL for an access road and electric and telephone lines to the site. Thus, no land acquisition is required for the reservoir site.

The proposed 24-inch influent/effluent line will be located inside the western property line of Roosevelt High School designated by TMK 2-4-32:01, in State property designated by TMK 2-4-32:02 and in City road rights-of-way designated by TMKs 2-4-32, 30, 18, 17 and 14 and 2-1-39. Easements must be obtained from the Department of Education (DOE) and the Department of Land and Natural Resources (DLNR) for the waterline in Roosevelt High School (TMK 2-4-32:01) and the adjacent parcel (TMK 2-4-32:02). Approval must be obtained from the City for locating the waterline in City road rights-of-way.

3.3 State and County Land Use Designation/Development Plan

The reservoir lot is zoned as Urban by the State and General Preservation P-2 by the City and County of Honolulu. See Figures 3-1 and 3-2. These designations are consistent with the intended use of the reservoir lot. Type A utility installations, including water tanks, are permitted in P-2 Zones. Public Use and Utility Waivers from the Department of Planning and Permitting (DPP) will be required to construct reservoir structures if they are more than 25-feet in height.

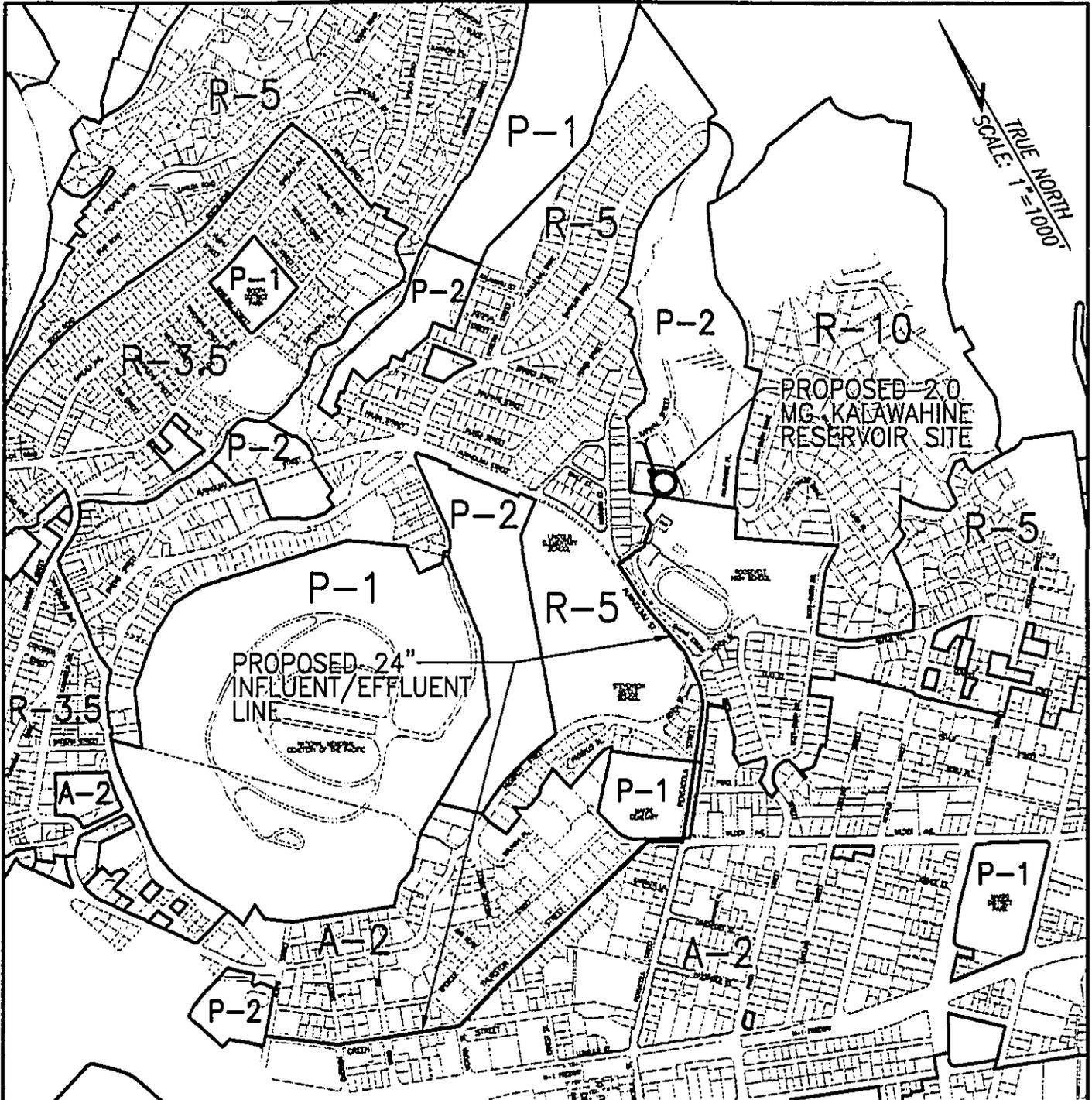


LEGEND:

- U** Urban
- C** Conservation

SOURCE: State Land Use Commission
Land Use District Map 0-13

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII STATE LAND USE DISTRICT	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 3-1
--	---	--	---------------------------------



TRUE NORTH
SCALE: 1"=1000'

LEGEND:

RESIDENTIAL ZONES

- R-10 Residential
- R-3.5 Residential
- R-5 Residential

PRESERVATION ZONES

- P-1 Restricted
- P-2 General

APARTMENT ZONES

- A-2 Medium Density Apartments

CITY ZONING MAP

SCALE: 1"=800'

SOURCE: DEPARTMENT OF PLANNING AND PERMITTING CITY & COUNTY OF HONOLULU

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII CITY ZONING MAP	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 3-2
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The reservoir lot is designated as Preservation on City Primary Urban Center Development Plan Land Use Map. See Figure 3-3. A Development Plan Public Facility Map amendment must be approved by the City Council.

The reservoir lot resides in the Punchbowl Special District, but outside of the District's core area. See Figure 3-4. A Special District Permit (Minor) and Waiver from the City DPP will be required to construct the reservoir in this district which has a zero-foot height limit. The primary concern is to preserve the views of Punchbowl and the serenity of its natural beauty.

The influent/effluent line is located inside the western portion of Roosevelt High School zoned as Urban by the State and Residential R-5 by the City. See Figures 3-1 and 3-2. Beyond Roosevelt High School the waterline is located in City and County road rights-of-way. The location across a portion of school property and in City rights-of-way corridors for public utilities is consistent with accepted practice. The portion of the waterline in Auwaiolimu Street is within the Punchbowl Special District's core area and a Special District Permit (Minor) from City DPP will be required.

3.4 Surrounding Land Use

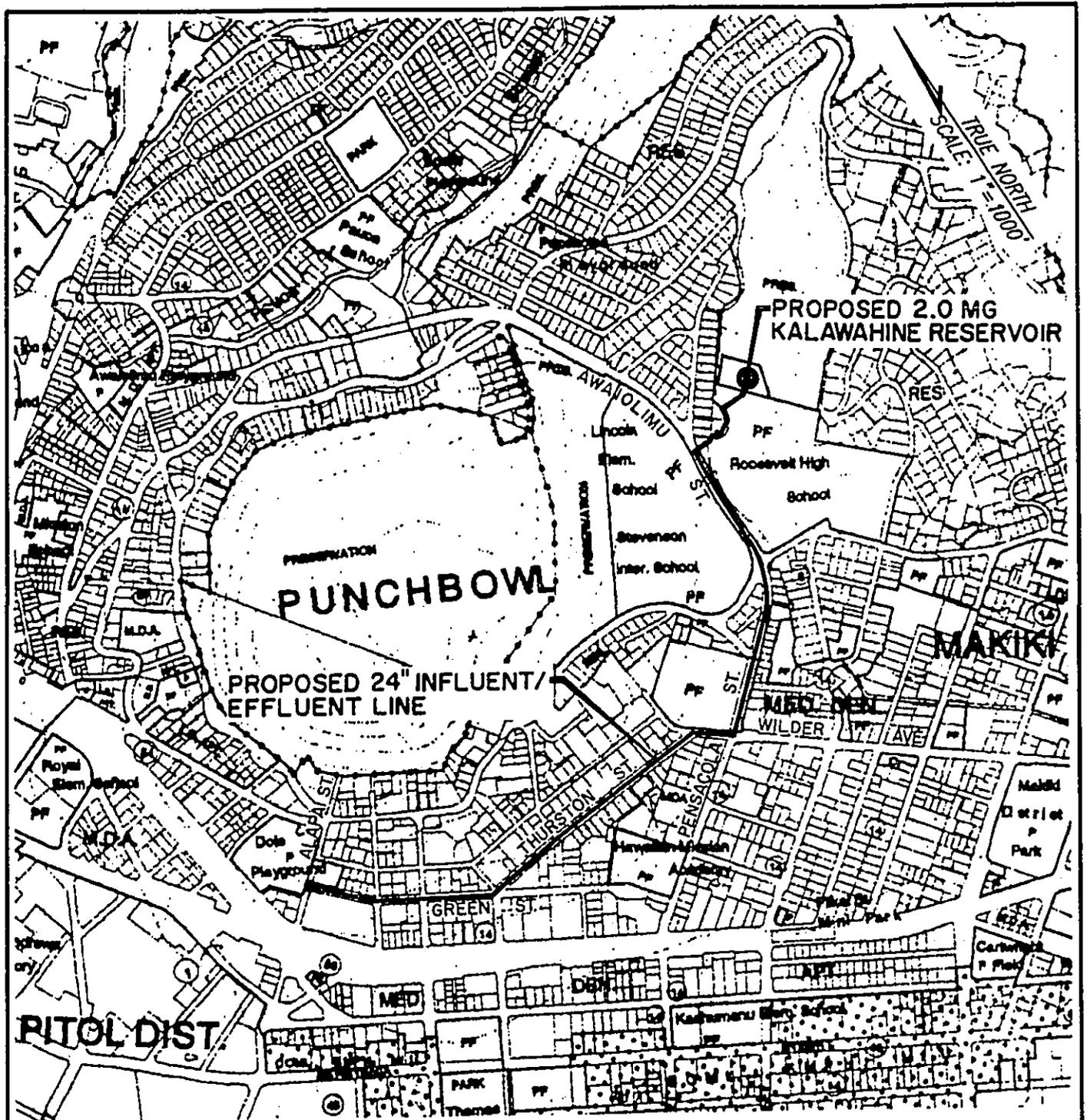
The reservoir site is located in urban Honolulu adjacent to the residential communities of Papakolea and Kalawahine Streamside Development. Makiki and Pauoa are neighboring communities. Roosevelt High School is to the south and Lincoln Elementary School and Stevenson Middle School are within a quarter mile of the site. The influent/effluent line will reside in the roadways of Papakolea, Makiki, and Punchbowl. Most of the land uses in these communities are residential with apartments and public facilities.

There will be no long-term interference with any existing land uses of surrounding properties. During construction of the reservoir and waterlines, vehicular access to adjoining roadways and driveways will be occasionally disrupted by trenching, paving, construction materials and transportation of supplies and equipment.

3.5 Topography and Soils

The reservoir site is located on the east slope of the ravine formed by Kanaha Stream. Ground elevations range between 135 to 200 feet above mean sea level (MSL). The ground slopes upward from the west to the east direction, with ground slopes ranging between 5 to 35 percent, and from the south (makai) to the north (mauka) direction. The Kalawahine Streamside Development has constructed fill slopes into the east and north portions of the reservoir site and a stormwater ponding basin on the southwest portion of the reservoir site. See Figure 3-5.

The influent/effluent waterline is located on the southern slopes of Tantalus and along the eastern and southern slopes of Punchbowl Crater. Ground elevations range between 80 to 135 feet above MSL. Ground slopes range between 8 to 40 percent.



LEGEND:

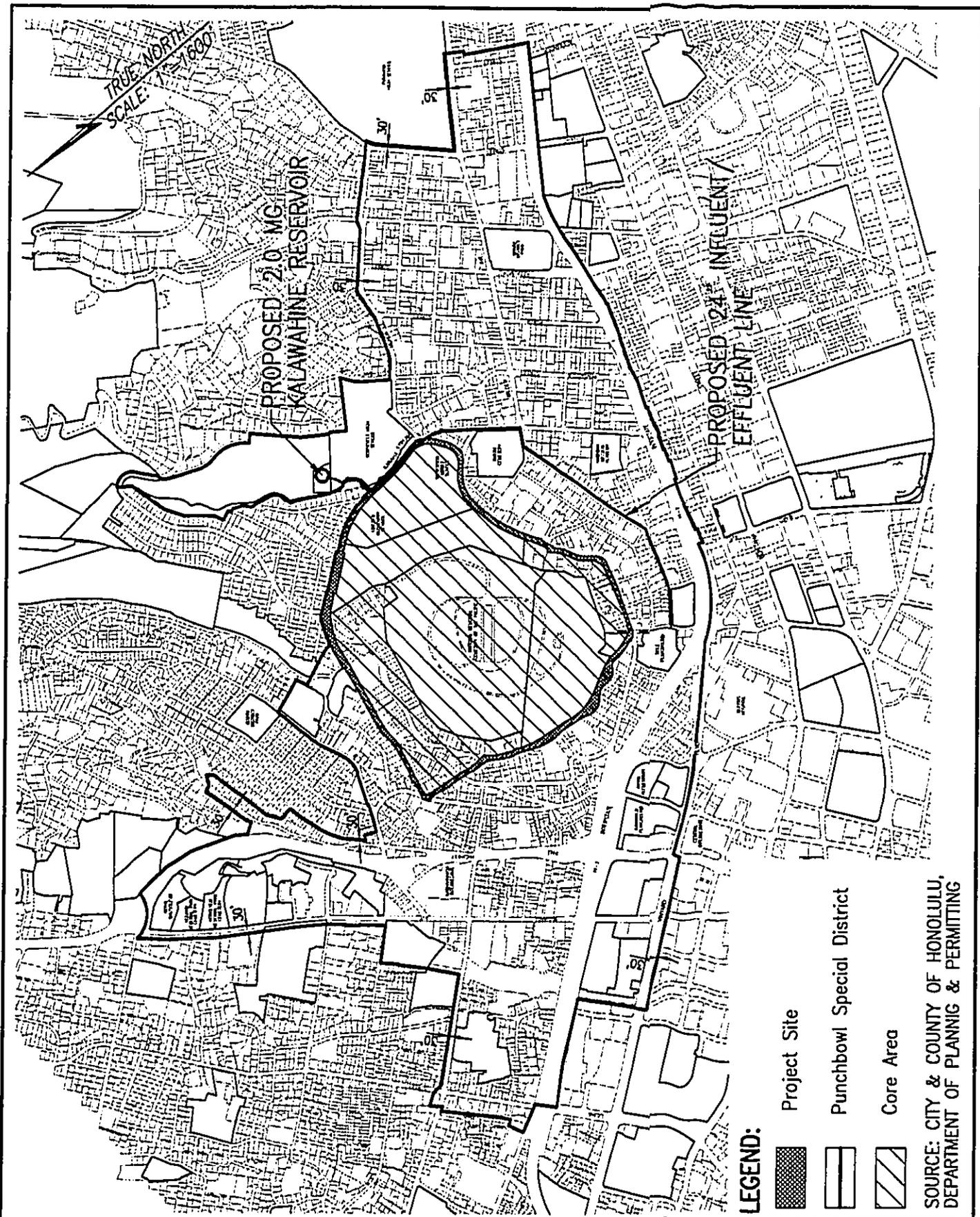
- DP Lines
- State Land Use Boundary Line
- DP Boundary Line

ABBREVIATIONS:

- LD Apt. Low-Density-Apartment
- MD Apt. Medium-Density-Apartment
- P Parks And Recreation
- PF Public Facilities
- Pres. Preservation
- Res. Residential

SOURCE: DEPARTMENT OF PLANNING & PERMITTING, CITY & COUNTY OF HONOLULU

<p>PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY</p>	<p>KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII PRIMARY URBAN CENTER DEVELOPMENT PLAN LAND USE</p>	 <p>Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers</p>	<p>FIGURE 3-3</p>
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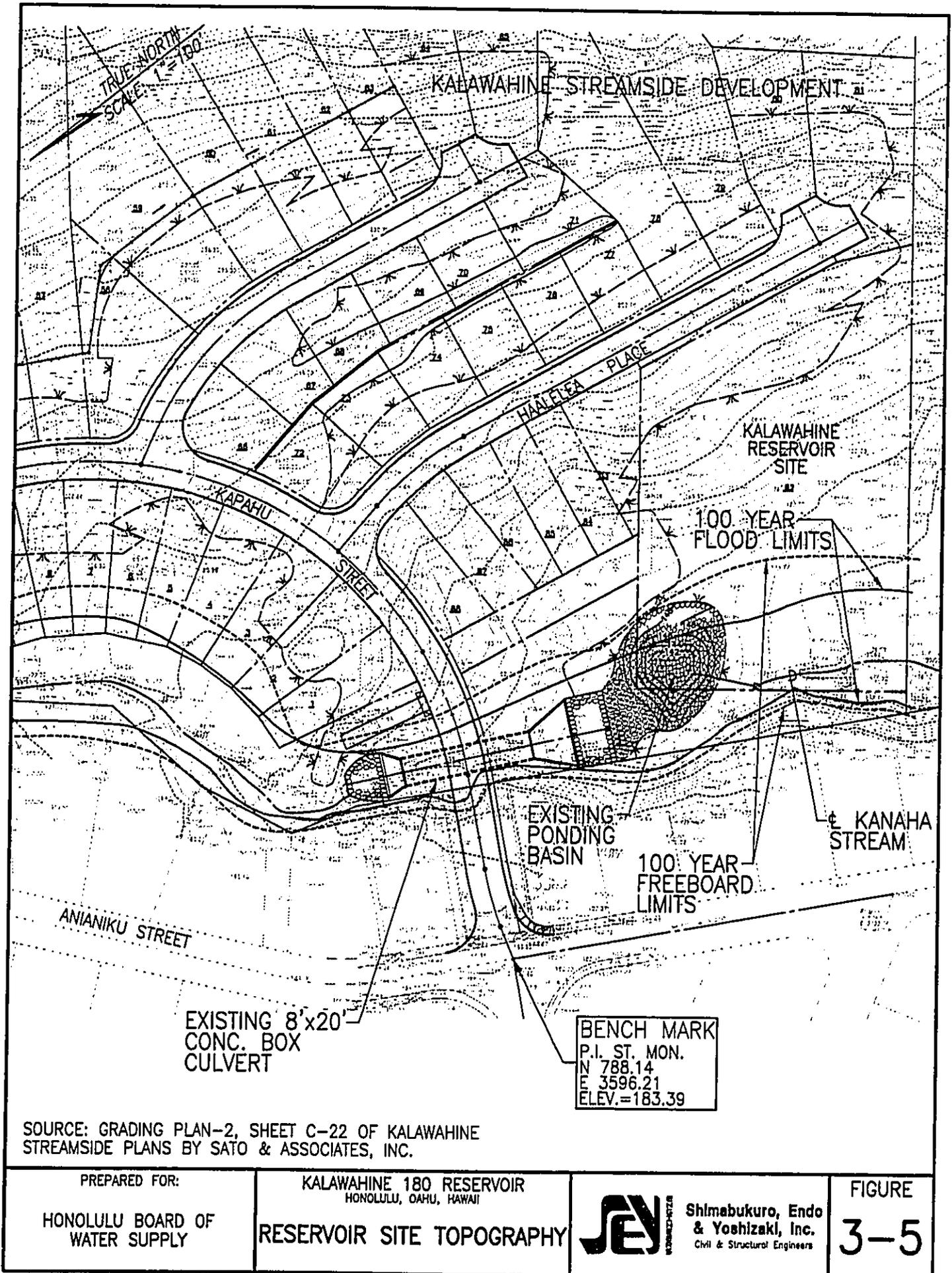


PREPARED FOR:
HONOLULU BOARD OF
WATER SUPPLY

KALAWAHINE 180 RESERVOIR
HONOLULU, OAHU, HAWAII
PUNCHBOWL SPECIAL
DISTRICT

SEV Shimabukuro, Endo
& Yoshizaki, Inc.
Civil & Structural Engineers

FIGURE
3-4



The Soil Survey of Island of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (U.S. Department of Agriculture Soil Conservation Service, 1972) identified the soils in the project site as Tantalus silty clay loam (TCC and TCE) and fill land (FL). TCC and TCE soils are derived from volcanic ash and materials weathered from cinders. FL consists of areas filled with materials from excavation of adjacent lands. See Figure 3-6.

A geotechnical investigation of the reservoir site was conducted and reported in Soil Feasibility Study, Kalawahine 180' Reservoir, Papakolea, Oahu, Hawaii TMK:2-4-34:8 (Ernest K. Hirata & Associates, Inc., 1999). Three exploratory soil borings were drilled to depths of 39', 49' and 54' laterally across the reservoir site from the west to east direction. The borings indicated the surface soils consist of silty clay (weathered cinders) with boulders. These soils extend from the ground surface to depths ranging from 25 to 38 feet below existing ground. Medium hard to hard basalt were encountered below the silty clay.

The geotechnical investigation concluded that the project site is feasible for the reservoir. However, the use of conventional shallow foundations would result in excessive differential settlement in the lower sections of the site due to the amount of fill placement. The use of drilled shaft foundations for support of the reservoir was recommended in lieu of shallow foundations.

Mass excavations of the surface silty clay, sandy silt and volcanic cinder at the reservoir site can be accomplished using conventional earth moving equipment. However, excavations into the medium hard to hard basalt may require pneumatic equipment. Fill and cut slopes exposing the surface silty clay and sandy silt should be stable at gradients of 2:1 or flatter. Cut slopes exposing volcanic cinder should be stable at gradients of 3:1 or flatter. Retaining walls will be constructed along the entire periphery of the reservoir to limit the amount of earth moving activities.

The influent/effluent line will be constructed in volcanic ash and weathered cinder material. Construction of the waterline will have little effect on the existing soils and topography since trenching will be minimal and will be backfilled.

Grading operations of the reservoir site will change the existing ground slope and impact on the existing topography. The impact will be mitigated by grading the site in compliance with dust and erosion control requirements of the City and County of Honolulu Grading, Soil Erosion and Sediment Control Ordinance and the provisions of Chapter 11-60-1, Hawaii Administrative Rules, Section 11-60.1-33 on fugitive dust. Best Management Practices to mitigate erosion and pollution caused by discharge of stormwater runoff from the site grading operations will include the use of desilting basins, silt fences and other erosion and pollution control measures.

3.6 Climate and Air Quality

The climate of urban Honolulu is characterized by the persistence of trade winds, a strong gradient of increasing rainfall from the coast to the mountains, and a concomitant gradient from sunny coastal areas to persistent cloudiness over nearby mountain crests and the infrequency of severe storms. Northeasterly trade winds prevail throughout the year, although their average frequency varies from more than 90 percent during the summer to only 50 percent in January.

Temperatures are equable from day to day and season to season, ranging from 65°F to 88°F, and averaging about 75°F. Annual rainfall averages about 24 inches. Heavy rains occur mainly between November through April.

Air quality is generally good due to the effects of the tradewinds and the lack of stationary sources of pollutants. During the periods of light or calm winds, however, "hot spots" where air pollutants exceed short-term standards can occur in areas of traffic congestion. Such areas do not exist along the project site.

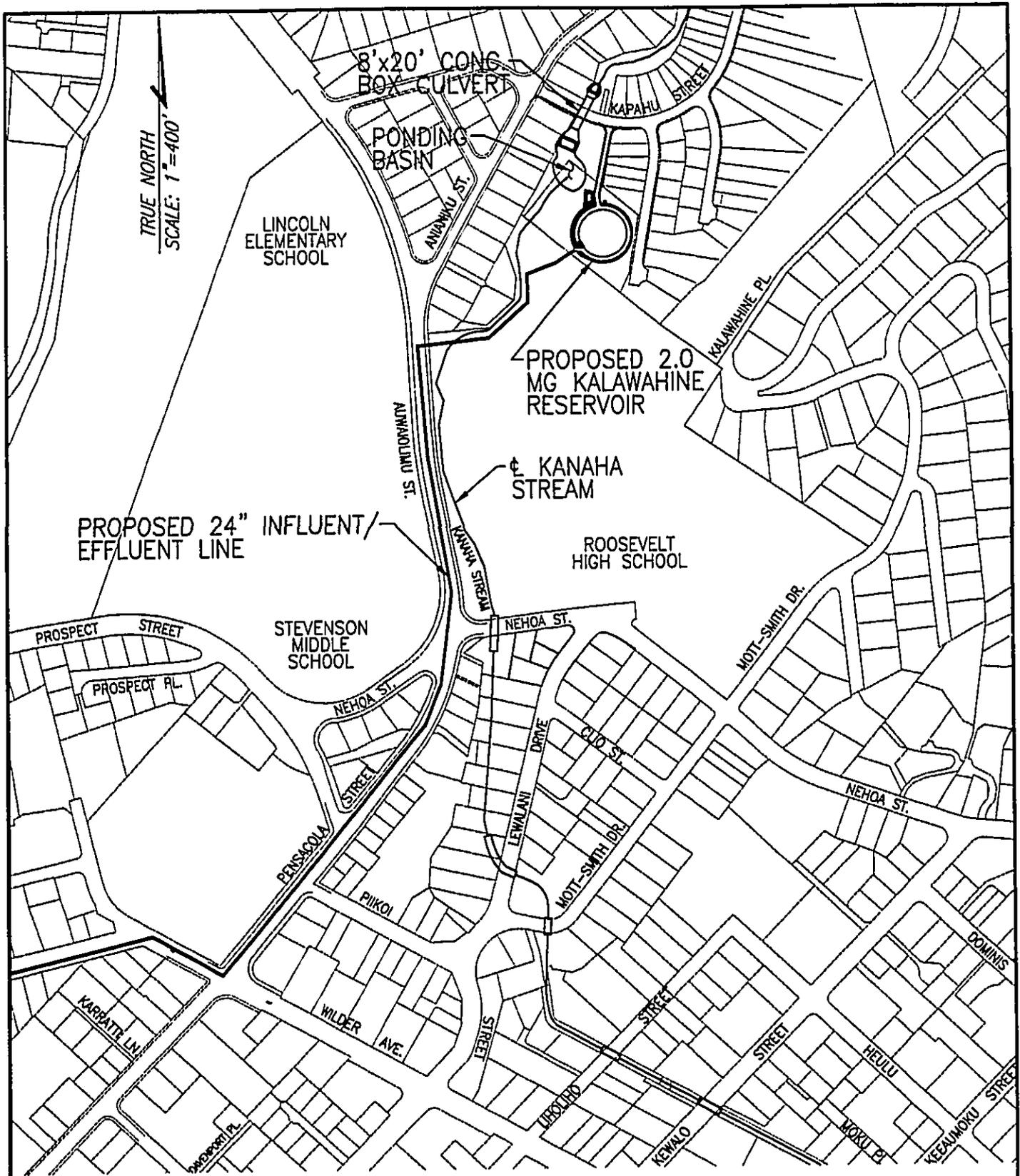
Exhaust transmission during construction would be generated from vehicles and construction equipment. Fugitive dust will be generated during trenching activities and by vehicular traffic.

Impacts due to exhaust emissions will be minimized by keeping all equipment properly tuned and maintained, as well as by minimizing unnecessary idle time. The contractor will be required to comply with Hawaii Administrative Rules (HAR) Title 11 Department of Health (DOH) Chapter 60.1 Air Pollution Control which contains restrictions on visible emissions from motor vehicles and fugitive dust generations.

To reduce fugitive dust emissions, graded areas and exposed surfaces will be kept well watered whenever feasible. Wet cutting or dry cutting with other dust control measures will be used for existing asphaltic concrete pavement removal along the waterline route in City streets.

3.7 Drainage and Kanaha Stream

Kanaha Stream runs along the west boundary of the reservoir site. See Figure 3-7. The stream is normally dry and has intermittent flows only during periods of substantial rainfall. The channel and banks of the stream are covered with vegetation consisting of shrubs and trees. The site is in Zone X (outside of 500-year flood plain) on the Flood Insurance Rate Map (FIRM Panel 120). A few properties on the west bank opposite of the reservoir site have reported erosion problems along their properties adjacent to Kanaha Stream. An 8' x 20' box culvert was constructed across Kapahu Street by the Kalawahine Streamside Development and conveys Kanaha Stream storm runoff downstream to a ponding basin prior to its return to the stream. The ponding basin is located partially on the reservoir site. See Figure 3-5. The basin is maintained by Kalawahine Streamside Association.



KANAHA STREAM MAP

SCALE: 1"=400'

<p>PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY</p>	<p>KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII KANAHA STREAM MAP</p>	<p>JEN Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers</p>	<p>FIGURE 3-7</p>
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Drainage Report for Kalawahine 180' Reservoir (Mitsunaga & Associates, 1999) for the Reservoir Site Feasibility Study determined the 100-year flood limits for Kanaha Stream. Figures 2-3 shows the flood limits at the reservoir site with and without freeboard. The report concluded that the proposed reservoir will have no impact on the 100-year flood limits of Kanaha Stream.

Mitsunaga & Associates (1999) also investigated the increase in peak discharge and runoff volume caused by improvements to the reservoir site for a 10-year flood event. The peak discharge was predicted to increase by 1.83 cubic feet per second and runoff volume was predicted to increase by 550 cubic feet (CF).

To mitigate any potential damages to BWS facilities due to flooding, all structures at the reservoir site will be built above the 100-year flood limits with freeboard. No improvements will be constructed within the flood limits. A detention basin is proposed to be constructed near the entrance to the reservoir site to detain and reduce the additional 550 CF peak storm runoff created by the reservoir improvements (Mitsunaga and Associates, 2000). The basin will have low and high flow outlet pipes that will discharge to Kanaha Stream. Thus, no increase in peak discharge will result from a 10-year flood.

The discharges of stormwater associated with construction activity and of hydrotesting waters will comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit. Construction dewatering is not anticipated for the proposed project; however, if it is determined by the design engineer that groundwater will be encountered during construction, an NPDES permit for dewatering effluent will be obtained. Notices of Intent for NPDES permit will be submitted at least 30 day prior to the discharge occurrence. During construction, the contractor will also adhere to requirements of the City's Grading, and Soil Erosion and Sediment Control Ordinance. Desilting basins, silt fences, and other erosion control measures shall be used by the contractor to contain sediment from entering Kanaha Stream. The NPDES permits will be obtained by the contractor from DOH prior to construction. Thus, the reservoir will have no impact on existing downstream Kanaha Stream and drainage improvements.

The project will be designed to meet the drainage standards of the City and County of Honolulu, DPP. A drainage study may be conducted during the design of the proposed action. This study may also include a flood analysis of the area. Necessary drainage improvements will be implemented to meet drainage standards.

The 24-inch influent/effluent line will be located inside the western property line of Roosevelt High School, will cross Kanaha Stream to Auwaiolimu Street and will be in the City road rights-of-way along Auwaiolimu and Pensacola Streets, Wilder and Thurston Avenues, and Green and Alapai Streets. Trenching across the normally dry Kanaha Stream, for installation of the waterline will not require a Department of Army (DA) permit nor authorization under the U.S. Corps of Engineer's General or Nationwide permits. The DLNR Commission on Water Resource Management has also determined that a Stream Channel Alteration Permit is not necessary for the project. See Appendix B. Short term drainage impacts may occur during construction of the crossing at Kanaha Stream and the City road rights-of-way. In the City road rights-of-way, the existing stormwater runoff patterns and collection/conveying systems will be maintained during the waterline construction.

In order to isolate and confine construction activities during trenching across Kanaha Stream and to prevent potential pollutants and debris from entering State waters, the following best management practices and monitoring plan and assessment plan will be implemented:

(1) Construction Sequence

- a. Construction of the waterline stream crossing will be done during dry weather when there is no stream flow. The contractor will be required to temporarily suspend work during periods of heavy rain.
- b. All debris and unsuitable excavated materials shall be properly removed from the stream bed and disposed of at BWS-approved sites. Stockpiling, storing, or placement of construction material or construction-related materials shall not be permitted in the stream bed.

(2) Characteristics of the Discharge and Potential Pollutants

- a. Permanently placed materials will include concrete, ductile iron pipe, bedding material, and compacted backfill.
- b. Temporarily placed materials will include cement, form material, sand bags, and coarse gravel.
- c. Material that may enter State waters due to the proposed activity includes discharges from trenching activity, bedding materials, soil erosion, construction debris, runoff from excessive construction dust control process, and removed vegetation and soil attached to the roots.
- d. Discharges associated with the operation of construction equipment and vehicles involved may include fuel, lubricants, oil, and other engine-related fluids.

(3) Proposed Control Measures or Treatments

- a. All loose material and small tools and equipment will be removed from the construction site after each work day is completed.
- b. BWS-approved area away from the stream bed to store or stockpile construction related materials and equipment will be designated prior to the start of construction.
- c. Equipment shall be inspected daily to ensure that oil leaks do not occur. Equipment shall be stored upland away from the stream bed. Fuel and lubricating of equipment and motor vehicles will be conducted away from the stream bed and in a manner to protect against spills and evaporation.

Lubricants and excess oils will be disposed of in accordance with applicable federal, state, and local regulations.

- d. Construction will be permitted only during dry periods and shall be temporarily suspended during periods of heavy rainfall.

(4) Monitoring Program

Kanaha Stream is classified as an intermittent stream on the USGS quad map and is dry except for periods of consistent rainfall. Construction of the waterline crossing at the stream is expected to take one to two weeks. Therefore, the monitoring program will consist of visual inspections and photographic record by the contractor during the construction period as described below.

- a. Photographs with imprinted dates will be taken at the following intervals: (1) Preconstruction photographs will be taken one month prior to the start of construction; (2) Photographs will be taken daily during the construction period; and (3) Post-construction photographs will be taken not more than one month following the installation of the waterline crossing.
- b. Photographs will be taken at the following locations: (1) upstream of the proposed crossing; (2) at the stream bed of the proposed crossing; and (3) downstream of the proposed crossing. Upstream and downstream locations shall not be more than 1,000 feet from the proposed crossing.

3.8 Flora, Fauna and Significant Habitats

The reservoir and influent/effluent lines are located within urbanized residential areas of Honolulu and in City road rights-of-way. Botanical Resources Assessment, Kalawahine 180' Reservoir Site (Char & Associates, 1999) for the Reservoir Site Feasibility Study determined that at the reservoir site, the vegetation is composed entirely of introduced plant species (grasses, shrubs and trees). No native plants occur on the site. No threatened and endangered species or species of concern occur on the site. This is not surprising as most of the original vegetation in the lowland zones in the Hawaiian Islands has been radically altered by human occupation and the introduction of alien plants and animals, especially on the island of Oahu. The proposed reservoir is not expected to have a significant adverse impact on the botanical resources.

The introduced grasses, shrubs, and trees which prevail in the area provide some degree of habitat for the typical array of exotic birds and mammals that one would expect at this lowland zone on the Leeward slopes of Honolulu and in this type of environment throughout the island. The Kalawahine 180' Reservoir Site Wildlife Survey (Ohashi, 1999) for the Reservoir Site Feasibility Study determined that no native birds, the bat or habitat were found on site. The proposed reservoir will have no adverse impact on any native wildlife species or their habitat.

The City road rights-of-way roadside are landscaped with grasses and trees found typically in residential areas of Oahu. No candidate, endangered or threatened plant or animal species are known to exist along the roadside or use the roadside as habitat. Although portions of the sidewalk area may be used by the contractor for work-related activities, such as equipment and materials storage, etc., the impact caused by construction related activities on flora and fauna will be minimal. No existing plants will be removed and any plants, grassed area and surface improvement damaged by construction will be restored by the contractor to the original or better condition. The proposed construction of the reservoir and waterline is not expected to have significant impact on flora and fauna resources and on any native habitat.

3.9 Archaeological, Historical and Cultural Sites

Archaeological Inventory Survey of the Kalawahine Reservoir Site (Cultural Surveys Hawaii, 1999) for the Reservoir Site Feasibility Study indicated there are no known significant archaeological sites at the proposed reservoir site. Although not specifically designed to evaluate cultural practices such as Native Hawaiian gathering rights, this archaeological inventory investigation found no indications of ongoing Native Hawaiian gathering practices within the project site (M. McDermott, personal communication, December 18, 2000). It is also believed that there are no known significant historical sites at the proposed reservoir site and along the proposed influent/effluent waterline route located inside the western portion of Roosevelt High School, across Kanaha Stream and in City road rights-of-way where the topography has already been disturbed by construction of the existing road improvements (SHPD, 2000).

If significant sites including human burials are uncovered during construction, the contractor will be required to stop work and contact the State Historic Preservation Division (SHPD) of the DLNR at 692-8015. A qualified archaeologist and a Hawaiian cultural expert recognized within the Hawaiian community for his/her cultural expertise shall be retained by the contractor to determine if any historic sites are present. If historic sites are found, the archaeologist and the Hawaiian cultural expert shall gather significant information to evaluate their significance and submit the findings to the SHPD. If burial remains are found, the O'ahu Island Burial Council at DLNR will be contacted. A mitigation plan will be developed, if required, and approved by the SHPD prior to continuing with construction activities.

3.10 Utilities

Both above ground and buried existing utility installations should not be adversely affected by the proposed work, except at the 24-inch influent/effluent line connection to the existing Punchbowl 180' Reservoir 18-inch influent/effluent line in Alapai Street. See Figure 2-5. An existing 6-inch sewer line in Alapai Street will require adjustment to allow the 24-inch line to be connected to the existing 18-inch line.

Coordination with all utilities (electrical, water, sewer, telephone, cable TV, and gas) will be performed during engineering design. Construction plans will be submitted to the City and utility companies for review.

During the construction phase, the contractor will be required to verify utility locations, protect utilities during construction and coordinate any temporary displacement required for his convenience during construction so as to ensure no interruption of utility services. In addition, fire apparatus access will be maintained throughout the construction site for the duration of the project. The contractor will also be required to notify the Fire Communication Center (phone 523-4411) should there be any interruptions in the existing fire hydrant system during construction.

3.11 Noise

The operation of construction equipment such as backhoes, trucks, compactors, and pavers will raise ambient noise levels in the project's vicinity. Noise from these equipment has been measured at levels ranging from 70 to 90 dBA (at 50 feet). Noise impacts may have direct and indirect effects on the residential units adjacent to the reservoir site, along the waterline route, and the nearby Roosevelt High School, Stevenson Middle School and Lincoln Elementary School. Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air will be equipped with mufflers.

Along the residential areas, the allowable noise level is 55 DBA at the property line during the day (7 a.m. to 10 p.m.) and 45 dBA at night (10 p.m. to 7 a.m.). Since noise levels will exceed the allowable levels for more than 10 percent of the time within any twenty-minute period, a Community Noise Permit will be required for construction activities from DOH in accordance with the HAR Title 11 DOH Chapter 46 Community Noise Control. Required permit conditions for construction activities which the contractor must comply with include the following:

- (1) *No permit shall allow any construction activities creating excessive noise when measured at or beyond the property line of the construction site for the hours before 7:00 a.m. and after 6:00 p.m. on weekdays.*
- (2) *No permit shall allow construction activities creating excessive noise when measured at or beyond the property line of the construction site for the hours before 9:00 a.m. and after 6:00 p.m. on Saturdays.*
- (3) *No permit shall allow construction activities which exceed the allowable noise levels on Sundays and holidays.*

The above conditions shall be enforced and violators penalized by the Director of DOH. Nighttime work will not be permitted for the project.

3.12 Traffic

Construction of the proposed project will cause periodic disruptions to normal traffic flow along Anianiku, Kapahu, Auwaiolimu, and Pensacola Streets, Wilder and Thurston Avenues, and Green and Alapai Streets. Construction vehicles will add to the traffic on streets adjacent to the proposed project. The contractor will be required to contact Major Michael Tucker of the Police Department District 1 to coordinate all work at the reservoir site and along the affected roadways.

The 24-inch influent/effluent line construction will likely require daily closures of two lanes along portions of Auwaiolimu and Pensacola Streets, Wilder and Thurston Avenues, and Green and Alapai Streets. Vehicular and pedestrian traffic to and from Lincoln Elementary School, Stevenson Middle School and Roosevelt High School will be impacted by the closure of two lanes of Auwaiolimu and Pensacola Streets during the day. The greatest traffic impact will be one block along Green Street from Emerson Street to Alapai Street. Unlike the other streets, this portion of Green Street is only two lanes wide and during construction closure of this section of Green Street to vehicular traffic may be required. This portion of Green Street has residences or apartments on both sides of the roadway.

Traffic management and control plans will be prepared during the construction phase of this project by the contractor to minimize disruptions and inconveniences to the residents and the public. The plans will be prepared by a licensed civil engineer qualified to prepare traffic management and control plans and shall be submitted to DPP Traffic Review Branch for review and approval.

In addition, the contractor will be required to obtain a Street Usage Permit from DTS prior to commencement of any work that will temporarily obstruct any portion of the City roadway or sidewalk and comply with its requirements. Continuous access to and from all driveways and public streets shall be maintained. All walkways and intersections shall be maintained in passable condition for pedestrian traffic. On-street parking of construction equipment will be limited, especially in residential areas. Appropriate signs and barriers will be required, and generally at least two lanes will remain open during normal working hours (8:30 a.m. to 3:30 p.m.) Construction including the movement of large construction vehicles during peak traffic hours and at night will be avoided. After working hours trenches will be covered with a non-skid bridging material and all lanes will be open to traffic. Off-duty police officers and/or trained construction flagmen will be provided for traffic control to improve traffic flow and to control two-way traffic on streets where only one lane is opened during construction.

The contractor will be required to coordinate work during construction with the Lincoln Elementary School, Stevenson Middle School and Roosevelt High School administrations. At least two weeks prior to the start of construction, the contractor will notify all affected residents adjacent to the reservoir site and along the waterline route, the DOE, administrations of Lincoln Elementary School, Stevenson Middle School and Roosevelt High School, the Makiki and Nuuanu Punchbowl Neighborhood Boards, the Kalawahine Streamside Association, the Papakolea Community Association, emergency services (fire, police and ambulance), the general public, and DTS. The notification shall include the

nature of the work, construction schedule, of lane and street closures or detours, suggested alternate routes, the expected length of time of inconveniences, of any restrictions which may be imposed to complete the work and the contractor's phone number to be called to report traffic concerns.

3.13 Visual Impacts

The existing reservoir site will be graded due to the existing slope of the site. The reservoir will be in both cut and fill. A tie-back (earth anchor system) retaining wall will be constructed between the upper eastern side of the reservoir and Haalelea Place of the Kalawahine Streamside Development. See Figure 2-4. Height of wall will vary from 7 feet to 40 feet. There will be no adverse impact to Haalelea Place adjacent to this retaining wall.

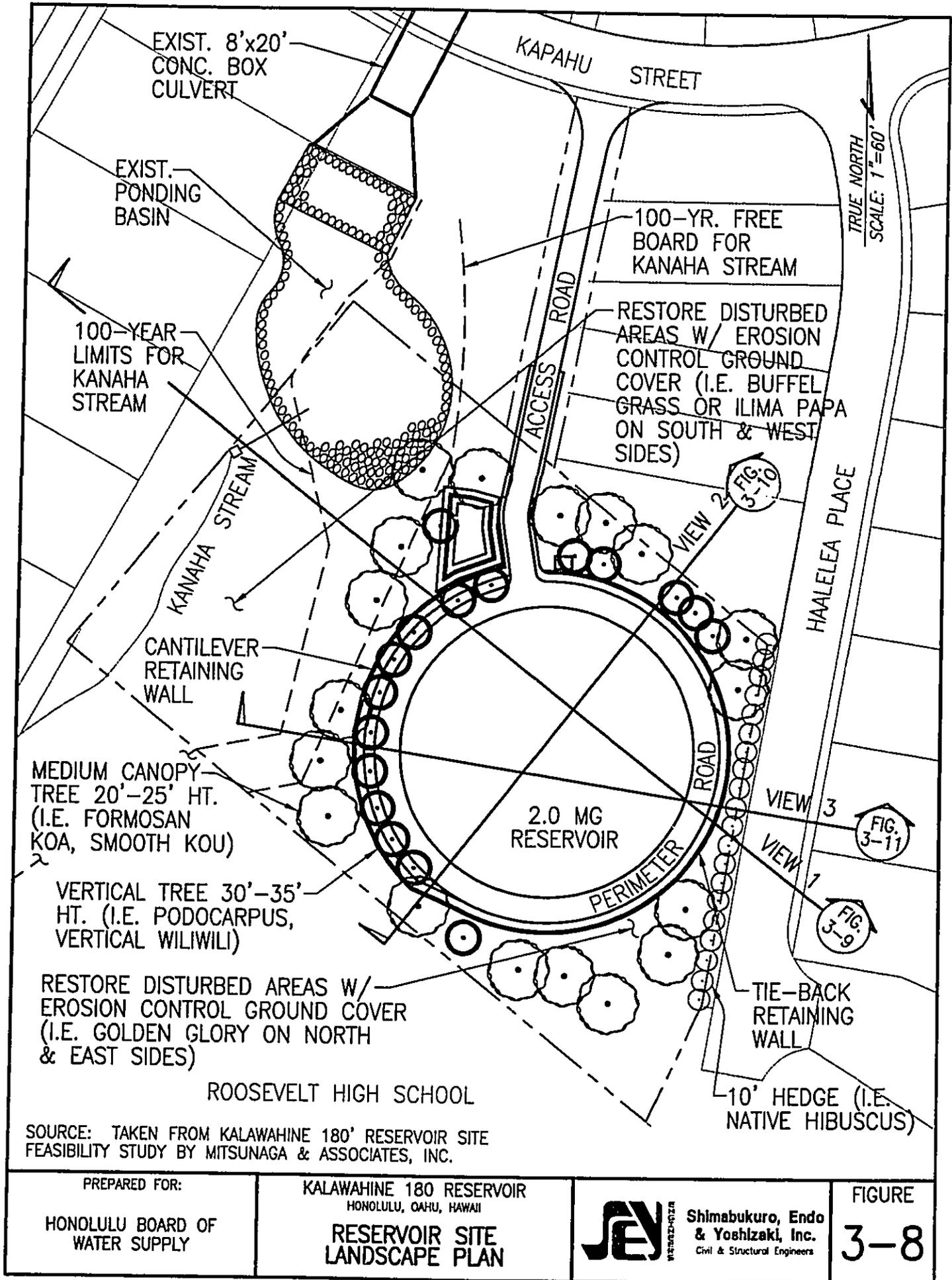
A conventional cantilever type free standing reinforced concrete retaining wall supported on new structural backfill material will be constructed on the lower western side of the reservoir. See Figure 2-4. Height of wall will vary from 4 feet to 15 feet. The wall will be placed above the flood limits of Kanaha Stream and will have no adverse impact on the stream.

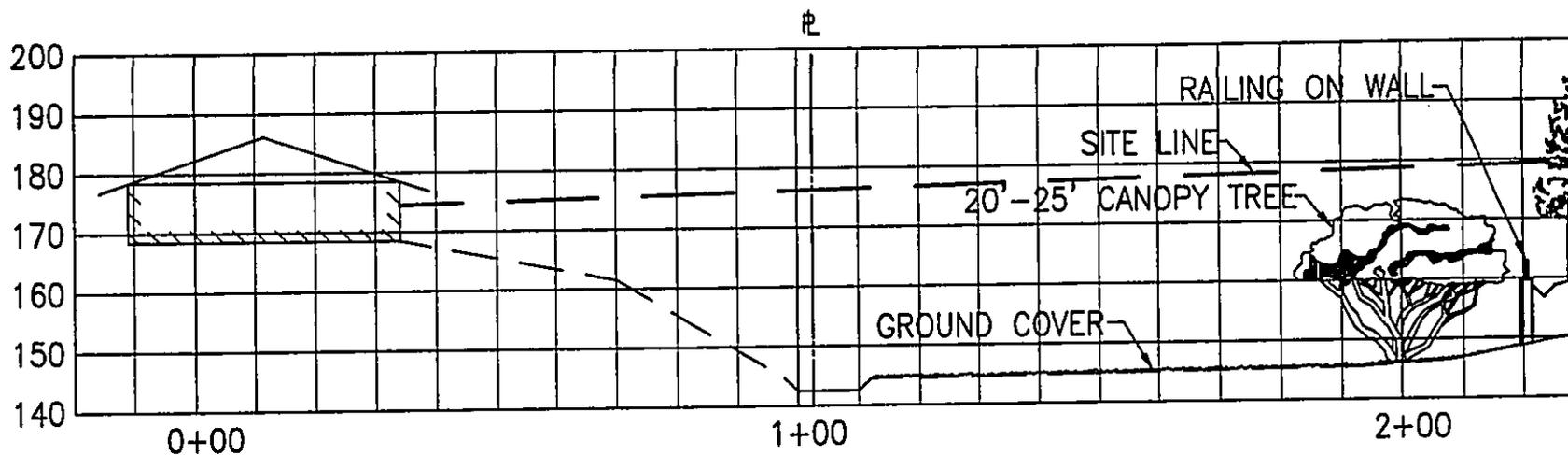
To mitigate the visual impacts of the graded site and reservoir improvements, landscaping will be used for screening and the reservoir and peripheral retaining walls will be painted to blend with the surrounding landscape. Three critical views or sight lines were reviewed for the Reservoir Site Feasibility Study. See Figure 3-8. The first sight line viewed the reservoir site from the existing Papakolea neighborhood. The resident directly across Kanaha Stream from the reservoir will have a direct view of the reservoir. To screen the view, canopy trees will be planted below the lower western retaining wall and vertical trees above the retaining wall. See Figure 3-9. The second sight line is viewed from one of the Kalawahine Streamside Development homes. The view from the home adjacent to the reservoir site will be screened with canopy and vertical trees. See Figure 3-10. The third critical view or sight line will be from the home across Haalelea Place of the Kalawahine Streamside Development. A hedge along the right-of-way of Haalelea Place will screen the reservoir from this home. See Figure 3-11. Thus, a combination of hedges, canopy and vertical trees to screen the reservoir and painting of the peripheral retaining walls to blend with the surrounding landscape will mitigate the visual impacts.

3.14 Public Views

Public views of the reservoir site were also examined as part of the visual impact evaluation. To assess the visual impact of the expected constructed condition, a representation of the proposed 2.0 MG reservoir, access road and site improvements (reproduced to approximate scale) were superimposed on photographs of the existing site. The photographs were taken from three public view points on July 31, 2000. See Figure 3-12.

The photograph taken from Public View Point 1 (see Figure 3-13) shows the expected view of the proposed reservoir from the intersection of the reservoir access road with Kapahu Street in the Kalawahine Streamside Development. This photograph depicts what would be seen by a pedestrian or motorist on Kapahu Street looking down at the proposed site. The vertical and canopy trees that are part of the site landscape plan will be the seen from this view point along with portions of the peripheral retaining wall and access road.

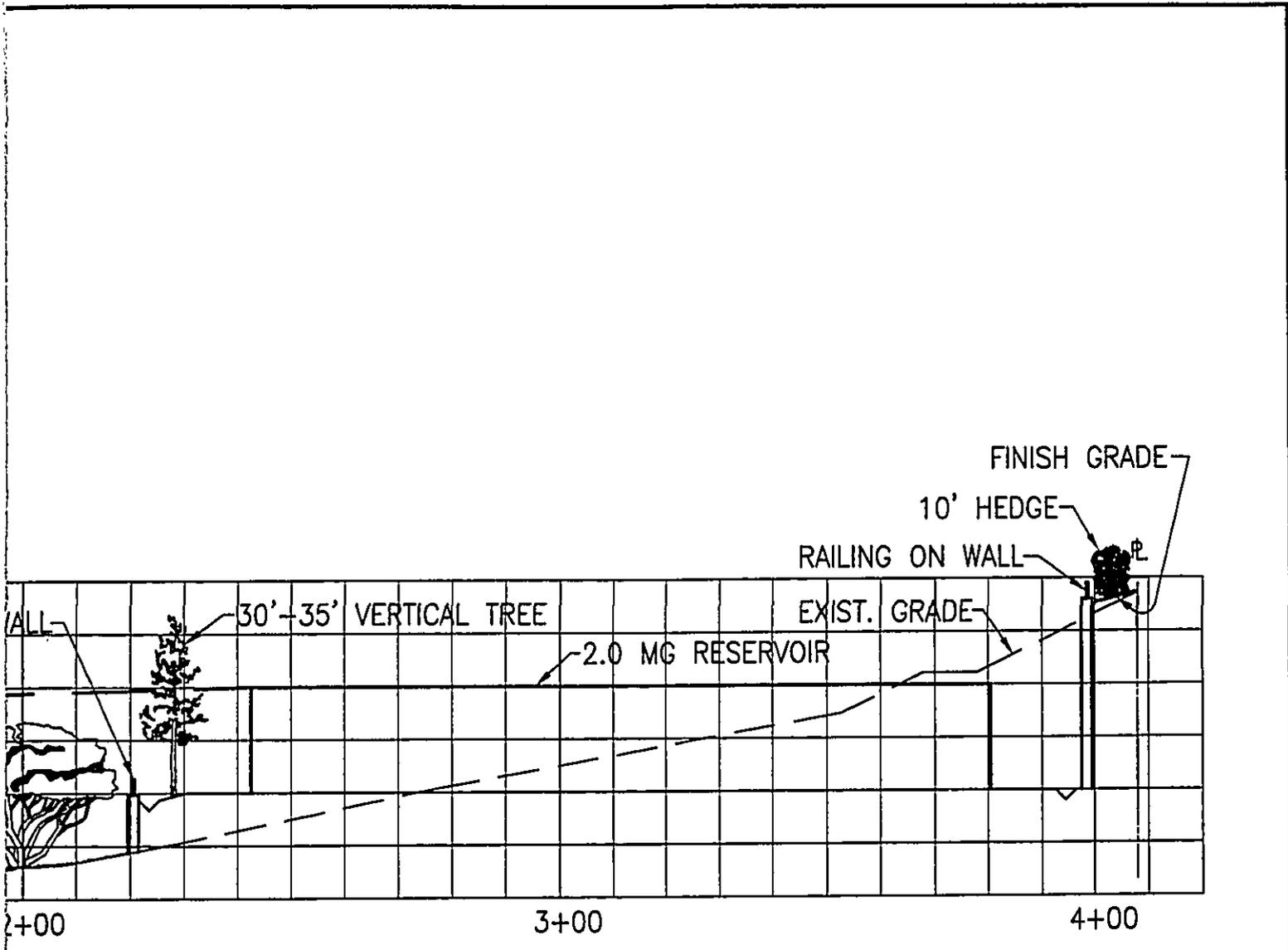




SITE LINE-VI
SCALE: 1"=30'

SOURCE: TAKEN FROM KALAWAHINE 180' RESERVOIR SITE
FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.

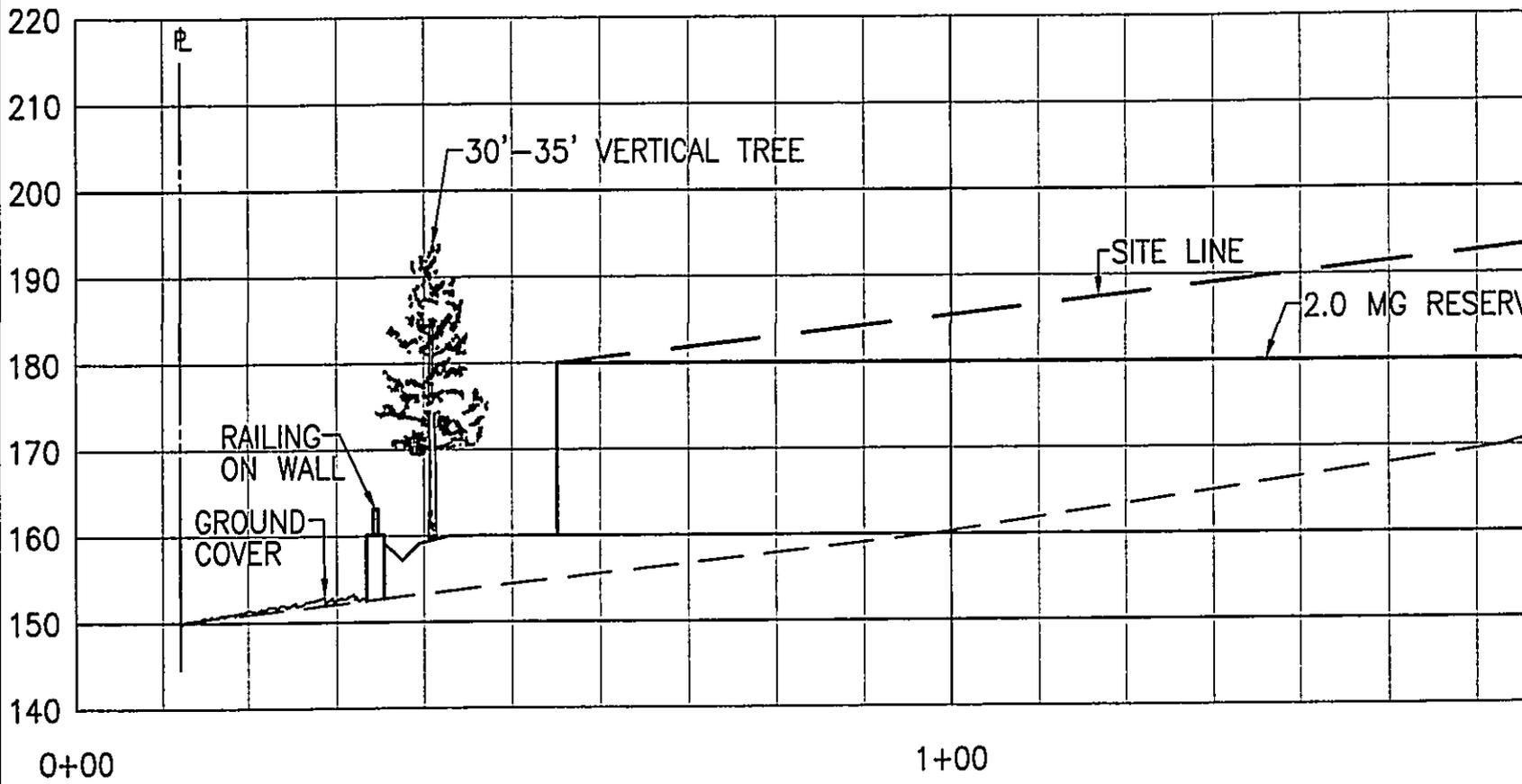
HON



LINE-VIEW 1

0'

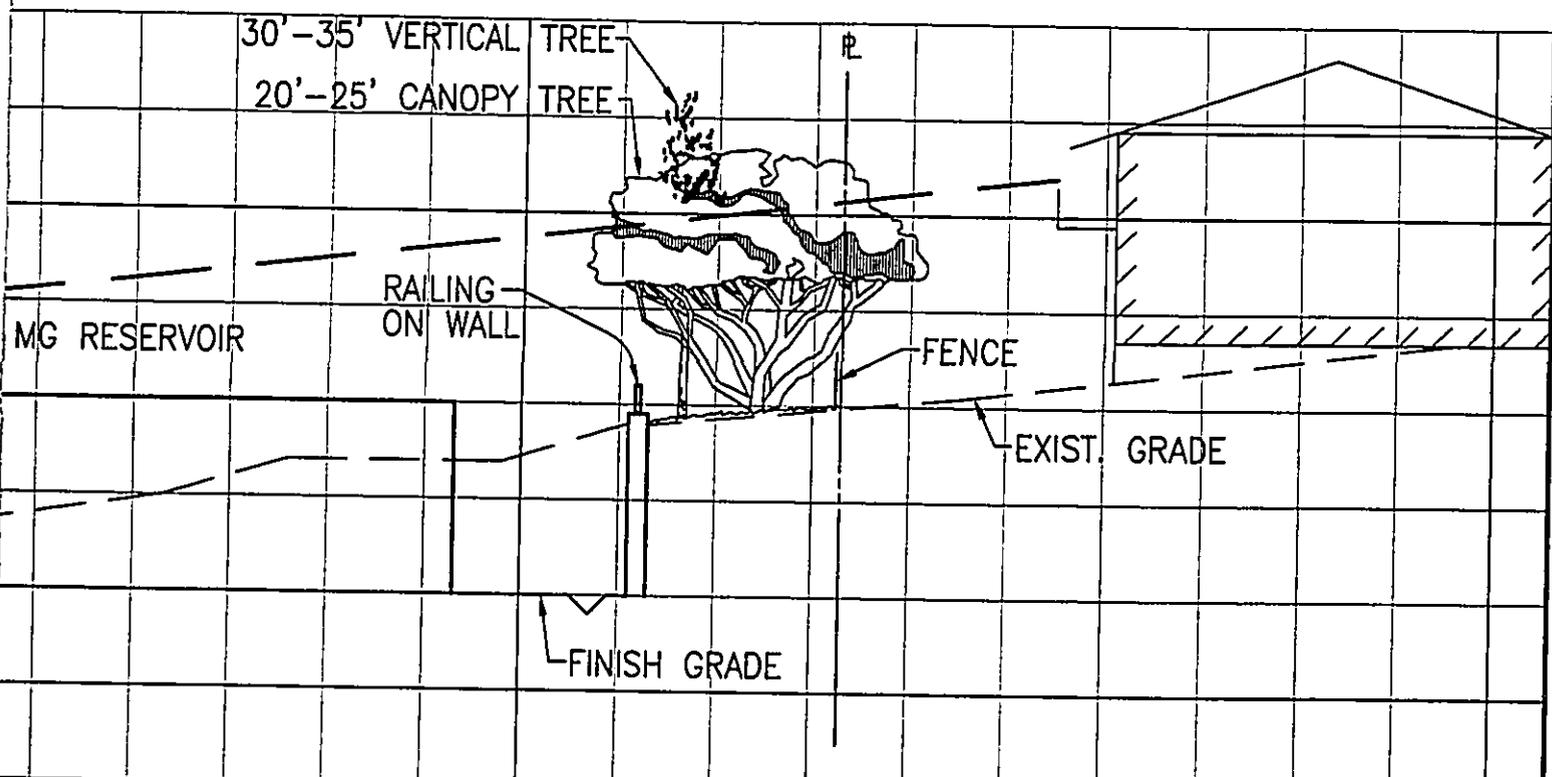
<p>PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY</p>	<p>KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII RESERVOIR SITE LINE - 1</p>	 <p>Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers</p>	<p>FIGURE 3-9</p>
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SITE LINE-VIEW
SCALE: 1"=20'

SOURCE: TAKEN FROM KALAWAHINE 180' RESERVOIR SITE
FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.

HO

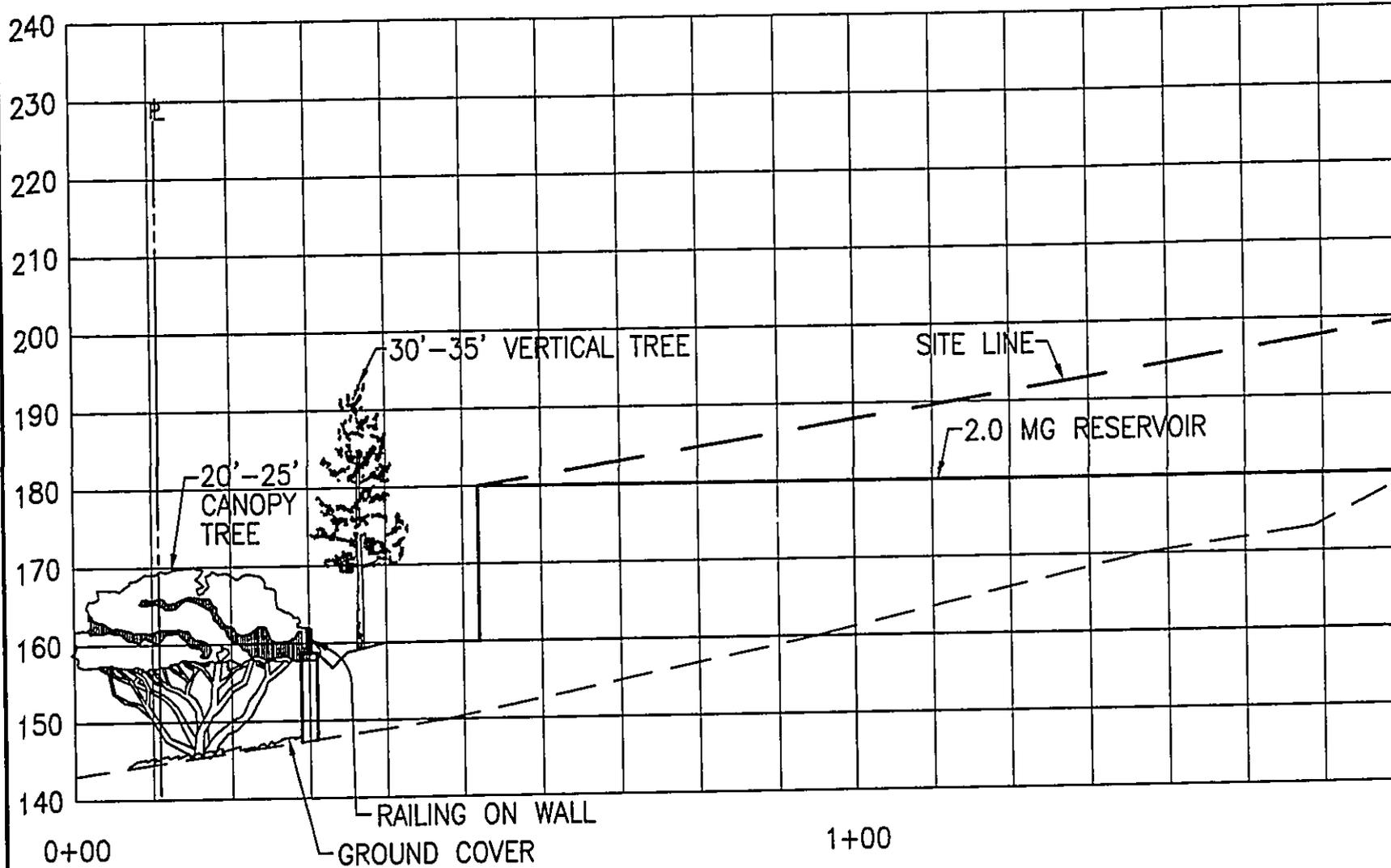


2+00

3+00

VIEW 2

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII RESERVOIR SITE LINE - 2	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 3-10
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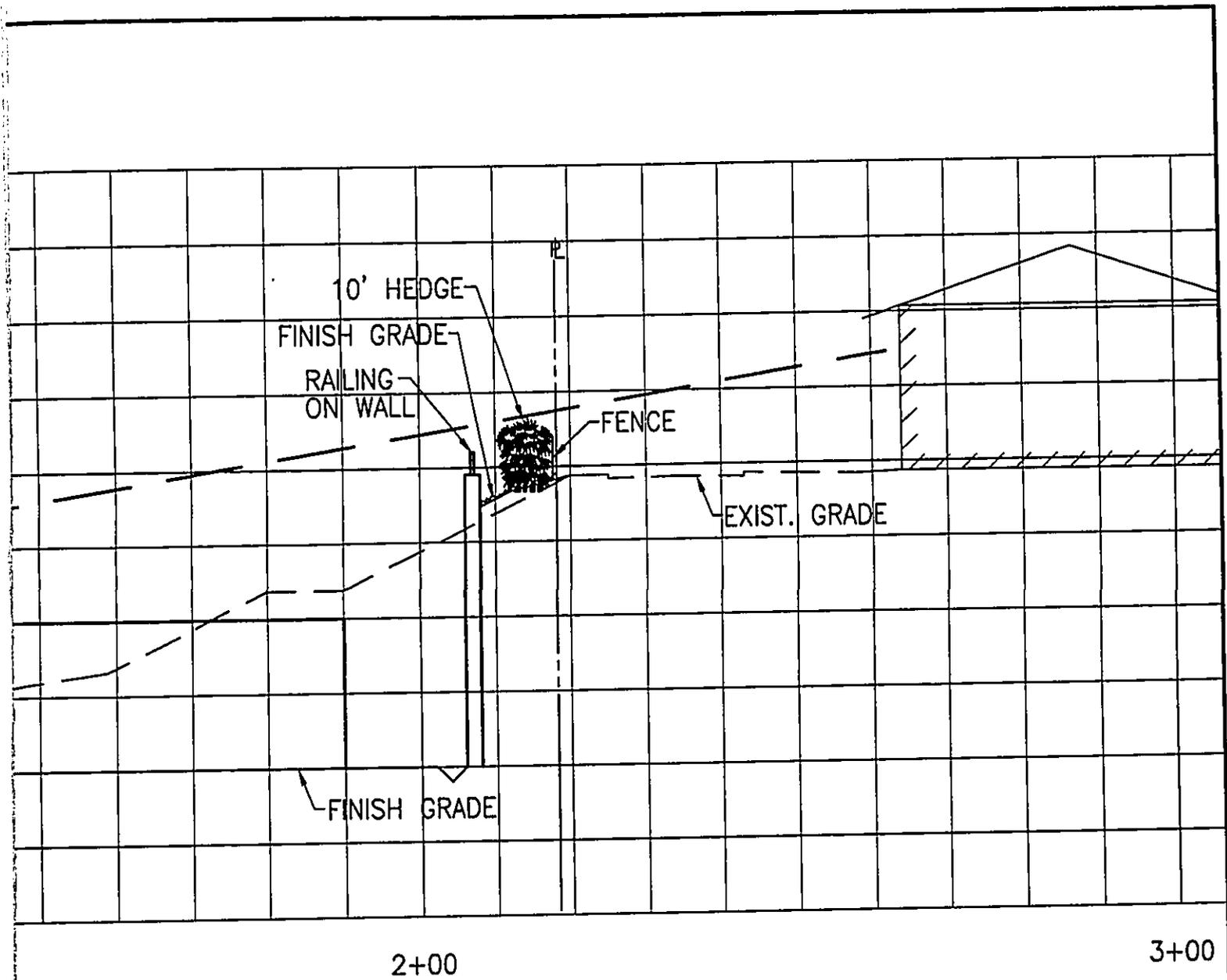


SITE LINE-VIEW

SCALE: 1"=20'

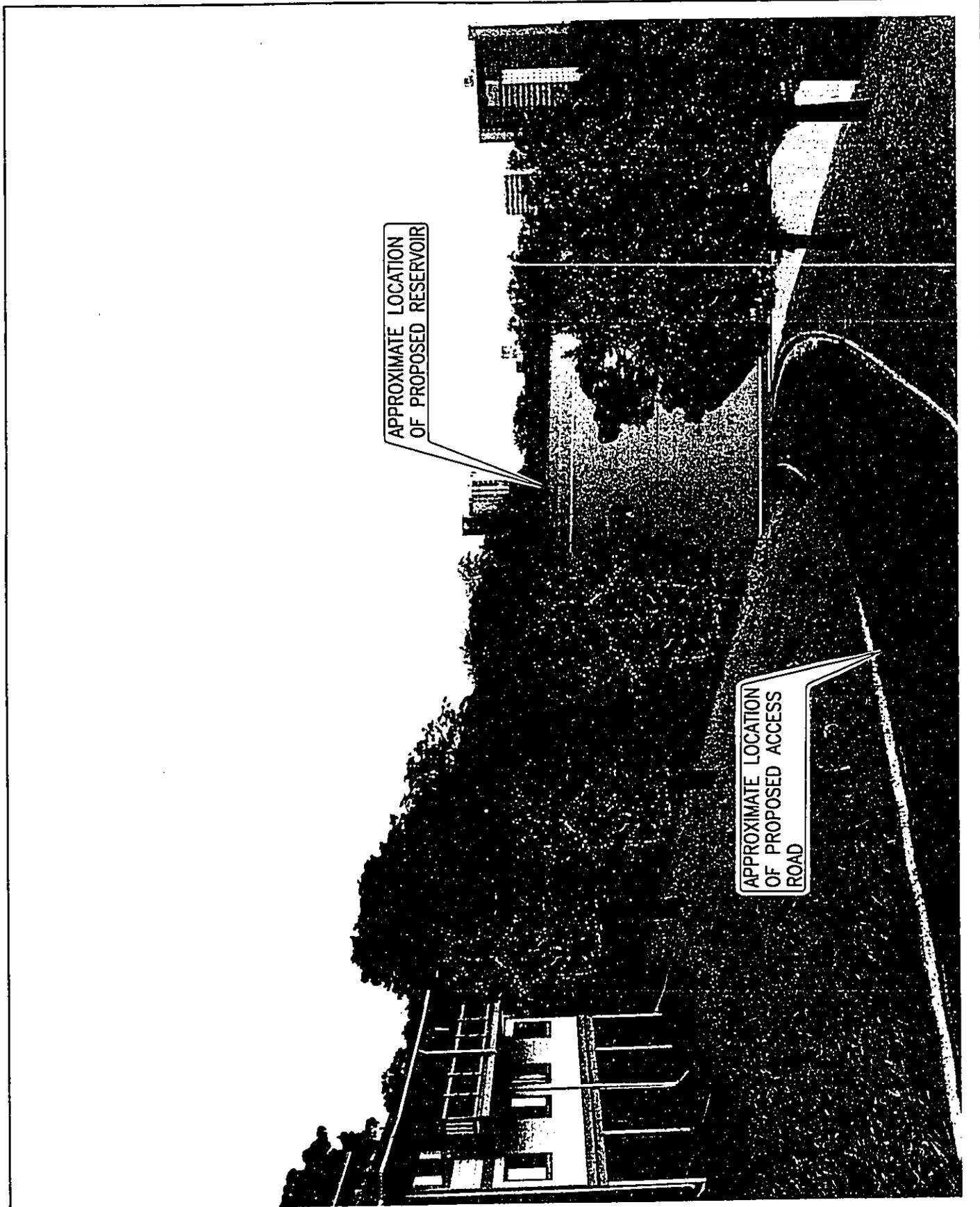
SOURCE: TAKEN FROM KALAWAHINE 180' RESERVOIR SITE
FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.

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V



NE-VIEW 3

PREPARED FOR: HONOLULU BOARD OF WATER SUPPLY	KALAWAHINE 180 RESERVOIR HONOLULU, OAHU, HAWAII RESERVOIR SITE LINE - 3	 Shimabukuro, Endo & Yoshizaki, Inc. Civil & Structural Engineers	FIGURE 3-11
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PREPARED FOR:
**HONOLULU BOARD OF
 WATER SUPPLY**

KALAWAHINE 180 RESERVOIR
 HONOLULU, OAHU, HAWAII
PUBLIC VIEW POINT 1

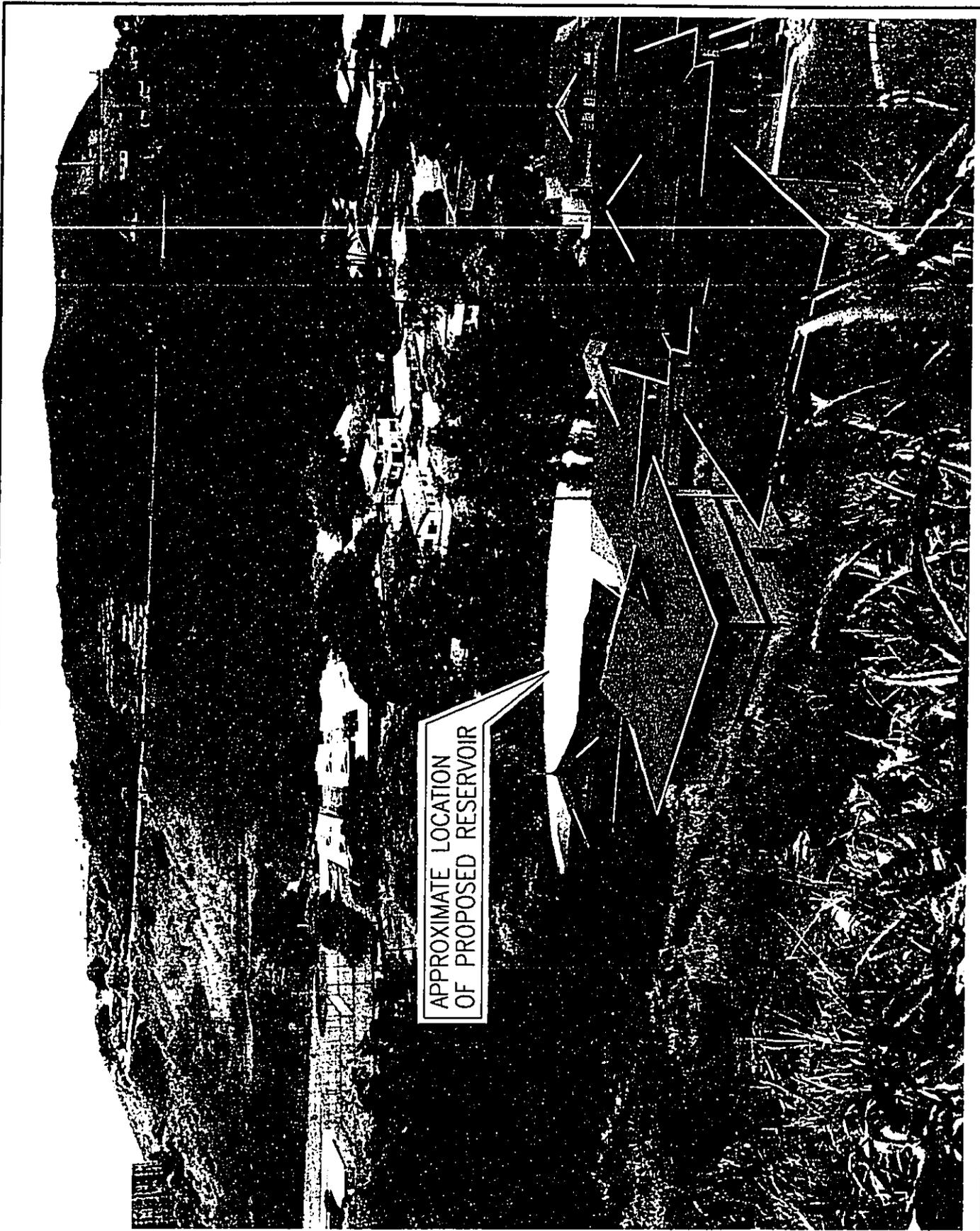
J&Y SHIMABUKURO, ENDO & YOSHIKAZAKI
**Shimabukuro, Endo
 & Yoshizaki, Inc.**
 Civil & Structural Engineers

FIGURE
3-13

Public View Point 2 (see Figure 3-14) is located on Kalawahine Place in a residential area that overlooks the Kalawahine Streamside Development. This particular location is one of the few open spots in upper Makiki and Tantalus from which the proposed reservoir site can be seen. The photograph taken from Public View Point 2 indicates that only a modest section of the 2.0 MG reservoir will be visible. The expected view of the reservoir site will also include vertical trees that are part of the proposed landscape plan.

The photograph from Public View Point 3 (see Figure 3-15) was taken at street level from Puowaina Road located on the eastern slope of Punchbowl Crater. As the sole ingress and egress to and from the National Memorial Cemetery of the Pacific, Puowaina Road is frequently traveled by tour buses and other vehicles. This photograph renders an expected view of the reservoir site from the perspective of a pedestrian or motorist showing the reservoir, retaining wall, and landscaping trees. Roosevelt High School, Stevenson Middle School, Lincoln Elementary School, upper Makiki, Papakolea and the Kalawahine Streamside Development will also be seen from Public View Point 3.

As indicated by the views presented in the photographs taken from Public View Points 1, 2, and 3, while the proposed 2.0 MG reservoir will be visible from upper Makiki, Punchbowl, Papakolea, and the Kalawahine Streamside Development, there will be no adverse visual impacts to the surrounding landscape. The reservoir and retaining wall structure will blend in with the existing landscape and neighboring buildings from Roosevelt High School, Stevenson Middle School, Lincoln Elementary School and homes in the new Kalawahine Streamside Development and Papakolea. The cut and fill of the existing slope and the reservoir improvements that would otherwise stand out, will be landscaped with ground cover and screened by hedges and canopy and vertical trees. Both the reservoir and peripheral retaining wall structure will be painted so as to complement the surrounding landscape. This will assure that the appearance of the constructed site is unobtrusive to nearby residents and remains compatible with natural vegetation of the existing hillside backdrop. It is anticipated that the proposed reservoir site will be fairly unnoticeable to residents, people passing by, as well as pedestrians and motorists along the slopes of Punchbowl and Tantalus.

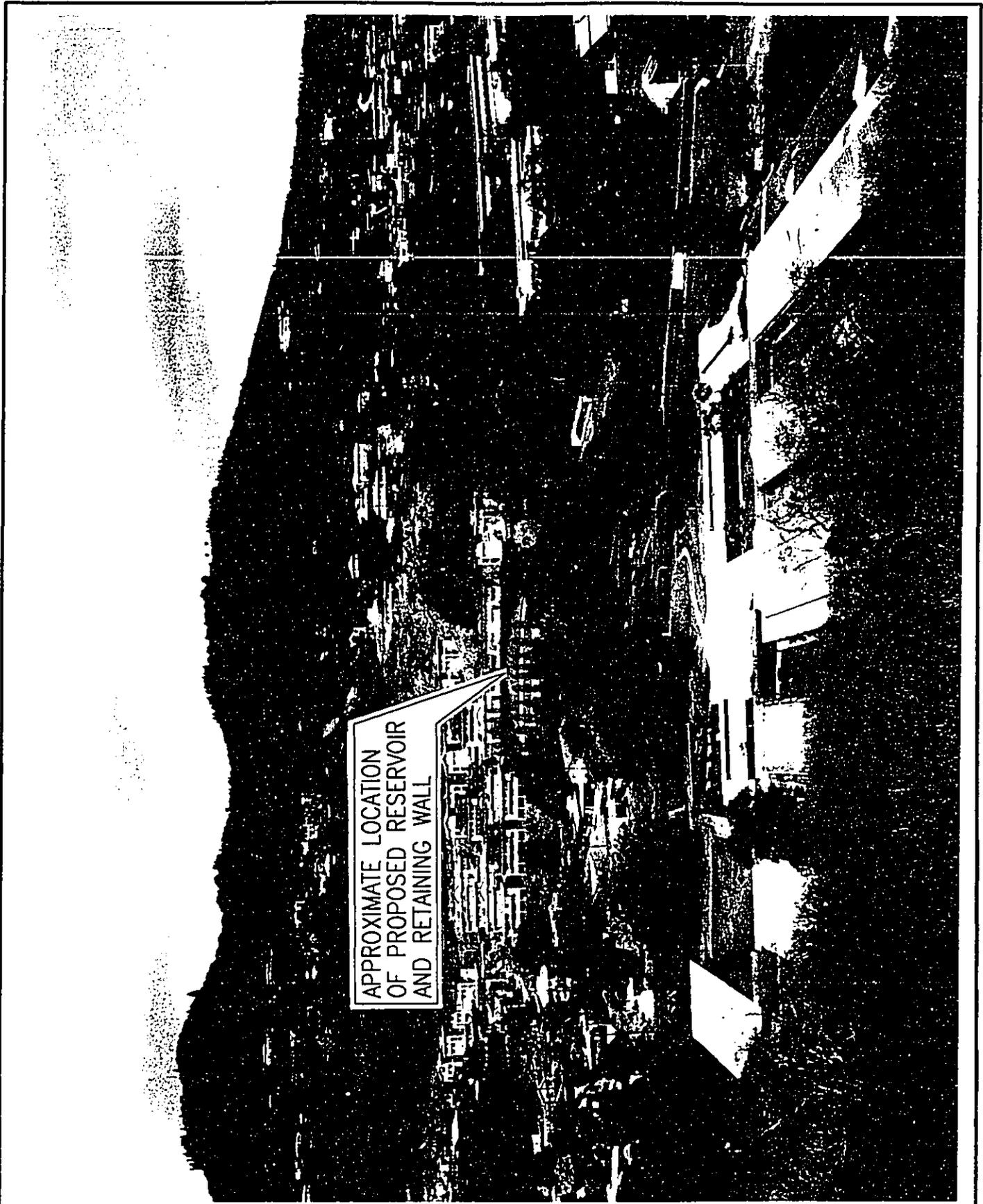


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KALAWAHINE 180 RESERVOIR
HONOLULU, OAHU, HAWAII
PUBLIC VIEW POINT 2

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& Yoshizaki, Inc.
Civil & Structural Engineers

FIGURE
3-14



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KALAWAHINE 180 RESERVOIR
 HONOLULU, OAHU, HAWAII
 PUBLIC VIEW POINT 3

SEI
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 & Yoshizaki, Inc.
 Civil & Structural Engineers

FIGURE
 3-15

CHAPTER IV

SUMMARY OF POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

4.1 Short Term Impacts

The project is scheduled to begin in mid-2003, take approximately 17 months to complete, and should be finished by early-2005. During the construction period the following short term potential impacts are anticipated:

4.1A Land Use

The project will have minimal effect on existing and proposed land use. During construction, access to and from driveways and to adjoining roadways and usage of road frontage (mail, deliveries, parking) may be occasionally hampered by trenching, paving, construction materials deliveries, etc. Disruptions will be mitigated by requiring the contractor to perform work in accordance with a City approved construction schedule and traffic control plan. There will be no long term interference with any existing or proposed State and City land use of the project site and adjacent properties due to the project.

4.1B Air Pollution

During construction, fugitive dust and exhaust emissions from construction equipment may degrade the air quality in the project vicinity. The contractor will be required to minimize dust within the project and surrounding areas, including Lincoln Elementary School, Stevenson Middle School and Roosevelt High School, by using mitigative measures such as water sprinkling whenever feasible, wet cutting of existing asphaltic concrete pavement, and limiting the area being worked on at any one time. The work shall be in conformance with HAR Title 11 DOH Chapter 60.1 Air Pollution Control. The contractor will be required to provide proper tuning and maintenance of all construction equipment and vehicles to minimize pollutants from exhaust emissions.

4.1C Drainage and Kanaha Stream

The reservoir site is adjacent to Kanaha Stream, an intermittent stream. During construction, there is the potential for transport of storm runoff sediment from the site grading operations to Kanaha Stream and to the downstream City drainage system. This will be mitigated by requiring the contractor to comply with the requirements of the NPDES General Permit and the City's Grading, Soil Erosion and Sediment Control Ordinance, use desilting basin and silt fences, and promptly pave and vegetate graded areas to reduce sediment.

In order to isolate construction activities and prevent construction-related pollutants and debris from entering into State waters, best management practices will be implemented during trenching across the stream. The key mitigating factor is to schedule trenching during dry weather when there is no stream flow. All debris and loose material are to be removed

from the construction site at the completion of each work day. Construction equipment will also be inspected daily for oil, fluid, and fuel leaks. The monitoring program will consist of visual inspection and photographic documentation before, during and after trenching across the stream.

4.1D Flora and Fauna

The project is located in an urbanized area of Honolulu and will have no effect on flora, fauna and significant habitats since no endangered or threatened plant or animal species are known to exist at the project site. Any existing plants, grassed areas and surface improvements damaged by construction will be restored by the contractor to original or better condition.

4.1E Archaeological, Historical or Cultural Sites

Significant archaeological, historical or cultural sites including human burials are not known to exist at the reservoir site and along the waterline route (Cultural Surveys Hawaii, 1999 and SHPD, 2000); but if any are uncovered during construction, work will stop and the SHPD of DLNR will be contacted. If burial remains are found, the O'ahu Island Burial Council will also be contacted.

4.1F Utilities

Utility services for water, gas, electric, telephone, and cable TV should not be disrupted during construction activities. The vertical or horizontal alignment of an existing 6-inch sewer line at Alapai Street will need to be adjusted to accommodate the connection of the new 24-inch influent/effluent line to the existing 18-inch influent/effluent line. The contractor will be required to verify utility locations, protect utilities during construction and ensure no interruption of services of all existing utilities within the project area during construction. Access to fire apparatus will be maintained throughout the construction site and any interruption in the existing fire hydrant system during construction will be reported to the Fire Department by the contractor.

4.1G Noise

Periodic noise from construction equipment such as backhoes, trucks, compactors, and pavers will impact residents near the project vicinity and should not impact the nearby Lincoln Elementary School, Stevenson Middle School and Roosevelt High School. Noise impacts will be mitigated during construction by requiring the contractor to consult with the Department of Education to set up a construction schedule which will minimize noise impacts to students and teachers in the nearby surrounding schools and to apply current techniques and methods of sound attenuation and abatement such as noise reducing mufflers. The contractor will obtain a Community Noise Control Permit from the DOH and observe and comply with HAR Title 11, DOH Chapter 46 regarding noise control to protect the public from the effects of noise from construction activities. Restrictions on noise levels and operational hours of the noisiest equipment will minimize the impacts on the adjoining

community. Conditions of the Noise Permit shall be enforced and violators penalized by the Director of DOH. Nighttime work is not anticipated for the project.

4.1H Traffic

Traffic passing through the project waterline route will be disrupted since vehicles will be diverted around the roadway work areas during installation of the waterline. The contractor will be required to coordinate construction activities at the reservoir site and along affected roadways with the Police Department District 1. Two lanes will be closed to traffic during waterline construction. Vehicular access to and from Lincoln Elementary School, Stevenson Middle School, and Roosevelt High School will be impacted by the closure of two lanes of Auwaiolimu and Pensacola Streets. Green Street between Emerson Street and Alapai Street is only two lanes wide and will require closure during construction. Access to and from driveways on Green Street will be maintained during construction. Access to fire apparatus throughout the construction site will be maintained for the duration of the project.

All walkways and intersections shall be maintained in passable condition for pedestrian traffic. Appropriate signs and barriers will be required and generally at least two lanes will remain open during normal working hours (8:30 a.m. to 3:30 p.m.). Construction, including the movement of large construction vehicles, during peak traffic hours and at night will be avoided. On-street parking of construction equipment will be limited, especially in residential areas.

Parking will be restricted on both sides of streets during construction where applicable. The contractor will be responsible for developing traffic management and control plans which will be prepared during the construction phase by a licensed civil engineer and will be submitted to DPP Traffic Review Branch for review and approval. Traffic through the construction work areas during the various construction phases will be controlled by police officers and/or trained construction flagmen to minimize disruptions and inconveniences and to improve traffic flow. Pedestrian traffic will be provided for. The contractor will be required to obtain a Street Usage Permit from the DTS and a Trenching Permit from the DPP prior to commencement of work that will temporarily obstruct any portion of the City roadway or sidewalk and comply with the requirements of both permits.

The contractor will be required to do the following to minimize traffic disruptions:

1. Maintain continuous access to and from driveways and public streets.
2. During non-working hours, cover all trenches with safe non-skid bridging material and open all lanes to traffic.
3. Maintain all walkways and intersections in passable condition for pedestrian traffic.

The contractor will be required to follow the safety precautions and requirements of the:

1. "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways," adopting the Highway Safety Coordinator, and
2. "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI, Traffic Controls for Highway Construction and Maintenance Operations" by the U.S. Federal Administration.

To further mitigate short term impacts, the contractor shall coordinate work with the Lincoln Elementary School, Stevenson Middle School, and Roosevelt High School administrations. At least two weeks prior to commencement of construction, the contractor will be required to notify all affected residents adjacent to the reservoir site and along the waterline route, the Department of Education, administrations of Lincoln Elementary School, Stevenson Middle School, and Roosevelt High School, the Makiki and the Nuuanu Punchbowl Neighborhood Boards, the Kalawahine Streamside Association, the Papakolea Community Association, emergency services (fire, police and ambulance), the general public and DTS of the following: nature of the work, the construction schedule, of lane and street closures or detours, suggested alternative routes, the expected length of time of inconveniences, of any restrictions which may be imposed to complete the work and the contractor's phone number to be called to report traffic concerns. The Fire Communication Center (523-4411) will be notified of any interruptions in the existing fire hydrant system during construction.

Although construction of the proposed action will cause some traffic impacts, the impacts are considered acceptable. The basis for considering the level of impact acceptable is that the proposed action is consistent with the goals of the State's policy of fostering safe, sanitary and decent homes. It is also consistent with the City and County of Honolulu's policy of maintaining an adequate supply of water for both residents and fire protection. The construction of the proposed action will be a temporary condition, lasting about seventeen months.

4.2 Long Term Impacts

The long term impacts of this project are positive. Long term potential impacts anticipated with the implementation of this project include:

4.2A Socio-Economic

The preliminary estimated construction cost of the 2.0 MG Kalawahine Reservoir and 24-inch influent/effluent line project is about \$7,104,000 in 2003 dollars. The labor costs associated with a reservoir and waterline project of this magnitude will provide a positive economic impact on the construction industry. The improvement of the water system performance and reliability in meeting domestic and fire protection needs of business and residential communities in the Metro Low West (180') service area due to the additional 2.0 MG storage of water will be the primary long-term positive socio-economic impact of this project.

4.2B Topography

The sloping topography of the reservoir site will be permanently changed by the grading of the site for the reservoir and by the construction of the reservoir, retaining walls, access and perimeter roads, and instrument building. The reservoir site will have cuts of up to 40 feet and fills of up to 15 feet high. The circular reservoir will be constructed of reinforced concrete with a diameter of approximately 138 feet and height of approximately 21.5 feet. The spillway and floor elevations will be 180 and 160 feet above MSL, respectively. The layout of the reservoir site is shown in Figure 2-3. A cross section of the site is shown in Figure 2-4.

A tie-back (earth anchor system) retaining wall will be constructed between the reservoir and Haalelea Place of the Kalawahine Streamside Development. See Figure 2-4. Height of the wall will vary from 7 feet to 40 feet. There will be no adverse long term impact to Haalelea Place adjacent to this retaining wall.

The lower retaining wall below the proposed reservoir will be a conventional cantilever type free standing reinforced concrete wall supported on new structural backfill material. See Figure 2-4. Height of wall will vary from 4 feet to 15 feet. The wall will be placed above the 100-year flood limits of Kanaha Stream and will have no long term adverse impacts on the stream.

To mitigate the long term impacts of the reservoir site grading on the existing sloping topography of the reservoir site, the design and construction of the site grading plan will be performed in accordance with the City's Grading, Soil Erosion and Sediment Control Ordinance. Permanent landscaping and irrigation system will be installed as discussed below under Visual Impacts. There will be no long term impacts on the surrounding environments due to construction of the 24-inch influent/effluent line.

4.2C Visual Impacts

Grading of the reservoir site and construction of the reservoir as discussed above under Topography will create long term visual impacts to the site and surrounding areas. No adverse impacts are anticipated to the public views, serenity, natural appearance and sanctity of Punchbowl and its environs. The primary concern is to screen the reservoir structure from the adjacent Kalawahine Streamside Development homes to the north and east of the reservoir and the existing Papakolea homes on Anianiku Street to the west. To mitigate the visual impacts of the graded site and reservoir improvements, landscaping will be provided for screening and the reservoir and peripheral retaining walls will be painted to blend with the surrounding landscape. See Figure 3-8.

Three critical views or sight lines were reviewed in the Reservoir Site Feasibility Study. See Figure 3-8. Landscaping discussed in this section was proposed in the Reservoir Site Feasibility Study. Similar types of landscaping will be used in design and residents will be allowed input in developing creative design features like berms, rock walls, native landscaping, and earth-tone paint to reduce visual impacts. The first sight line viewed the

reservoir from the existing neighborhood in the Papakolea area. The resident directly across Kanaha Stream from the reservoir will have a direct view of the reservoir. To screen the view, landscaping such as canopy trees of Formosan Koa or Smooth Koy will be planted below the lower retaining wall and vertical trees of Prodocarus or Vertical Wiliwili above the retaining wall. See Figure 3-9. The second site line is viewed from one of the Kalawahine Streamside Development homes. The view from the home adjacent to the reservoir site will be screened with canopy and vertical trees. See Figure 3-10. The third critical view or sight line will be from the home across Haalelea Place of the Kalawahine Streamside Development. A hedge of Native Hibiscus along the right-of-way of Haalelea Place will screen the reservoir from this home. See Figure 3-11.

Two different types of ground cover will be used to establish erosion control and screen the disturbed graded slopes. The north and east sides of the reservoir adjacent to Kalawahine Streamside Development homes, will be planted with Golden Glory, a shade tolerant species that will be permanently irrigated. The south and west sides of the reservoir will be planted with Buffel Grass and Ilima Papa, native Hawaiian ground covers, which will be temporarily irrigated for a 90-day maintenance period. After the 90-day maintenance period, the ground cover will not require irrigation and will be left to grow naturally. As the area matures in growth, other species will grow naturally to combine with the planted ground covers to stabilize the natural slope.

Trees and shrubs will be supported with a permanent automatic irrigation system which may use water-conserving bubblers for trees and drip irrigation for shrubs. Ground cover areas adjacent to the Kalawahine Streamside Development will also be maintained with the permanent automatic irrigation system. The ground cover areas on the west side of the reservoir will be temporarily irrigated during a 90-day plant establishment period. After the 90-day establishment period, the ground cover will grow naturally and will not require maintenance or irrigation.

Landscaping, including a combination of canopy and vertical trees and hedges, will be used to screen the reservoir and retaining walls and ground covers will be used to screen the disturbed graded areas from homes adjacent to the reservoir site. The three site lines reviewed above demonstrate that the project landscape plantings will mitigate the long term visual impacts of the graded site and reservoir improvements to the adjacent Kalawahine Streamside Development homes on the north and east of the reservoir and the existing Papakolea homes on Anianiku Street to the west.

Public views of the reservoir improvements were also evaluated from three public view points. See Figure 3-12. Photographs were taken from the public view points and the proposed reservoir improvements were superimposed on the photographs. See Figures 3-13, 3-14 and 3-15. The photographs of the proposed landscape and reservoir improvements to the Kalawahine site will not generate significant adverse visual impacts. The landscape and site grading plans will ensure that the constructed reservoir site is visually unobtrusive to nearby residents and blends in with the existing surrounding environment. It is anticipated that the reservoir will be fairly unnoticeable to people passing by, as well as pedestrians and motorists along the slopes of Punchbowl and Tantalus.

CHAPTER V ALTERNATIVES TO PROPOSED ACTION

5.1 Proposed Action

The proposed action is to construct a 2.0 million gallon (MG) reservoir at the Kalawahine site above Roosevelt High School and a 24-inch influent/effluent line from the reservoir to Alapai Street connecting to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line. See Figure 2-6. The proposed action is the preferred alternative of the BWS after review of the original Phase I Report Honolulu 180' Regional Reservoir Site Location Study (Kwock Associates, Inc., 1999) and the Kalawahine 180 Reservoir Site Feasibility Study (Mitsunaga & Associates, Inc., 2000). The reservoir will serve the Metro Low West (180') potable water system service area from Salt Lake to Diamond Head. The current system does not have enough storage capacity and is deficient by 55 MG. This new reservoir will add 2.0 MG storage capacity to the system.

5.2 Reservoir Alternatives

Potential reservoir sites were thoroughly evaluated in the BWS' Honolulu 180 Regional Reservoir Site Location Study which evaluated potential sites in the Honolulu District for reservoir development in the 180 system. These potential sites are listed below:

1. Diamond Head, Site 1, Diamond Head Road
2. Diamond Head, Site 2, Diamond Head Road
3. Salt Lake, Likini Street, above Salt Lake Elementary School
4. Makiki, Prospect Street, above Stevenson Intermediate School
5. Makiki Auwaiolimu Street, above Lincoln Elementary School
6. Existing Waialae 180 Reservoir Site
7. Kapalama, Makuakane Street
8. Kalihi, BWS Corporation Yard, off Kini Street

Several of these potential sites were disclosed in the Draft EA as alternate sites for the Kalawahine site. However, the BWS intends to pursue all of these sites for reservoir development due to the large storage deficit in the Honolulu 180 system.

Various storage alternatives were initially considered by the Reservoir Site Feasibility Study to satisfy the objective of constructing a 2.0 MG reservoir, including:

1. No Action alternative,
2. Elevated Reservoir alternative,
3. Underground Reservoir alternative, and
4. Ground Level Reservoir alternative

The above alternatives were studied to determine if they met the objectives of the BWS and if they had significant environmental impacts which would preclude them from selection. Their environmental impacts and benefits were comparatively evaluated. The ground level reservoir alternative was selected for the project. The first three alternatives were eliminated for the reasons explained below.

5.2A No Action Alternative

Under the No Action alternative, the water storage in the Metro Low West (180') service area will continue to be significantly below BWS standards. The standards require a storage capacity of 1.5 times the average daily use. An additional 55 MG of storage is required.

This alternative has no environmental impacts or direct cost to the BWS. The lack of sufficient water storage, however, may hamper fire-fighting efforts in the Metro Low West (180') service area during times of water main breaks. The No Action alternative may, therefore, have a direct impact on the health and safety of residents in this service area.

The No Action alternative and postponing the action are not acceptable courses of action. The objective of managing and operating Oahu's public water system to maintain a safe and reliable supply for the island residents would not be met.

5.2B Elevated Reservoir Alternative

Elevated reservoirs or water storage tanks are used in places that are generally flat with no mountains or hills close by. They are usually elevated upon towers above the ground to provide sufficient water pressure. In the Makiki/Punchbowl area, an elevated reservoir would be highly visible from the surrounding area and would have a significant visual impact.

This alternative was eliminated due to its significant visual impact that probably could not be mitigated to an acceptable degree. There are also other alternatives with less visual impact.

5.2C Underground Reservoir Alternative

An underground reservoir would have impacts similar to other reservoir alternatives, such as traffic, noise and dust impacts during construction. It will have little to no visual impact if the topography above the reservoir is constructed to match the existing topography before tank construction. Construction costs will be high and maintenance will be difficult.

Underground reservoirs would not be as reliable as a reservoir that is accessible around its perimeter. They are covered with earth that prevents easy access for maintenance and repair in a timely manner. In addition, there exists the potential for contamination by soil that may infiltrate the reservoir through joints or cracks.

For some repairs, underground reservoirs would have to be uncovered and repaired. Uncovering a reservoir would add a significant amount of time and cost to the repair of the

reservoir. There is a greater likelihood that an underground reservoir would have to be shutdown during certain emergencies. Permits may also have to be obtained to uncover the reservoir, which could add a significant amount of time between discovery of a leak and beginning of construction to repair the leak.

The underground alternative was eliminated as a possible action. The objective of managing and operating Oahu's public water system to maintain a safe and reliable supply for island residents would best be served via other alternatives. There are alternatives besides an underground reservoir whose visual impact could be mitigated to an acceptable degree. There are also other alternatives that would minimize reservoir down time and maintenance costs.

5.2D Ground Level Reservoir

Ground level reservoir was selected by the Reservoir Site Feasibility Study. The reservoir will have floor elevation at or near existing ground and is the most common type constructed by the BWS. Ground level reservoirs usually utilize the shallow subsurface formations to provide a stable foundation for the reservoir. Due to the sloping terrain and the Kalawahine reservoir being partially in cut and partially in fill, the reservoir will probably be supported by a drill shaft foundation and structural slab system. Retaining walls will be required. A perimeter road around the reservoir will be provided for access to the entire periphery of the reservoir for maintenance and repair. Visual impact will be mitigated by providing landscaping for screening the reservoir.

In addition, BWS ground level reservoirs are designed to withstand larger earthquakes than required by government regulations. The proposed reservoir will be designed and constructed according to the Uniform Building Code's Seismic Zone 3 standards although the entire island of Oahu is only classified as a Seismic Zone 2A area.

5.3 Transmission Main Stream Crossing Alternative

Three alternative construction methods were evaluated for the 24-inch water main crossing at Kanaha Stream. Two of the methods, microtunneling and horizontal directional drilling (HDD) are trenchless technologies that were considered, in addition to conventional open trench construction.

5.3A Microtunneling Alternative

Microtunneling is a remotely controlled, guided pipe jacking process in which a tunnel is drilled by a microtunneling machine from a jacking pit to a receiving pit along a predetermined path. The microtunneling machine is pushed through the earth using hydraulic jacks carefully mounted and aligned in the jacking pit. The pipeline is installed by continuously joining and pushing pipe sections behind the advancing microtunneling machine. Jacking and receiving pits require large work spaces, typically 15 feet wide and 25 feet in length and must be set up at each change in alignment.

Microtunneling is normally selected when a new line is required in a developed, highly congested area with numerous underground utilities such that other construction methods are not applicable. Moreover, because the water main alignment for the project is likely to consist of several changes in alignment, this method would add significantly to the construction cost due to the need for new jacking and receiving pits at each alignment change. The extra time required for set up would also lengthen the construction schedule prolonging the inconvenience to local area residents and Roosevelt High School. Thus, the microtunneling alternative was eliminated from further consideration.

5.3B Horizontal Directional Drilling Alternative

Horizontal directional drilling (HDD) is a remotely-controlled, trenchless process for installing pipelines across obstacles such as rivers, streams, and other environmentally sensitive areas where construction by excavation and replacement would be difficult or impossible. A pilot hole is drilled from the rig site at a prescribed angle and continues under and across the obstacle along a design profile and alignment made up of straight tangents and long radius arcs. The directional control is maintained by an electronic package through which data is transmitted back to the surface where calculations are made as to the location of the cutting head. After the pilot hole is completed, the hole is enlarged to a suitable diameter for the pullback of the pipeline by "prereaming" the hole to successively larger diameters. Once the drilled hole is enlarged, the pipeline is pulled through it. The pipe product may consist of high density polyethylene (HDPE), steel or other suitable material (Pacific Geotechnical Engineers, 2000).

HDD requires a work area at the rig site of a minimum 100 feet wide by 150 feet long. The drilling operation uses large volumes of water for the mixing of the drilling slurry; thus, a nearby source of water is necessary. In addition, a 20-foot cover must be provided to prevent blowout (Pacific Geotechnical Engineers, 2000).

When performed in the vicinity of a residential area, HDD will generate significant impacts on traffic and the surrounding residential environment, including the school environment in this case, due to the requirement of a large work area at the rig site of at least 100 feet by 150 feet and a work area at least 50 feet by 150 feet at the pipe site. This is likely to cause inordinate inconvenience to residents, commuters and Roosevelt High School. Thus, HDD was eliminated from further consideration for this project.

5.3C Open Trench Cut and Cover Alternative

Conventional cut and open trench construction is currently the most common and traditional method of waterline installation. An open trench is excavated, the new water line is installed, and the trench is backfilled. This was the method of construction proposed in the Kalawahine 180' Reservoir Site Feasibility Study (Mitsunaga & Associates, 2000). The study recommended that the waterline be trenched across the normally dry Kanaha Stream and concrete jacketed. Construction will be permitted only during dry periods and temporarily suspended during periods of heavy rainfall. The trenching method will not require a DA Permit nor authorization under the U.S. Army Corps of Engineer's General or

Nationwide Permit. The DLNR Commission on Water Resource Management has also determined that a Stream Channel Alteration Permit is not necessary.

5.4 Transmission Main Alternative

The Reservoir Site Feasibility Study proposed three transmission main alternatives to connect the 2.0 MG Kalawahine reservoir to the existing Metro Low West (180') system. The three alternatives proposed are listed below:

1. 16-inch influent/effluent line from the reservoir connecting to the existing 12-inch waterline in Wilder Avenue then continuing on a 16-inch influent line and connecting to the existing 42-inch transmission line in Kinau Street. See Figure 5-1.
2. 16-inch influent line from the reservoir connecting to the existing 42-inch transmission line in Kinau Street and a 16-inch effluent line from the reservoir to Wilder Avenue connecting to the existing 12-inch waterline in Wilder avenue. See Figure 5-2.
3. 24-inch influent/effluent line from the reservoir connecting to the existing Punchbowl 180' Reservoir's 18-inch influent/effluent line in Alapai Street. See Figure 2-6.

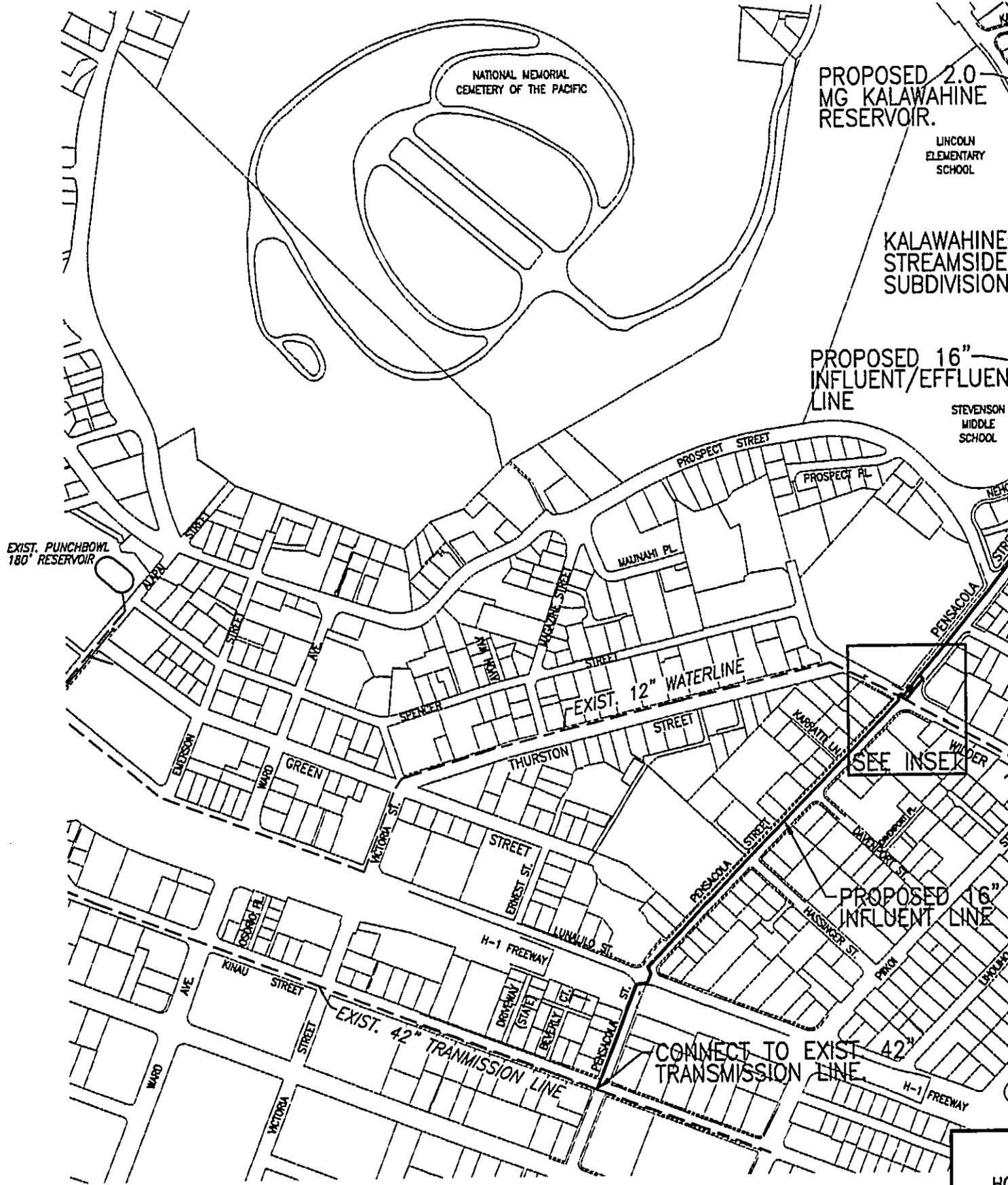
The above alternatives were examined by the Reservoir Site Feasibility Study to determine if they met the objectives of the BWS and if they had any significant environmental impacts which would preclude them from selection. The alternative with 24-inch influent/effluent line from the reservoir connecting to the existing 18-inch influent/effluent line in Alapai Street was selected for the project by BWS. This alternative has the least impact on traffic and will provide for the use of the reservoir as a regional reservoir for the Metro Low West (180') water system.

5.4A 16-Inch Influent/Effluent Line Alternative 1

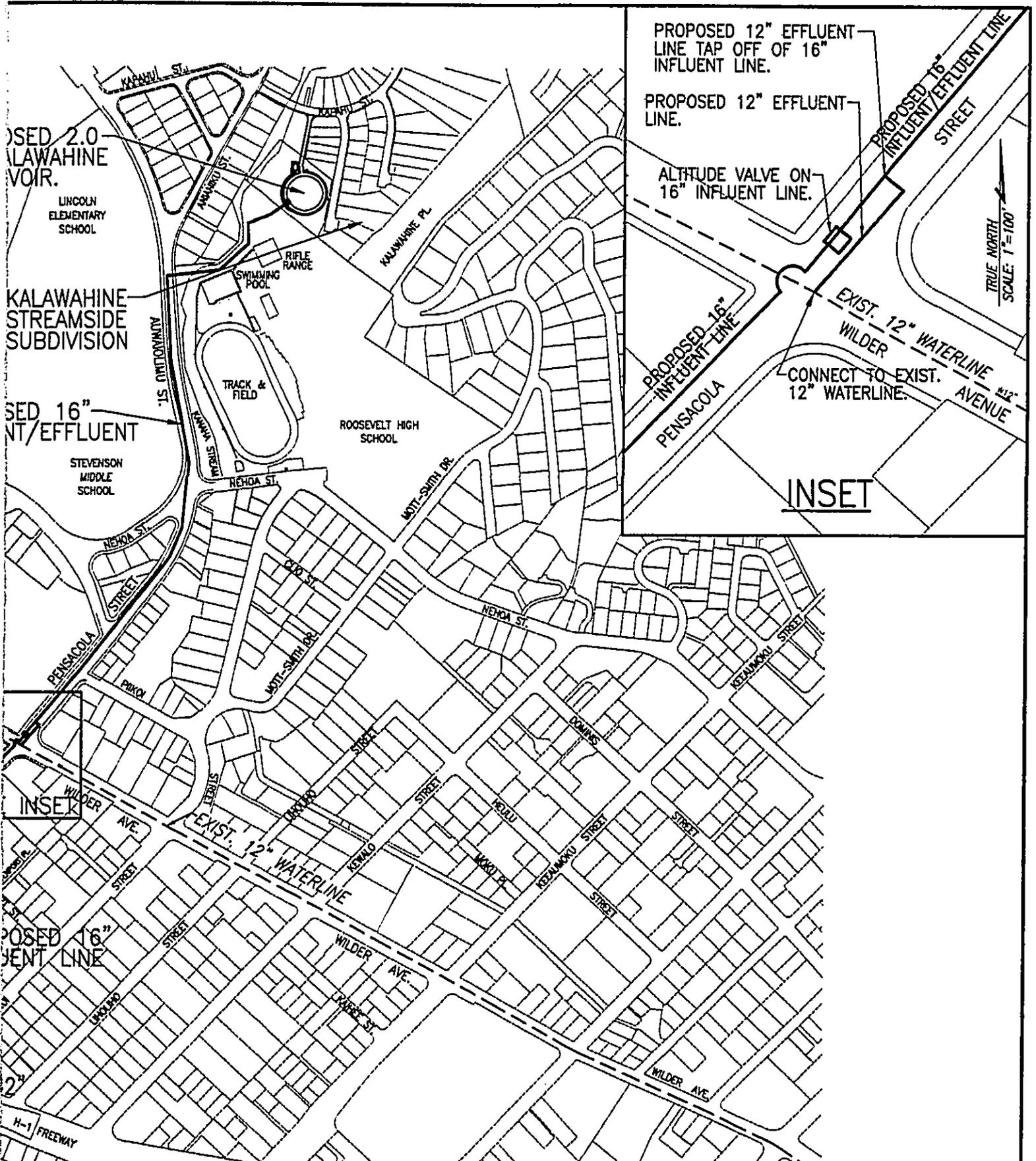
Alternative 1 includes the connection of the Kalawahine reservoir to the existing 42-inch transmission line in Kinau Street and existing 12-inch line in Wilder Avenue with 16-inch and 12-inch lines, respectively. See Figure 5-1. An altitude valve will be installed on Pensacola Street north of Wilder Avenue. The 16-inch influent/effluent line is proposed to start at the reservoir, traverse Roosevelt High School grounds, cross Kanaha Stream, and is installed in Auwaiolimu Street and in Pensacola Street to an existing 42-inch transmission line in Kinau Street.

The 16-inch line will serve the local area by providing water to the proposed 2.0 MG reservoir. Basically, the proposed reservoir will provide an additional storage to the existing 42-inch transmission line in Kinau Street. This will occur when the Beretania Line Booster is off.

TRUE NORTH
SCALE: 1"=500'



SOURCE: FIGURE 4 OF KALAWAHINE 180° RESERVOIR SITE FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.



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WATER SUPPLY

KALAWAHINE 180 RESERVOIR
HONOLULU, OAHU, HAWAII

ALTERNATIVE 1
16" INFLUENT/EFFLUENT LINE

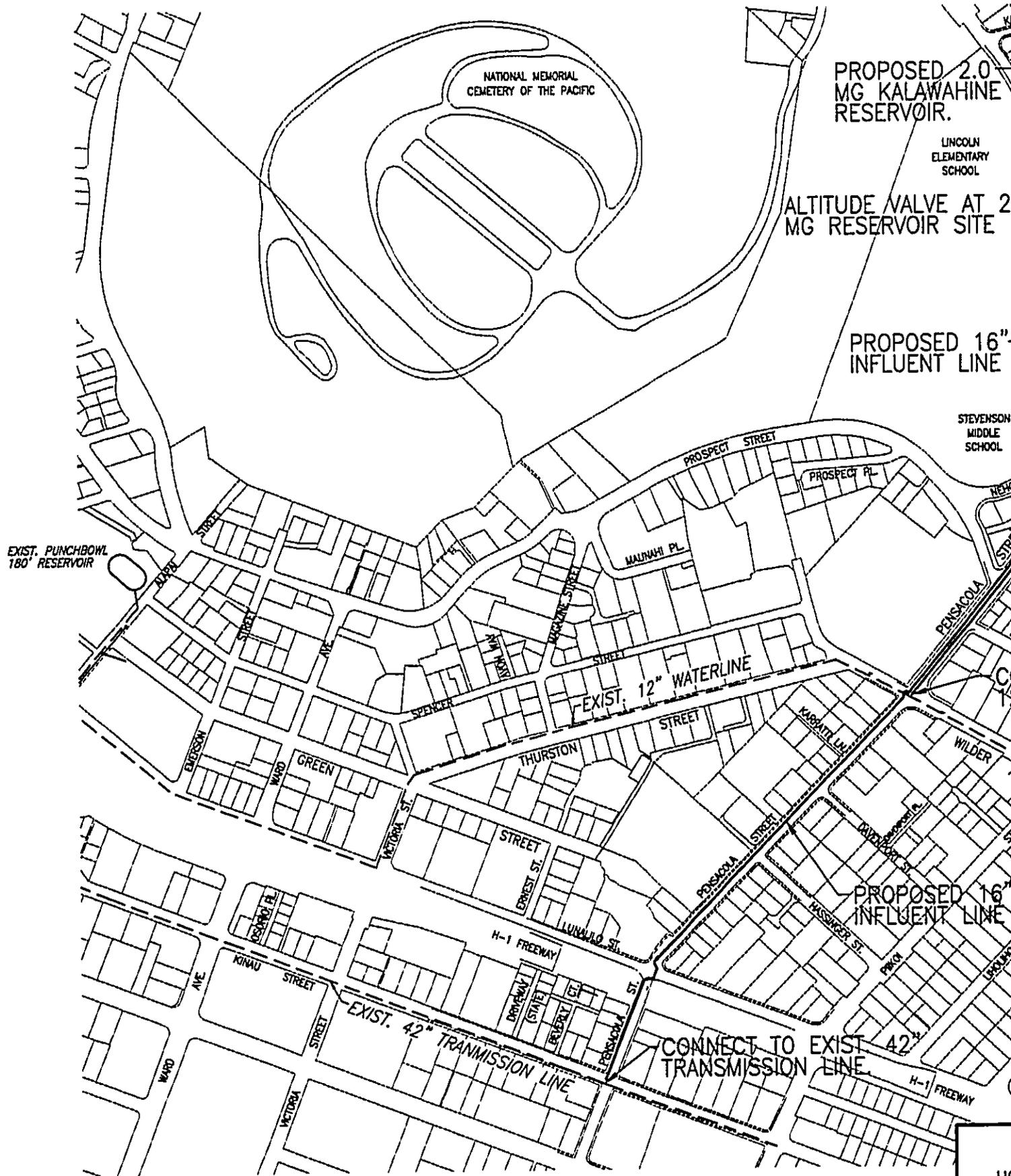


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& Yoshizaki, Inc.
Civil & Structural Engineers

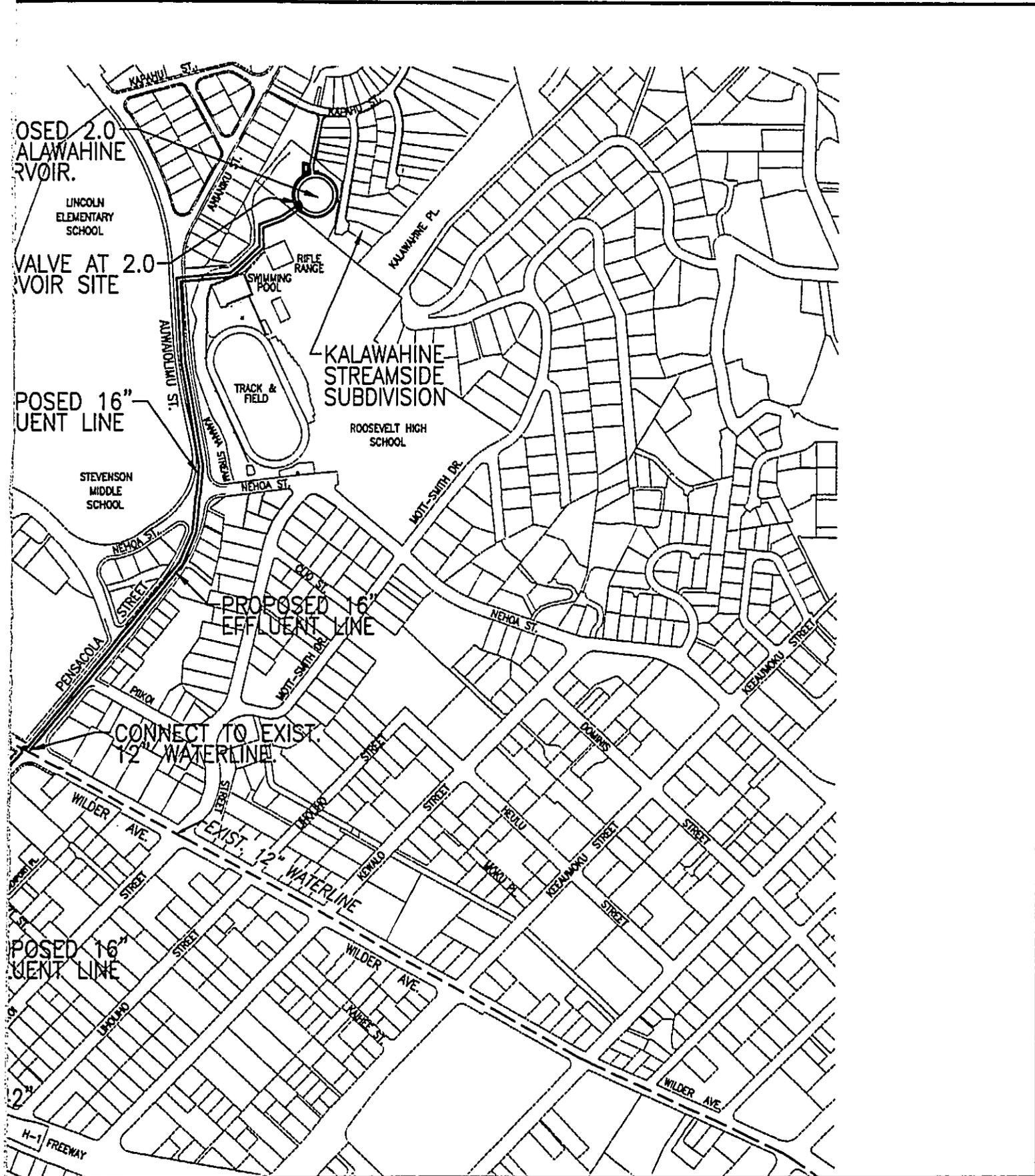
FIGURE

5-1

TRUE NORTH
SCALE: 1"=500'



SOURCE: FIGURE 5 OF KALAWAHINE 180' RESERVOIR SITE FEASIBILITY STUDY BY MITSUNAGA & ASSOCIATES, INC.



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 WATER SUPPLY

KALAWAHINE 180 RESERVOIR
 HONOLULU, OAHU, HAWAII
ALTERNATIVE 2
16" INFLUENT & EFFLUENT LINES

**Shimabukuro, Endo
 & Yoshizaki, Inc.**
 Civil & Structural Engineers

FIGURE
5-2

Alternative 1 will require the relocation of an existing gasline with a new 2-inch gas line or of an existing 6-inch waterline with new 4-inch and 6-inch waterlines for the 16-inch influent line in Pensacola Street between Lunalilo Street and Kinau Street. For both options the relocation of the existing gasline or waterline and the installation of the 16-inch influent line in busy Pensacola Street will affect traffic conditions. Two of the four lanes of Pensacola Street will be closed during the construction of this portion of the influent line. The intersection of Pensacola Street and Kinau Street may require closure when the connection of the influent line to the existing 42-inch transmission line is made.

5.4B 16-Inch Influent & Effluent Lines Alternative 2

Alternative 2 proposes the same 16-inch influent line as Alternative 1 to connect the Kalawahine reservoir to the existing 42-inch transmission line in Kinau Street. In addition, a new 16-inch effluent line is proposed to connect the reservoir back to the existing BWS distribution system. See Figure 5-2. An altitude valve will be installed at the reservoir site. The effluent line will begin at the proposed reservoir and follow the same route as the 16-inch influent line from the reservoir down to Wilder Avenue. The 16-inch effluent line will connect to the existing 12-inch waterline in Wilder Avenue. An adverse impact is the high cost of the 16-inch effluent line from the reservoir to Wilder Avenue.

5.4C 24-Inch Influent/Effluent Line Alternative 3

Alternative 3 will connect the Kalawahine reservoir to the existing BWS system at the existing Punchbowl 180' Reservoir 18-inch influent/effluent line in Alapai Street with a 24-inch influent/effluent line. See Figure 2-6. This connection will effectively add 2.0 MG of storage to the existing Punchbowl 180' Reservoir. The Punchbowl 180' Reservoir supports the Beretania Line Booster that supplies the 42-inch transmission line in Kinau Street. The Kalawahine reservoir will be used more as a regional reservoir instead of a local reservoir with this Alternative.

The 24-inch influent/effluent line would follow the same alignment as the 16-inch influent line of Alternative 1 and 2 from the reservoir to Thurston Avenue (Wilder Avenue). The 24-inch influent/effluent line continues west on Thurston Avenue to Green Street and will connect to the existing 18-inch influent/effluent line in Alapai Street.

In Alapai Street there is an existing 6-inch sewerline located on the Green Street side of Alapai Street and runs parallel to the existing 18-inch influent/effluent line. The sewerline and 18-inch influent/effluent line inverts are within one foot of each other. The sewerline will be adjusted to allow the 24-inch influent/effluent line to be connected to the existing 18-inch influent/effluent line.

Alternative 3 will have negative impacts on traffic along Green Street and Alapai Street. Unlike Thurston Avenue, these streets are only two lanes wide and during construction closure of these streets to vehicular traffic may be required. Also, these streets have either residences or apartments on both sides of the roadway.

Because Alternative 3 will effectively add 2.0 MG of storage to the Punchbowl 180' Reservoir and improve the regional Metro Low West (180') system, this alternative was selected by the BWS for the transmission main for the project.

5.5 Preliminary Estimated Construction Costs

The preliminary estimated construction cost of 2.0 MG ground level reservoir and Alternative 1 waterline is \$6,725,000. The preliminary estimated construction cost of 2.0 MG ground level reservoir and Alternative 2 waterline is \$7,469,000. The preliminary estimated construction cost of 2.0 MG ground level reservoir and Alternative 3 waterline is \$7,104,000. See Appendix A.

CHAPTER VI
DETERMINATION, FINDINGS AND JUSTIFICATION

6.1 Determination

This Final Environmental Assessment is part of the environmental review process to meet the requirements of Chapter 343, HRS. After completing an assessment of the potential environmental effects of the proposed project and consulting with governmental agencies and interested parties, the proposing agency does not anticipate any significant impacts on the environment. A **Finding of No Significant Impact** has been determined for the project with the reasons supporting this determination discussed below.

6.2 Findings and Justification

1. The proposed action will not involve an irrevocable commitment to loss or destruction of any natural or cultural resource. The project site is in urban Honolulu and has been substantially altered from its natural condition. There appears to be no cultural resources associated with the project site.
2. The Proposed action does not curtail the range of beneficial uses of the environment. The proposed project is consistent with the City's General Plan and Zoning Maps and the Board of Water Supply's design standards and will not curtail beneficial uses of the environment in the area. The proposed project will be compatible with the uses of the surrounding area.
3. The proposed action 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. The proposed project is consistent with the State's Land Use Plan and all applicable State policies, goals, and guidelines. No long-term environmental conflicts are foreseen.
4. The proposed action will not substantially affect the economic or social welfare of the community or State. The economy will be affected by short-term, construction related activities with the cash infusion of approximately \$7,104,000 during the construction phase. Upon completion of the project, the economic situation should return to the pre-existing condition.
5. The proposed action will not substantially affect public health. Construction of the project will provide an additional 2.0 MG storage of water in the Metro Low West (180') service area. The proposed action will improve water system performance and reliability in meeting domestic and fire protection needs of the community. The short term negative impacts associated with construction activities such as noise, dust, exhaust emissions, odor, damaged roadways, and traffic congestion will be mitigated by measures included in the project plans and specifications.

6. The proposed action does not involve substantial secondary impacts such as population changes or effects on public facilities. The addition of 2.0 MG water storage to the Metro Low West (180') service area will allow for growth and development of the area to continue in conformance with the existing development plan. Population, traffic, and public facilities may be indirectly affected by this growth and development.
7. The proposed action does not involve a substantial degradation of environmental quality. The existing topography of the reservoir site will be altered by cuts and fills to provide a suitable site for the reservoir tank. The visual environment will be changed. The visual impact will be mitigated by landscape measures to screen the tank included in the project plans and specifications. Residents will be allowed input in developing creative design features, like berms, rock walls, native landscaping, and earth-tone paint to further reduce the visual impacts.
8. The proposed action is individually limited and cumulatively does not have a considerable effect upon the environment or involve a commitment for larger actions. The proposed action, either individually or cumulatively, will have very little effect on the environment and will not involve any commitment for larger actions.
9. The proposed action does not substantially affect rare, threatened or endangered species, or its habitats. There are no known rare, threatened, or endangered species or habitat associated with the project site.
10. The proposed action does not detrimentally affect the air or water quality or ambient noise levels. Short term impacts on air and water quality, as well as noise may occur during the construction period, but will be mitigated by normal construction practices and will be regulated by City and State rules, regulations and permit requirements and by project plans, specifications and City inspectors.
11. The proposed action does not affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters. The proposed project is not located in an environmentally sensitive area. Portion of the reservoir site is in Zone X outside of 500-year flood plain of the FIRM for the area. All reservoir improvements will be constructed above the 100-year storm limit of Kanaha Stream, an intermittent stream. The influent/effluent line crosses Kanaha Stream. To mitigate damage from stormwater flows in Kanaha Stream, the waterline will be installed below the invert of the stream and will be encased in a concrete jacket. The project is not located on unique geologically hazardous lands. It is also not expected to have any significant adverse impacts on fresh or coastal waters.

12. The proposed action does not substantially affect scenic vistas and viewplanes identified in City or State plans for studies. The reservoir site is located in the Punchbowl Special District but outside the core area. A review of public view points from three locations indicated that the proposed action will not have substantial affects on the Punchbowl vistas and viewplanes.
13. The proposed action will not require substantial energy consumption. Energy will be consumed for grading of the project site and for construction of the reservoir and waterline improvements. Energy consuming construction equipment such as backhoes, trucks, compactors, pavers, etc., will be used for these operations. Substantial energy will not be consumed. During operation of the reservoir, energy will be consumed to pump water into the reservoir. Distribution of water to the Metro Low West (180') water system will be by gravity and will not require any external energy.

CHAPTER VII
APPROVALS, PERMITS, ETC.

Prior to the construction of the reservoir and influent/effluent lines, various approvals, permits and agreements will be required.

7.1 Federal Government

The reservoir site construction work will not involve the discharge of dredged or fill material below the ordinary high water mark of Kanaha Stream. Thus, a Department of the Army (DA) permit will not be required for the reservoir site construction work.

The 24-inch influent/effluent line will cross the existing Kanaha Stream. A DA Permit will not be required for construction of the waterline and authorization under the DA Corps of Engineers General or Nationwide Permit is not necessary. In addition, the waterline crossing will not require a Stream Channel Alteration Permit from the Department of Land and Natural Resources.

7.2 State of Hawaii

A Community Noise Control Permit will be required from the DOH for construction activities of the project.

A National Pollutant Discharge Elimination System (NPDES) General Permit will be required from the DOH for discharge of storm waters associated with construction activity and for discharge of hydrotesting waters.

Easements for maintenance and accessibility will be required from the DHHL for the access roadway and from the DOE and DLNR for the 24-inch waterline in the Roosevelt High School property (TMK 2-4-32:1) and adjacent parcel (TMK 2-4-32:2) which are not within the City road rights-of-way.

7.3 City and County of Honolulu

A Building Permit will be required from the Department of Planning and Permitting (DPP) for the reservoir, instrument house, retaining walls and chain link fence.

A Grading Permit will be required from DPP for excavating and filling more than 50 cubic yards of material at the reservoir site.

A Trenching Permit will be required from DPP for trenching within the City and road rights-of-way.

A Connection to the City's Storm Sewer System Permit will be required from DPP if the drainage system for reservoir maintenance operations is connected to the City's storm sewer system.

A Street Usage Permit will be required from DTS for construction work performed in City Streets, highways and roads.

A Development Plan Land Public Facility Map amendment approval will be required from the City Council for redesignation of the reservoir site from Preservation to Public Facility.

A Special District Permit (Minor) and Waiver will be required from DPP for construction of a major above grade water reservoir in the Punchbowl Special District outside of the core area which has a zero-foot height limit.

Public Use and Utility Waivers will be required from DPP if the reservoir, a Type A utility installation, is more than 25 feet in height as permitted within the P-2 General Preservation District.

Traffic management and control plan approval will be required during the construction phase from DPP to control the flow of traffic around work areas in City road rights-of-way.

CHAPTER VIII

REFERENCES

- Char & Associates, Botanical Resources Assessment, Kalawahine 180' Reservoir Site. Honolulu, Hawaii, 1999.
- City and County of Honolulu Department of Planning and Permitting, Land Use Ordinance. Honolulu, Hawaii, 1999.
- City and County of Honolulu Department of Planning and Permitting, Primary Urban Center Development Plan Land Use. Honolulu, Hawaii.
- City and County of Honolulu Department of Planning and Permitting, Zoning Map No. 4. Honolulu, Hawaii.
- City and County of Honolulu, Grading, Soil Erosion and Sediment Control Ordinance. Honolulu, Hawaii.
- Cultural Surveys Hawaii, Archaeological Inventory Survey of the Kalawahine Reservoir Site. Honolulu, Hawaii, 1999.
- Ernest K. Hirata & Associates, Inc., Soil Feasibility Study Kalawahine 180' Reservoir, Papakolea, Oahu, Hawaii. Honolulu, Hawaii, 1999.
- Kwock Associates, Inc., Phase 1 Report Honolulu 180' Regional Reservoir Site Location Study prepared for Board of Water Supply. Honolulu, Hawaii, 1999.
- Mitsunaga & Associates, Inc., Drainage Report for Kalawahine 180' Reservoir. Honolulu, Hawaii, 1999.
- Mitsunaga & Associates, Inc., Kalawahine 180' Reservoir Site Feasibility Study. Honolulu, Hawaii, 2000.
- Ohashi, Tim J., Kalawahine 180' Reservoir Site Wildlife Survey. Honolulu, Hawaii, 1999.
- Pacific Geotechnical Engineers, Inc., Ilimalia Loop Mokapu Boulevard Reconstruction Sewer. Honolulu, Hawaii 2000
- PBR Hawaii, Kalawahine Streamside Final Environmental Assessment prepared for Kamehameha Investment Corporation. Honolulu, Hawaii, 1998.
- Sato & Associates, Inc., Kalawahine Streamside Construction Plans prepared for Kamehameha Investment Corporation. Honolulu, Hawaii 1998.

State Historic Preservation Division, Department of Land and Natural Resources
(correspondence), July 14, 2000.

State of Hawaii Land Use Commission, Land Use District Map 0-13. Honolulu, Hawaii.

United States Department of Agriculture Soil Conservation Service, Soil Survey of Islands of
Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. Washington, D.C., 1972.

APPENDIX A
SUMMARY OF PRELIMINARY
CONSTRUCTION COST ESTIMATES

KALAWAHINE 180 RESERVOIR
SUMMARY OF
PRELIMINARY CONSTRUCTION COST ESTIMATES

ITEM	<u>ALTERNATIVE 1</u> (Altitude Valve at Wilder Avenue) 16" Influent/ Effluent Line	<u>ALTERNATIVE 2</u> (Altitude Valve at Reservoir) 16" Influent & Effluent Lines	<u>ALTERNATIVE 3</u> (Proposed for Project) 24" Influent/ Effluent Line
RESERVOIR	\$3,604,000	\$3,604,000	\$3,604,000
SITE WORK	\$759,000	\$792,000	\$767,000
RETAINING WALLS	\$1,072,000	\$1,072,000	\$1,072,000
INFLUENT LINE	\$1,200,000	\$1,200,000	\$1,661,000
EFFLUENT LINE	\$90,000	\$801,000	\$0
ESTIMATED COST	\$6,725,000	\$7,469,000	\$7,104,000

Source: Appendix J of Kalawahine 180' Reservoir Site Feasibility by Mitsunaga Associates, Inc.

APPENDIX B
COPIES OF PRE-ASSESSMENT RESPONSES



DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
PT. SHAFTER, HAWAII 96858-5440

REF: TO
ATTENTION:

May 1, 2000

Civil Works Technical Branch

Dr. Howard K. Endo, President
Sey Engineers
1126 12th Avenue
Honolulu, Hawaii 96815

Dear Dr. Endo:

Thank you for the opportunity to review and comment on the Kalawahine 180 Reservoir and Transmission Main Project, Honolulu, Oahu (TNK 2-4-34: por. 08). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Any work performed in Kanaha Stream or adjacent wetlands may require a DA permit. For further permit requirements, please contact Mr. Peter Galloway of our Regulatory Branch staff at 438-8416 for further information and refer to file number 200000053.

b. According to the enclosed Federal Emergency Management Agency's Flood Insurance Rate Map, panel number 150001 0120C (dated September 4, 1987), the project site is located in Zone X (unshaded) areas determined to be outside of the 500-year floodplain). For further information regarding the flood zone designation, please contact Ms. Jessie Dobinchick of my Civil Works Technical Branch staff at 438-8876.

Sincerely,

James Pennaz
James Pennaz, P.E.
Chief, Civil Works
Technical Branch

Enclosure



SHIMABUKURO, ENDO & YOSHIZAKI, INC.
Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 8, 2000

Mr. James Pennaz, P.E.
Chief, Civil Works Technical Branch
Department of the Army
U.S. Army Engineer District, Honolulu
FL Shafter, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: Your Response of May 1, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main
File Number 200000053

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comments with regard to the requirement of obtaining a DA permit should the project involve work in the Kanaha Stream or the adjacent wetlands and that the project site is in the Zone X location of the FEMA Flood Insurance Rate Map. We will make the necessary contacts with Mr. Galloway and Ms. Dobinchick when addressing these concerns. Thank you for this information.

if you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo
Howard K. Endo, Ph.D.
President

HKE:sno



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FT SHAFTER, HAWAII 96858-5400

PLEASE TO
ATTENTION OF

October 31, 2000

Regulatory Branch

Mr. Howard K. Endo, President
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816-3715

Dear Mr. Endo:

This responds to a recent telephone inquiry from Ms. Sheryl Nojima concerning Department of the Army (DA) permit requirements for the proposed Kalawahine 180 Reservoir and Transmission Main Project, Honolulu, Hawaii (TMK 2-4-34: por. 08), which will include a utility line crossing of Kanaha Stream. On October 23, 2000, Mr. Peter Galloway and Mr. William Lennan of my Regulatory staff visited the project site and observed that the gulch is dry and does not exhibit an ordinary high water mark.

Based on the project information previously submitted and the additional information obtained during our site visit, I have determined that the proposed work will not affect waters of the U.S., including wetlands, and will therefore not require a DA permit.

If you have any questions regarding this determination, please contact Mr. Peter Galloway of my staff (telephone 438-8416; FAX 438-4060) and refer to File No. 20000053.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Copy Furnished:
Clean Water Branch, State of Hawaii Department of Health,
P.O. Box 3378, Honolulu, HI 96801-3378
Commission on Water Resource Management, State of Hawaii
Department of Land and Natural Resources, P.O. Box 621,
Honolulu, HI 96809
Board of Water Supply, City and County of Honolulu,
630 South Beretania Street, Honolulu, HI 96843

BEAUMONT CASTELLANO
Assistant Secretary



TIMOTHY E. JOHNS
Secretary
BRUCE S. ANDERSON
ROBERT O. DONALD
DAVID L. HIGGA
DAVID M. HIGGA
HERBERT M. RICHARDS, JR.
LINNEE T. NISHIOKA
Deputy Secretary

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 471
HONOLULU, HAWAII 96816
OCT 27 1991

Ms. Sheryl E. Nojima
Project Manager
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue, Room 309
Honolulu, Hawaii 96816

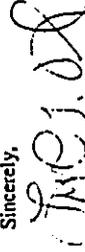
Dear Ms. Nojima:

Request for Stream Channel Alteration Permit Applicability
Kalawahine 180 Reservoir and Transmission Main
Kanaha Stream, Oahu (CMK: 2-4-32-1,2)

This is in response to your facsimile dated, October 17, 2000 requesting a determination of Stream Channel Alteration Permit applicability for the proposed 2.0 mg Kalawahine Reservoir and 24" water main that crosses Kanaha Stream in Honolulu. We have conducted a site inspection of this watercourse in the past and have determined that there is insufficient water to support instream uses. Therefore, this watercourse is not considered to be a "stream" as defined in the Hawaii Revised Statutes §174C-3. A stream channel alteration permit is not required for the work described.

Thank you for consulting us on our permit requirements. Should you have any questions, please contact David Higa of the Commission staff at 587-0249.

Sincerely,


LINNEE T. NISHIOKA
Deputy Director

SKS:sd

BENJAMIN J. CAVETANO
GOVERNOR OF HAWAII



THOMAS E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DOVUTRE
JANET E. GARFIELD

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
2nd Floor, 5th Building, Room 515
501 Kalia Boulevard
Honolulu, Hawaii 96815

AQUATIC RESOURCES
COASTAL AND OCEAN REGULATION
CONSERVATION AND RESOURCES
MANAGEMENT
CONSERVATION
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

June 13, 2000

Howard K. Endo
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Mr. Endo:

SUBJECT: Chapter 6E-8 Historic Preservation Review - Pre-EA Consultation: City & County of Honolulu BWS Kalawahine 180 Reservoir and Transmission Main Project
Honolulu, Kona, O'ahu
TMK: 2-4-34: por. 8; 2-4 various

LOG NO: 25593 ✓
DOC NO: 0006EJ09

Thank you for the opportunity to provide comment for the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir and Transmission Main project. Besides construction of the Kalawahine Reservoir, the BWS proposes to construct a new 16" influent line to serve the Reservoir. The influent line will be placed within Roosevelt High School grounds, Auwailimu Street, and Pensacola Street and connect to the existing 42" line in Kirau Street. A proposed altitude valve on the new 16" influent line and a proposed 12" effluent line will connect at Wilder Avenue. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the project areas.

An archaeological inventory survey conducted for the proposed Kalawahine 180 Reservoir concluded that no significant historic sites were found in the project area and that the single stone wall identified was of modern origin. No historic sites are known within the Pensacola Street corridor. Because the proposed improvements will be undertaken within existing corridors and no significant historic sites have been identified within the project area, and it is unlikely that historic sites will be found, we believe that these improvements will have "no effect" on historic sites.

In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hubbard, Administrator
State Historic Preservation Division

EJ:drum



SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5518

July 3, 2000

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Building, Room 555
601 Kamokila Blvd.
Kapolei, Hawaii 96707

Subject: Your Response of June 13, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your reply of June 13, 2000 to our request for pre-assessment comments regarding possible impacts of the subject project.

Since our initial request, the BWS has changed the transmission main to a 24-inch influent/effluent line located in Roosevelt High School grounds, in Awaiolimu Street, Pensacola Street, Wilder Avenue, Thurston Avenue and Green Street and connecting to the existing Punchbowl 180' Reservoir 18-inch influent/effluent line at Alapai Street. See Figure 3.

Pre-assessment comments are requested regarding possible impacts of the proposed Kalawahine 180 Reservoir and Transmission Main project with the new 24-inch influent/effluent line alignment.

We would appreciate receiving your pre-assessment comments in two weeks or by July 17, 2000. Should you have any questions, please call me at 737-1875.

Very truly yours,

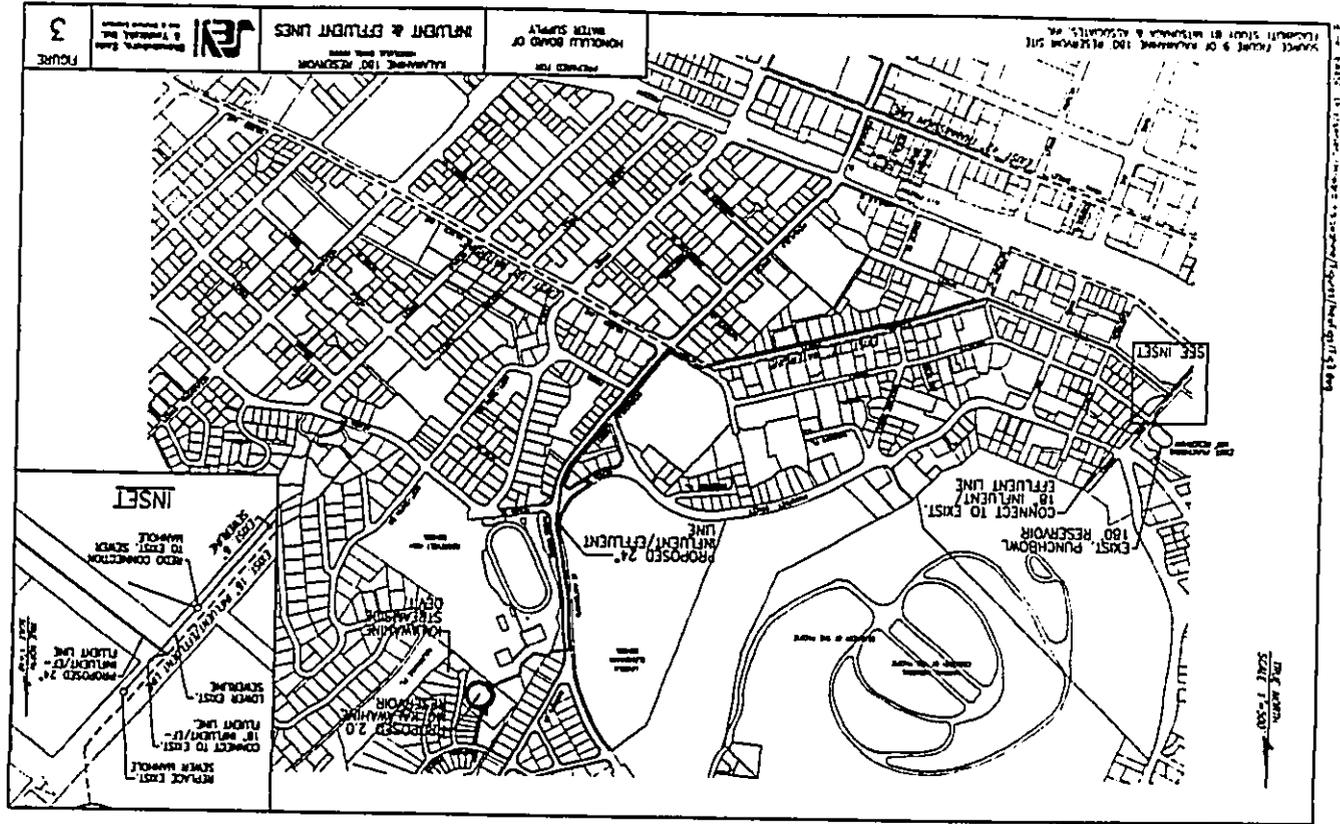
SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo

Howard K. Endo, Ph.D.
President

HKE:sno

Enclosure



141-10000-0000
STATE OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kahuhikaha Building, Room 555
501 Kalia Avenue
Honolulu, Hawaii 96815

THOMAS E. JONES, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
DOROTHY
JANET E. KAWAHO

ADULTIC RESOURCES
BOATING AND OCCUPATIONAL SAFETY
CONSERVATION AND RECREATION
MANAGEMENT
SEA-FORWARD
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

July 14, 2000

Howard K. Endo
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

LOG NO: 25781 ✓
DOC NO: 0007EJ12

Dear Mr. Endo:

SUBJECT: Chapter 6E-8 Historic Preservation Review -REVISED SCOPE for a Pre-EA Consultation: City & County of Honolulu BWS Kalawahine 180 Reservoir and Transmission Main Project
Honolulu, Kona, Oahu, TMK: 2-4-34: por. 8; 2-4 various

Thank you for providing us with the revised plans for the Kalawahine 180 Reservoir and Transmission Main project. The BWS has changed the transmission main, from an earlier proposed 16" waterline to a 24" waterline. The waterline will run from the proposed 2.0 MG Kalawahine reservoir along Auwailimu Street, Pensacola Street, Thurston Avenue and Green Street.

Our previous comments on historic sites remain the same and are reiterated here. No historic sites are known within the proposed Auwailimu Street, Pensacola Street, Thurston Avenue and Green Street corridor. Because the proposed improvements will be undertaken within existing corridors and no significant historic sites have been identified within the project area, and it is unlikely that historic sites will be found, we believe that these improvements will have "no effect" on historic sites.

In the unlikely event that historic sites, including human burials, are uncovered during routine construction activities, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:dnm



SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

July 25, 2000

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Kahuhikaha Building, Room 555
601 Kaimokila Boulevard
Kapolei, Hawaii 96707

Subject: Your Response of July 14, 2000 Regarding the Pre-Assessment Notice for the Board of Water Supply's Proposed Kalawahine 180 Reservoir and Transmission Main Revised Scope

Dear Mr. Hibbard:

Thank you for your reply of July 14, 2000 regarding the revised plans to our request for pre-assessment comments regarding possible impacts of the subject project.

We acknowledge your comments that there are no historic sites known within the proposed Auwailimu Street, Pensacola Street, Thurston Avenue, and Green Street corridor and that it is unlikely historic sites will be found.

In the event historic sites, including human burials, are uncovered during construction, all work will be stopped and the State Historic Preservation Division will be contacted. This requirement will be incorporated into the project's construction's plans and specifications.

Should you have any questions, please call me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo, Ph.D., P.E.
President

HKE:smo

BERNARD J. CADETANO
CONTROLLER



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2380
HONOLULU, HAWAII 96822

PAUL G. LAMARQUEL, Ph.D.
SUPERINTENDENT

OFFICE OF THE SUPERINTENDENT

May 19, 2000

Dr. Howard K. Endo, President
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Dr. Endo:

Subject: Kalawahine 180 Reservoir and Transmission Main Project

The Department of Education (DOE) offers the following pre-assessment comments on the subject project:

1. Noise abatement is a major concern for Roosevelt High, Stevenson Middle, and Lincoln Elementary schools. Punchbowl Crater and the concrete bleachers at the Roosevelt High stadium combine to reflect sounds toward the school properties.
To mitigate this concern, we strongly recommend that the project include the installation of temporary air-conditioning in affected classrooms and offices. The schools have indicated that based on past experiences, air-conditioning has proven to be the most effective method for noise abatement.
2. To the extent possible, we recommend that construction work around the schools take place during periods when the schools are not in session.
3. The DOE requests that once construction commences in 2004, advance notice of any planned traffic or utility disruptions be sent directly to the schools so that students, parents, and staff can make needed adjustments. Notice should be sent to the following schools:

Principal
Roosevelt High School
1120 Nehoa Street
Honolulu, Hawaii 96822

Dr. Howard K. Endo
Page 2
May 19, 2000

Principal
Stevenson Middle School
1202 Prospect Street
Honolulu, Hawaii 96822

Principal
Lincoln Elementary School
615 Auwailimu Street
Honolulu, Hawaii 96813

4. Just prior to construction on the Roosevelt High School campus, we ask that the contractor meet with the school administration to inform them of the project's impacts and to respond to any questions or concerns.

Thank you for the opportunity to comment. If you have any questions, please call Mr. Sanford Beppu at 733-4862.

Very truly yours,

Paul G. Lamarque, Ph.D.
Superintendent of Education

PLaM:hy

cc: P. Yoshioka, DAS
B. Mizuguchi, Stevenson Middle
D. Hokama, Roosevelt High
R. Matsumoto, Lincoln Elementary



SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 24, 2000

Paul G. LeMahieu, Ph.D.
Superintendent of Education
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96840

Dear Mr. LeMahieu:

Subject: Your Response of May 19, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply (BWS) Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

In regards to noise abatement, it has not been the past practice of the BWS to install temporary air-conditioners for several reasons. It would be costly to provide, and the electrical systems for the schools would have to be reviewed. Additional work to the electrical systems may be required before air-conditioners could be installed.

During the design phase, the BWS will have its design consultant investigate phasing the project so that as much of the project near the schools can be constructed when the schools are not in session. We can have the contractor work around the schools' schedules as much as possible and notify the schools prior to construction.

We acknowledge your comments and other concerns with regard to construction work schedule, advance notification of construction commencement and contractor meeting with school administration. We will address these concerns in the environmental assessment.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo
Howard K. Endo, Ph.D.
President

BENJAMIN I. CARTER
GOVERNOR



BRUCE S. JACKSON, Ph.D., MPH
DIRECTOR OF PHE/PH

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

NO. 110553
110553

110553EC.00

November 20, 2000

Mr. Howard K. Endo, President
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, HI 96816-3715

Dear Mr. Endo:

Subject: Utility Line Crossing at Kanaha Stream for the Proposed Kalawahine 180 Reservoir and Transmission Main Project, Honolulu, Island of Oahu
Army File No. 20000053 (TMK: 2-4-34; por 08)

Reference is made to the letter dated October 31, 2000 from Mr. George P. Young, Chief of the Regulatory Branch, Honolulu Engineer District (HED), U.S. Army Corps of Engineers (COE), regarding the subject stream crossing at Kanaha Stream, Kanaha Stream watershed is part of the Ala Wai Canal watershed. Ala Wai Canal is listed by the Department of Health as "Water Quality Limited Segment" in accordance with Section 303(d) of the Federal Clean Water Act.

In compliance with requirements contained in §342D-50(a) of the Hawaii Revised Statutes and §11-54-03 of the Hawaii Administrative Rules (HAR), we recommend that site-specific best management practices should be developed and implemented to isolate and confine the construction activity(ies) and prevent the potential pollutant(s) discharges from entering or reentering State waters. An applicable monitoring and assessment plan shall also be developed and implemented to ensure the compliance of applicable State water quality standards as specified in HAR, Chapter 11-54.

Should you have any questions, please contact Mr. Edward Chen, Engineering Section of the Clean Water Branch, at (808) 586-4309.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

EC:cr

c: Regulatory Branch, COE/HED
CWRM/DLNR
EPO/DOH
BWS/CCH

PHONE (808) 594-1888

FAX (808) 594-1855



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

April 24, 2000

Mr. Howard K. Endo, Ph.D.
President
Shimabukuro, Endo & Yoshizaki, Inc.
Civil & Structural Engineers
1126 12th Avenue
Honolulu, Hawaii 96816

SHIMABUKURO, ENDO
& YOSHIZAKI, INC.
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PC# 89

Subject: Pre-Assessment Comments For The Honolulu Board Of Water Supply
Kalawahine 180 Reservoir And Transmission Main Project

Dear Dr. Endo,

Thank you for the opportunity to provide pre-assessment comments on the above-referenced project. The Office of Hawaiian Affairs offers the following comments and concerns:

- 1) OHA is concerned about possible impacts to historic, cultural and archaeological sites, if any, in the area. We would like to see a complete study done by a qualified firm or individual.
- 2) OHA is concerned about possible impacts to burials, if any, within the project area. We would like to see a survey and mitigation plan enclosed in your draft.
- 3) OHA is concerned about how the traffic congestion and noise will affect the community. What are your plans to address these issues?
- 4) An addition of 2 million gallons of storage capacity to a system which has a 55 million gallon deficit seems very small. Will the inconvenience to the community be worth the 2 million gallons?

Mr. Howard K. Endo, Ph.D.
April 24, 2000
Page 2

Please address these comments and concerns in writing and we look forward to reviewing your forthcoming draft environmental assessment. If you have any questions, please contact Ken R. Salva Cruz, Policy Analyst, at 594-1847.

Sincerely,

Colin C. Kippen, Jr.
Deputy Administrator

cc: Board of Trustees
OEQC



SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 1, 2000

Mr. Colin C. Kippen, Jr.
Deputy Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Blvd., Suite 500
Honolulu, Hawaii 96813

Dear Mr. Kippen:

Subject: Your Letter of April 24, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your letter regarding the Pre-Assessment Notice to the Kalawahine 180 Reservoir project.

We provide the following response to your concerns:

1. An archaeological inventory survey of the Kalawahine Reservoir site was performed by Cultural Surveys Hawaii in 1999. The survey concluded the absence of significant sites within the project area and recommended no further archaeological work within the project area. A copy of this report will be included in the Environmental Assessment.
2. The Cultural Surveys Hawaii archaeological inventory survey of 1999 found no significant sites at the reservoir site. However, in the event burials are encountered during construction, all construction activities in the area of concern will be halted and the State Historic Preservation Division notified immediately in accordance with Chapter 6E-43.6 and a burial treatment plan will be developed at that time. The burial treatment plan will include consultation with appropriate parties.
3. Construction and traffic control plans will be prepared to minimize disruptions and inconvenience to residents in Papakolea. Appropriate signs and barriers will be provided to allow safe traffic flow and pedestrian access.

Mr. Colin C. Kippen, Jr.
May 1, 2000
Page 2

4. In regards to noise, the contractor will be required to comply with the provisions of Chapter 46, "Community Noise Control," and Chapter 42, "Vehicular Noise Control for Oahu," of Title 11, Administrative Rules, State of Hawaii Department of Health. If needed, the contractor will be required to obtain a permit from the Department of Health in order to exceed the maximum permissible sound level of 55 dBA for residential areas.

5. The Board of Water Supply is responsible for managing and operating Oahu's public water system and providing a safe and reliable water supply for island residents. Reservoirs are essential components of the water system that provide storage for daily consumption and emergencies. During a water main break, the stored water is consumed by the public allowing Board of Water Supply crews to repair the break with minimal interruption in service. During fires, the stored water is used for fire fighting. Any additional storage to the Honolulu system would be beneficial for meeting these needs given the large storage deficit in Honolulu.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo, Ph.D.
President

HKE:sno

BRUNARD C. SOON
CHAIRMAN
HAWAIIAN HOMES COMMISSION



STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOMELANDS
P.O. BOX 1879
HONOLULU, HAWAII 96818

BRUNARD C. SOON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

Dr. Howard K. Endo
May 2, 2000
Page 2

May 2, 2000

Howard K. Endo, Ph.D./President
SHIMABUKURO, ENDO & YOSHIYAKI, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Dr. Endo:

Subject: Environmental Assessment: Kalawahine 180 Reservoir

Following are Department of Hawaiian Home Lands (DHHL) pre-assessment suggestions requested in your letter of April 18, 2000:

1. Please provide a copy of the Honolulu 180' Regional Reservoir Site Location Study which explains the role of the proposed reservoir in the overall water system.
2. The draft assessment should describe the need for the proposed facility, the alternatives considered to fulfill the need, and the authority under which that project would be implemented. We understand that Executive Order No. 1529 set aside the property for the location of a water shaft, pump station and tunnel; it may need to be amended to include a reservoir.
3. Discuss the project schedule, construction costs, and funding sources. Describe the size, shape, and composition of the proposed reservoir, how it will be sited on the property, and its position relative to homes and other improvements in the immediate vicinity. Provide adequate maps and renderings. View plane analyses should be incorporated to show impacts upon nearby homes. Describe masking techniques, such as color blending and landscaping, which would be used to minimize visual impacts.

4. Incorporate "Best Management Practices" to minimize erosion and soil runoff. Describe measures to minimize air quality degradation and noise impacts. Construction activity hours should allow families "quiet enjoyment" of their homes on weekends and between 6:00 p.m. and 6:00 a.m. during weekdays.
5. Coordinate plans for site access with the DHHL. Describe safety measures to protect children from construction activity dangers and to secure the site during non-working hours.
6. Discuss design and construction requirements that will assure safety in case of a leak or breach in the reservoir.
7. Work on the project should be scheduled to minimize conflict with pedestrian and vehicular traffic from households during the peak traffic hours.
8. Describe your plan to provide information to the local residents and the means available to them to express any concerns or make suggestions. The DHHL is willing to assist in arranging meetings with the homestead community. Please provide a contact person and telephone/fax numbers.

Thank you for the opportunity to provide preliminary comments. Please include the DHHL as a party to be consulted during the duration of this project. If you have any questions, please call Darrell Yagodich of our Planning Office at 586-3836.

Aloha,

Brunard C. Soon, Chairman
Hawaiian Homes Commission



SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Civil & Structural Engineers
1128 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 23, 2000

Mr. Raymond C. Soon
Chairman
Hawaiian Homes Commission
P.O. Box 1879
Honolulu, Hawaii 96805

Subject: Your Response of May 2, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comments and concerns and we will address them in the environmental assessment. The Honolulu Board of Water Supply has been informed of your request for the Honolulu 180' Regional Reservoir Site Location Study. We understand the referenced document has not been finalized.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo

Howard K. Endo, Ph.D.
President

HKE:sno

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

655 SOUTH KING STREET, SUITE 200, HONOLULU, HAWAII 96813
TELEPHONE (808) 523-4818 FAX (808) 523-4874 INTERNET www.hawaii.gov/dpp



RANDALL K. FUJIKI, AIA
DIRECTOR

HOWARD K. ENDO
PRESIDENT

2000/CLOG-2534(GU)

May 2, 2000

Mr. Howard K. Endo
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Mr. Endo:

Request for Pre-Environmental Assessment Comments
BWS' Kalawahine 180 Reservoir and Transmission Main;
Tax Map Key 2-4-34- p01.8

Thank you for your April 18, 2000, notice of Environmental Assessment preparation for the above project.

At this preliminary stage, we note that City Council approval of a Development Plan Public Facility (DPPF) map amendment will be required for the project. Further, since the proposed reservoir site is located within the Punchbowl Special District with a zero-foot height limit, approval of a Special District (minor) permit and possibly a waiver from this department will also be required.

We look forward to reviewing the Environmental Assessment upon its completion, and request that five (5) copies of the document be forwarded to our department to facilitate timely review.

Should you have any questions regarding DPPF map amendment procedures, please contact Randy Hara of our Long Range Planning Division at 523-4483. Questions regarding the Special District permit can be addressed to Geri Ung of our Land Use Permits Division at 527-6044.

Sincerely yours,


for
RANDALL FUJIKI, AIA
Director of Planning and Permitting

RKF:am
POSSE Dec 31/13



SHIMABUKURO, ENDO & YOSHIZAKI, INC.
Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 3, 2000

Mr. Randall K. Fujiki, AIA
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Your Response of May 2, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comments with regard to approvals required for a Development Plan Public Facility map amendment, Special District (minor) permit, and a waiver from the Department of Planning and Permitting relative to the zero-foot height limitations for this project.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.


Howard K. Endo, Ph.D.
President

HKE:sno

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PINE PLAZA • 711 KAPOLANI BOULEVARD SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 522-4533 • FAX: (808) 523 4730



JEREMI HARRIS
DIRECTOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MULLIN, JR.
DEPUTY DIRECTOR

TP4/00-01918R

May 22, 2000

Howard K. Endo, Ph.D.
President
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Dr. Endo:

Subject: Kalahahine 180 Reservoir and Transmission Main Project

In response to your April 18, 2000 letter, the project information provided was reviewed. The following comments are provided for your consideration as you prepare the environmental assessment:

1. The movement of large construction vehicles should be limited during peak traffic hours.
2. The parking of construction equipment on-street should be limited, especially in residential areas.
3. This department should be informed of the construction activities and scheduling prior to their commencement. We can then alert Oahu Transit Services of the construction activity.

Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

CHERYL D. SOON
Director



SHIMABUKURO, ENDO & YOSHIZAKI, INC.
Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 24, 2000

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Subject: Your Response of May 22, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalahahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comments regarding limiting the movement of construction vehicles during peak traffic hours and on-street parking of construction equipment, especially in residential areas. Prior to the commencement of construction activities, the Department of Transportation Services will be notified so that it can alert Oahu Transit Services.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo, Ph.D.
President

HKE:sno

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOA PAKA STREET, SUITE H425
HONOLULU, HAWAII 96816



JEFFREY M. WARD
FIRE CHIEF

ATTILIO K. LEONARDI
FIRE CHIEF
JOHN CLARK
DEPUTY FIRE CHIEF

May 2, 2000

Howard K. Endo, Ph.D.
President
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue
Honolulu, Hawaii 96816

Dear Dr. Endo:

We received your letter dated April 18, 2000, regarding the environmental assessment for the Kalawahine 180 Reservoir and Transmission Main Project.

The Honolulu Fire Department requests that you comply with the following:

1. Maintain fire apparatus access throughout the construction site for the duration of the project.
2. Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

Sincerely,

ATTILIO K. LEONARDI
Fire Chief

AKL/KS:jo



SHIMABUKURO, ENDO & YOSHIZAKI, INC.
Civil & Structural Engineers
1126 12th Avenue, Honolulu, Hawaii 96816
Ph: (808) 737-1875 Fax: (808) 734-5516

May 8, 2000

Mr. Attilio K. Leonard
Fire Chief
Fire Department
City and County of Honolulu
3375 Koa Paka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Mr. Leonard:

Subject: Your Response of May 2, 2000 Regarding the
Pre-Assessment Notice for the
Board of Water Supply's Proposed
Kalawahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comments with regard to the requirements of maintaining necessary fire apparatus access throughout the construction site and notification of the Fire Communication Center of any interruption of existing fire hydrant system for the duration of the project.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo, Ph.D.
President

HKE:sno



SHIMABUKURO, ENDO & YOSHIZAKI, INC.
 Civil & Structural Engineers
 1126 12th Avenue, Honolulu, Hawaii 96816
 Ph: (808) 737-1875 Fax: (808) 734-5518

May 1, 2000

Shimabukuro, Endo & Yoshizaki, Inc.
 1126 12th Avenue
 Honolulu, Hawaii 96816

Attention: Mr. Howard K. Endo, Ph.D.

Gentlemen:

Subject: Pre Assessment Comments for the Proposed
 Kalawahine 180 Reservoir and Transmission Main Project

Please be advised that The Gas Company maintains underground utility gas mains in the project vicinity, which serves commercial and residential customers in the area. We would appreciate your consideration during the project planning and design process to minimize any potential conflicts with the existing gas facilities in the project area.

Thank you for the opportunity to comment on the proposed project. Should there be any questions, or if additional information is desired, please call me at 594-5570.

Very truly yours,

Charles Calvet, P.E.
 Manager, Engineering

May 3, 2000

Mr. Charles Calvet, P.E.
 Manager, Engineering
 The Gas Company
 P.O. Box 3000
 Honolulu, Hawaii 96802-3000

Dear Mr. Calvet:

Subject: Your Response of May 1, 2000 Regarding the
 Pre-Assessment Notice for the
 Board of Water Supply's Proposed
 Kalawahine 180 Reservoir and Transmission Main

Thank you for your response regarding the Pre-Assessment Notice for the proposed reservoir project.

We acknowledge your comment with regard to The Gas Company utility mains in the project vicinity. The Gas Company will be appraised during all phases of the planning and design phases to minimize any conflicts of existing gas facilities in the project area.

If you have any questions, please me at 737-1875.

Very truly yours,

SHIMABUKURO, ENDO & YOSHIZAKI, INC.

Howard K. Endo, Ph.D.
 President

HKE:sno

APPENDIX C

COPIES OF DRAFT ENVIRONMENTAL ASSESSMENT RESPONSES



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

January 11, 2001

Civil Works Technical Branch

Dr. Sheryl E. Nojima
Shimabukuro, Endo and Yoshizaki
1126 12th Avenue, Room 309
Honolulu, Hawaii 96816

Dear Dr. Nojima:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu (TMKS 2-4-32: 1, 2, 14, 17, 18, 30, 32; and, 2-1-39). We do not have any additional comments to offer beyond those previously provided in our letters dated May 1, 2000 and October 31, 2000 (file number 2000000053).

If you require additional information, please feel free to contact Ms. Jessie Dobinchick of our Civil Works Technical Branch staff at (808) 438-8876.

Sincerely,

Stanley Boc
Acting Chief, Civil Works
Technical Branch

COPY

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
530 SOUTH BERETANIA STREET
HONOLULU, HI 96813



March 6, 2001

Mr. Stanley Boc, Acting Chief
Civil Works Technical Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Honolulu, Hawaii 96858-5440

Dear Mr. Boc:

Subject: Your Letter of January 11, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu, TMKS: 2-4-34: 08, 2-4-32: 01, 02, 14, 17, 18 and 30; 2-1-39

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir Project.

We acknowledge that you do not have any additional comments to offer.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, SEY Engineers

EDUARDO J. CASTILANO
GOVERNOR OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhewa Building, Room 555
601 Kamohala Boulevard
Kapolei, Hawaii 96707

January 16, 2001

Kathryn Fujikami
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96814

Dear Ms Fujikami:

SUBJECT: Chapter 6E-8 Historic Preservation Review Draft Environmental Assessment (DEA): City & County of Honolulu BWS Kalawahine 180 Reservoir and Transmission Main Project
Honolulu, Kona, O'ahu
TMK: 2-4-34: pgs. 8; 2-4 various

LOG NO: 26775
DOC NO: 0101E104

Thank you for the opportunity to comment on the DEA for the proposed Kalawahine 180 Reservoir and Transmission Main project. The DEA incorporates our earlier comments that the archaeological inventory survey conducted for the proposed Kalawahine 180 Reservoir concluded that no significant historic sites were found in the project area. Also, no historic sites are known or likely to be present within the Auwailimu Street, Pensacola Street, Thurston Avenue, and Green Street corridors. Because the proposed improvements will be undertaken within existing corridors and no significant historic sites have been identified within the proposed reservoir site, it is unlikely that historic sites will be found and we believe that these improvements will have "no effect" on historic sites.

The DEA may want to include in Appendix B, our earlier comments on the archaeological survey results which are referred to in our letter to Shimabukuro, Endo & Yoshizaki, Inc. included in Appendix B.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

El/jk

c: Sheryl E. Nojima, Shimabukuro, Endo & Yoshizaki, Inc., 1126 12th Avenue, Honolulu, Hawaii 96816
OEQC, 235 S. King Street, State Office Tower, Suite 702, Honolulu, HI 96813

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813



February 2, 2001

Mr. Don Hibbard, Administrator
State Historic Preservation Division
State of Hawaii
Kakuhewa Building, Room 555
601 Kamohala Boulevard
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

Subject: Your Letter of January 16, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu, TMK: 2-4-34: 08, 2-4-32: 01 and 02, 2-4-32, 30, 18, 17 and 14; and 2-1-39

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir project.

We acknowledge that the proposed project should have "no effect" on historic sites since construction activities will be undertaken within existing corridors and no significant historic sites have been identified within the reservoir site. Your previous comments of June 13, 2000 on the archaeological inventory survey will be included in Appendix B of the Final EA.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD JAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, SEY Engineer

JERRY HUNTER, LVP
BOB FLORES, LVP
CHARLES A. YITTO, LVP
JAN HILLY, AUM
MONTEY S.K. MAOPUA, EA
BARBARA EMI STANTON
KAZU HAYASHIDA, EA-Office
ROSS S. SASAMURA, EA-Office
CLIFFORD S. JAMILE
Manager and Chief Engineer

KEULUMU J. GATTIARO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF EDUCATION
PO BOX 2180
HONOLULU, HAWAII 96843

PAUL G. LEMAHIEU, Ph.D.
SUPERINTENDENT

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843



February 2, 2001

JORDAN HARRIS, Secretary
COPY
EDDIE FLORES, Director
CHARLES A. STEIN, Vice Director
JAN KELLY, AUM
HONORI S.K. KADUNA, SR.
BARBARA LUNA STANTON
KAZUHIYASHIMA, E-Office
ROSS S. SASAKURA, E-Office
CLIFFORD S. JAMILE
Manager and Chief Engineer

OFFICE OF THE SUPERINTENDENT

January 17, 2001

Ms. Kathryn Fujikami
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Ms. Fujikami:

Subject: Kalahahine 180 Reservoir - Draft Environmental Assessment

The Department of Education has no additional comment on the subject project.

Thank you for the opportunity to respond.

Very truly yours,

Paul G. LeMahieu, Ph.D.
Superintendent of Education

PLeM:hy

cc: P. Yoshioka, DAS
G. Salmonson, OEQC
S. Jojima, Shimabukuro, Endo & Yoshizaki, Inc.

Paul G. LeMahieu, Ph.D., Superintendent
Department of Education
State of Hawaii
P. O. Box 2360
Honolulu, Hawaii 96804

Dear Dr. LeMahieu:

Subject: Your Letter of January 17, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu. TMK: 2-4-34-08; 2-4-32-01 and 02; 2-4-32-30, 18, 17 and 14; and 2-1-32

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir Project.

We acknowledge that you have no comments on the subject project.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, Shimabukuro, Endo & Yoshizaki Engineers, Inc.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Per Office - our contact need - use if needs



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

BRUCE S. ANDERSON, M.D., M.P.H.
DIRECTOR OF HEALTH

BY COPY PLEASE REFER TO

01-001

January 31, 2001

Sheryl E. Nojima, Ph.D., P.E.
Project Manager
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue, Room 309
Honolulu, Hawaii 96816-3715

Dear Dr. Nojima:

This is in reference to the Draft Environmental Assessment for the Kalawabine 180 Reservoir, Honolulu, Oahu, Hawaii, TMK: 2-4-34: 08; 2-4-32: 01 and 02; 2-4-32, 30, 18, 17 & 14; 2-1-39.

Section 3.11, Noise, on page 30 of the Draft Environmental Assessment, condition (2) of the required permit conditions for construction activities should be stated as follows:

"(2) No permit shall allow construction activities creating excessive noise when measured at or beyond the property line of the construction site for the hours before 9:00 a.m. and after 6:00 p.m. on Saturdays."

With regard to sections 3.11 and 4.1G, Noise, on pages 30 and 43 of the Draft Environmental Assessment, Chapter 11-42, Hawaii Administrative Rules, "Vehicular Noise Control for Oahu," was repealed on 6/28/00.

Should there be any questions on this matter, please contact Russell S. Takata, Program Manager, Noise, Radiation and Indoor Air Quality Branch at 586-4700.

Sincerely,

GARY GILL

Deputy Director
Environmental Health Administration

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERTANNA STREET
HONOLULU, HI 96843



April 4, 2001

Mr. Gary Gill, Deputy Director
Environmental Health Administration
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Gill:

Subject: Your Letter of January 31, 2001 to Shimabukuro, Endo & Yoshizaki, Inc., Regarding the Draft Environmental Assessment for the Proposed Kalawabine 180 Reservoir Project, Honolulu, Oahu, TMK: 2-4-34: 08; 2-4-32: 01 and 02; 2-4-32, 30, 18, 17 and 14; and 2-1-39

Thank you for your letter regarding the Draft Environmental Assessment for the proposed Kalawabine 180 Reservoir project.

Sections 3.11 and 4.1G of the Final Environmental Assessment will be revised to state that no permit shall allow construction activities creating excessive noise when measured at or beyond the property line of the construction site for the hours before 9:00 a.m. and after 6:00 p.m. on Saturdays. We note that Chapter 11-42, HAR, "Vehicular Noise Control for Oahu," was repealed on June 28, 2000.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

CLIFFORD S. JAMILE

Manager and Chief Engineer

cc: Sheryl Nojima, SEY Engineers

RENTY HARRIS, MGR
EDGE FLOORING, INC.
CHARLES W. HARRIS, PRES
JANUARY, A.M.
HERBERT S. KANONIA, SA
BARBARA NEI STANTON
BRUNO L. UMUALI, E-ORINA
ROSS S. SAUBERER, E-ORINA
CLIFFORD S. JAMILE
Manager and Chief Engineer

MOULDER & CATTANO
ATTORNEYS



COPY

BRUCE S. JACOBSON, PH.D., M.P.H.
DIRECTOR OF HEALTH

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

IN THE MATTER OF THE
EPA/0008

01034PKP.01

January 12, 2001

Mr. Clifford S. Jamile
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 Beretania Street
Honolulu, HI 96843

Attention: Ms. Kathryn Fujikami

Dear Mr. Jamile:

Subject: Draft Environmental Assessment
Kalawahoie 180 Reservoir

The Clean Water Branch has reviewed the subject submittal dated December 29, 2000 and has the following comments:

1. The Army Corps of Engineers should be contacted to identify whether a Federal permit (including a Department of Army permit) is required for the construction project. If it is determined that a Federal permit is required for the subject project, then a Section 401 Water Quality Certification would also be required from our office.
2. If the construction project involves any of the following discharges into Class A or Class II State waters, a National Pollutant Discharge Elimination System (NPDES) general permit is required for each activity:
 - a. Storm water runoff associated with construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area;

[Note: After March 10, 2003, NPDES general permit coverage will be required for discharges of storm water associated with construction activities, including clearing, grading, and excavation that result in the disturbance of one (1) acre or more.]

Mr. Clifford S. Jamile
January 16, 2001
Page 2

- b. Hydrotesting water, and
- c. Construction dewatering effluent;

Notices of Intent (NOI) for NPDES general permits should be submitted at least 30 days before the discharge is to occur. NOI and NPDES individual permit application forms can be downloaded from our website at <http://www.state.hi.us/doh/eh/cwb/forms/index.html>.

Should you have any questions, please contact Ms. Kris Poenitis, Engineering Section of the Clean Water Branch, at 586-4309.

Sincerely,

Thomas E. Arizumi

THOMAS E. ARIZUMI, P.E., CHIEF
Environmental Management Division

KP:cr

c: OEQC
Sheryl Nojima, Shimabukuro, Endo & Yoshizaki, Inc.

BENJAMIN J. CAVETANO
Chairman



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
STATE 102
HONOLULU, HAWAII 96813
TELEPHONE (808) 588-4185
FACSIMILE (808) 588-4189

GENEVIEVE SALMONSON
DIRECTOR

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



March 14, 2001

JEREMY HARRIS Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
JAMIE LY, ALAN
HERBERT S. K. KADOPUA, SR.
BARBARA KON STANTON
BRIAN K. UHAIWA, Ex-Officio
ROSS S. SASAKURA, Ex-Officio
CLIFFORD S. JAMILE
Manager and Chief Engineer

February 7, 2001

Mr. Clifford Jamile
City and County of Honolulu
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Jamile:

The Office of Environmental Quality Control (OEQC) has reviewed the draft environmental assessment (DEA) for the Kalawahine 180 Reservoir, Honolulu, Tax Map Keys 2-4-34-08, 2-4-32, parcels 01, 02, 14, 17, 18 and 30; and 2-1-39, and offers the following comment for your consideration.

- *Mitigation Measures - Construction Scheduling to Minimize Noise Impacts to the Surrounding Schools.*
Please consult with the Department of Education to set up a construction schedule which will minimize noise impacts to students and teachers in school (e.g., scheduling construction during summer months).

Thank you for the opportunity to comment. If there are any questions, please call Leslie Segundo, Environmental Health Specialist at (808) 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

copies: Dr. Sheryl Nojima, Shimabukuro, Endo and Yoshizaki, Inc.
Kathryn Fujikami, Board of Water Supply

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Your Letter of February 7, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu. IMK: 2-4-34: 08, 2-4-32: 01, 02, 14, 17, 18 & 30; and 2-1-39

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir project.

Construction activities will be coordinated with the Department of Education to minimize impacts to surrounding schools.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Dr. Sheryl Nojima, SEY Engineers

REYNOLDS I. CANTLAND
Commissioner
City and County of Honolulu



STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
PO BOX 1879
HONOLULU, HAWAII 96813

RAYMOND C. SOON
Chairman
Hawaiian Homes Commission
JOSE M. M. TAMAGUCHI
Secretary to the Chairman

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



March 22, 2001

JEREMY HARRIS, Mayor
EDDIE FLORES, Jr., Chairman
CHARLES A. STED, Vice-Chairman
JANUARY ANN
HERBERT S.K. TAOPUA, SR.
BARBARA KIM STANTON
BRIAN K. IMAI, Executive Director
ROSS S. SAGAMURA, Executive Director
CLIFFORD S. JAMILE
Manager and Chief Engineer

February 5, 2001

Ms. Kathryn Fujikami
Honolulu Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Ms. Fujikami:

Subject: Draft Environmental Assessment for Proposed
Kalawahine 180 Reservoir

Thank you for allowing our review of the subject report
dated December 2000.

We note that a new tax map plat has been issued for the
project area: the reservoir parcel is identified as Tax
Map Key 2-4-43: 82 and the proposed access road will be on
Tax Map Key 2-4-43: portion of 90. (see attached)

While there is some discussion and diagrams depicting the
reservoir outside of the Kanaha Stream 100-Year Flood
Limit, nothing is mentioned about the capacity of the
concrete dam to withstand seismic activity and the
estimated adverse impacts if a breach were to occur.

If you have any questions regarding our comments, please
call Noel Akamu of our Land Management Division at 587-
6429.

Aloha,

Raymond C. Soon
Raymond C. Soon, Chairman
Hawaiian Homes Commission

Enclosure

c: Office of Environmental Control
Shimabukuro, Endo & Yoshizaki, Inc.

Mr. Raymond C. Soon, Chair
Hawaiian Homes Commission
Department of Hawaiian Home Lands
P. O. Box 1870
Honolulu, Hawaii 96805

Dear Mr. Soon:

Subject: Your Letter of February 5, 2001 Regarding the Draft Environmental
Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu,
Oahu. TMK: 2-4-34: 08, 2-4-32: 01 and 02; 2-4-32, 30, 18, 17 and 14; and 2-1-1-32

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180
Reservoir project.

We have the following comments to your concerns:

1. We acknowledge that a new tax map plat has been issued for the project area. The
reservoir parcel is identified as Tax Map Key (TMK) 2-4-43: 82 and the proposed access
road will be on TMK: 2-4-43: Portion 90.
2. The reservoir will be designed to withstand larger earthquakes than required by
government regulations through the City and County of Honolulu's Building Code. The
proposed Kalawahine reservoir will be designed and constructed according to the Building
Code's Seismic Zone 3, although the entire island of Oahu is classified at a lower
standard, Seismic Zone 2A. The water reservoir provides for the public health and safety
of Honolulu's consumers and, therefore, higher design standards apply.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

Clifford S. Jamile

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, Shimabukuro, Endo & Yoshizaki, Inc.

BENJAMIN J. CAYETANO
GOVERNOR



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

January 31, 2001

HWY-PS
2.1603

Ms. Sheryl E. Nojima
Project Manager
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue, Room 109
Honolulu, Hawaii 96816-3715

Dear Ms. Nojima:

Subject: Draft Environmental Assessment for Proposed Kalawahine 180 Reservoir
Honolulu, Hawaii Near Roosevelt High School

TMK: 2-4-34:08
2-4-32:01 and 02
2-4-32, 30, 13, 17 and 14
2-1-39

Thank you for transmitting the subject document for our review and comments.

The proposed Board of Water Supply water reservoir near Roosevelt High School will not adversely impact our State Highway facilities. However, we will require the submittal, coordination and approval of construction plans for any work done within our State Highway rights-of-way.

Questions may be directed to Mr. Ronald Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

Brian K. Minaai
BRIAN K. MINAAI
Director-Designate of Transportation

BRIAN K. MINAAI
DIRECTOR
DEPUTY DIRECTORS
GLENN M. OKAMOTO
JANINE Y. IMAIYAMA

WE REPLY REFER TO

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
830 SOUTH BERTANNA STREET
HONOLULU, HI 96843



April 23, 2001

Mr. Brian K. Minaai, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Minaai:

Subject: Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu, TMK: 2-4-34: 08, 2-4-32: 01 and 02, 2-4-32, 30, 13, 17 and 14; and 2-1-39

Thank you for your letter regarding the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir project.

We acknowledge that the proposed project will not adversely impact any State Highway facilities. Construction drawings will be submitted for your review and approval for any work done within the State Highway rights-of-way.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

Clifford S. Hamile
CLIFFORD S. HAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, SEY Engineers

SHERRY HARRIS, Mayor
CODE FLOOR
CHARLES HEDGECOCK
JAN HILY
HERBERT K. KAOPUA, SR.
BARBARA ICHI STANTON
BRIAN K. MINAAI, E-0800
ROSS S. SASAKURA, E-0800
CLIFFORD S. HAMILE
Manager and Chief Engineer



5621



HOUSE OF REPRESENTATIVES

STATE OF HAWAII 24 P:2:02
STATE CAPITOL
HONOLULU, HAWAII 96813

April 20, 2001

The Honorable Jeremy Harris
Mayor, City and County of Honolulu
Honolulu Hale
530 S. King Street
Honolulu, HI 96813

VIA Mr. Ben Lee, Managing Director

Dear Mayor Harris:

I have been contacted by Mr. and Mrs. Hirahara of 2034 Haalea Place who have expressed serious concerns about the Board of Water Supply's plan to build a water reservoir tank at Kalawahine Subdivision.

The Hiriharas state that they were in the process of closing on the purchase of their house lot when they received plans for the project development from the Department of Hawaiian Homes Lands. They claim that they were misled about what would actually be built on the land. They also add that although the Board of Water Supply has had this land under executive order since 1952, now that the property owners of Kalawahine Subdivision have absorbed the costs of the infrastructure, the Board of Water Supply is moving ahead with the project.

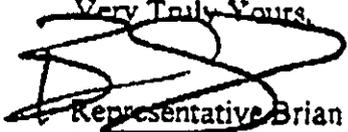
According to the Hiriharas, the project will lower their property value, destroy their view, and poses safety concerns. They also question whether given the need for open playground space for the children in the community this is the best use of the land. As I am sure you are aware, there is substantial neighborhood opposition to this project. These concerns were expressed at the March 15, 2001 meeting of the Makiki-Tantalus Neighborhood Board. According to the information Makiki residents have received, the project is designed to benefit the residents of Aiea and Salt Lake residents, and not the residents of Makiki.

2001 APR 20 10:14 AM
LAW OFFICE
12-15-01

Mayor Jeremy Harris
April 20, 2001

I would appreciate being able to explore options to the location of the project as currently proposed. I would welcome your comments regarding site alternatives if feasible, and project modifications to mitigate its impact on the residents of Kalawahine Subdivision.

Thank you very much for your attention to this matter. I look forward to hearing from you

Very Truly Yours,

Representative Brian Schatz
District 24
Makiki - Tantalus - Manoa

May 10, 2001

The Honorable Brian Schatz
Representative
District 24, Makiki-Tantalus-Manoa
State of Hawaii
State Capitol
Honolulu, Hawaii 96813

Dear Representative Schatz:

Subject: Your Letter of April 20, 2001 Regarding the Board of Water Supply's
Proposed Kalawahine Reservoir Project, Kalawahine, Honolulu, Hawaii

Thank you for your letter regarding the Board of Water Supply's (BWS) proposed Kalawahine Reservoir project.

I appreciate your involvement in addressing Mr. and Mrs. Hirahara's concerns on this reservoir project. You have my assurance that the BWS will continue to meet and involve the community prior to moving forward on this project.

The BWS has conducted presentations on the proposed reservoir project at the Kalawahine Subdivision, Papakolea Community Association and twice at the Makiki Neighborhood Board and the Nuuanu/Punchbowl Neighborhood Board meetings to listen and address community concerns. These concerns ranged from visual and construction related impacts to the use of the land.

We would like to point out that there is an agreement between the Department of Hawaiian Homelands (DHHL) and the BWS that transferred 4.5 acres of the BWS 6.0 acre parcel for the construction of the Kalawahine Streamside subdivision. The remaining 1.5 acres was planned for this water facility and DHHL informed each Kalawahine resident in their sales contract. As good neighbors, we agreed to transfer the land to DHHL for new homes. The reservoir was sited within the lower portion of the parcel to least impact the Kalawahine subdivision and in fact, part of our 1.5 acres is planned to be used to expand the existing Kalawahine lower passive park at the end of Haalelea Place.

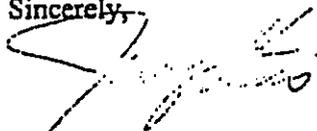
The Honorable Brian Schatz
May 10, 2001
Page 2

The top of the reservoir will be at or below the floor elevation of the adjacent homes and we will allow the residents' input in securing the reservoir and developing creative design features, like berms, native landscaping and earth tone paint to further reduce the visual impacts. We know that the project's construction will impact the residents; however, there are many ways these impacts could be controlled and mitigated. We usually start with definitive construction plans, surveys, scheduling and notification procedures, and our contractor and BWS representatives will present all information to the affected residents prior to construction.

The proposed reservoir will provide needed storage for the Honolulu 180' system which is short approximately 55 million gallons of capacity. The Honolulu 180' system extends from Salt Lake to Waialae and will directly serve those areas of Makiki below the 80-foot elevation. The reservoir project will improve water service reliability and provide needed storage during fire and peak demands and emergencies such as electrical blackouts.

The BWS is assessing additional sites in the area, specifically on DHHL lands behind Lincoln Elementary and Stevenson Intermediate schools. However, this would place the reservoir on the slopes of the Punchbowl Crater and will be highly visible. There is a high degree of uncertainty on whether the public would have no objections to this alternative site or that the necessary special permits will be approved.

Sincerely,


JEREMY HARRIS
Mayor

JH:rk(S. Muraoka, B. Usagawa, BWS)5621 

cc: C. Jamile

B. Usagawa

S. Muraoka

01-0609

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

400 SOUTH KING STREET, HONOLULU, HAWAII 96813
TELEPHONE (808) 523-4414 • FAX (808) 527-6222 • INTERNET WWW.CITYANDCOUNTY.HI



JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
ACTING DIRECTOR

LORETTA K. C. CHEE
STAFF DIRECTOR

2001/CLOG-29(RY)

February 8, 2001

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

ATTN: MS. KATHRYN FUJIKAMI

FROM: RANDALL K. FUJIKI, AIA, ACTING DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA) FOR
BOARD OF WATER SUPPLY
KALAWAHINE 180 RESERVOIR AND TRANSMISSION MAIN
TAX MAP KEY 2-4-43: 82 AND 90

Thank you for the opportunity to review the above document. We have the following comments for your consideration.

The proposal is consistent with the objectives and policies of the General Plan and the Primary Urban Center Development Plan Special Provisions with respect to upgrading existing infrastructure to provide an adequate supply of water for residents and visitors and for fire protection. As indicated in the DEA, a Development Plan Public Facilities Map amendment will be needed to add a publicly funded "reservoir" symbol to the Primary Urban Center Development Plan Public Facilities Map.

Also as indicated in the DEA, the project is subject to a Punchbowl Special District (Minor) Permit and a height waiver for the reservoir.

With respect to Section 3.7, Drainage and Kanaha Stream, it appears that your projected runoff volume of 550 cubic feet is well below our calculations. Please provide revised storm flow calculations and any modifications to the site plan that may be needed to accommodate the correct storm flows. For further clarification, we suggest you contact Ms. Dawn Kimura of our staff at 523-4968.

Mr. Clifford S. Jamile, Manager and Chief Engineer
Board of Water Supply
Page 2
February 8, 2001

With respect to traffic impacts, the following comments should be incorporated into the overall design of the project and during the construction phase of the planned improvements:

1. The driveway width at the entrance to the reservoir on Kapahu Street should be wide enough for two-way traffic.
2. Due to the magnitude of the proposed waterline improvement project, a traffic management plan should be prepared to determine the phasing of the necessary traffic detours and road closures, if required. The construction schedule should be sensitive to the periods when a significant amount of traffic is being generated by large institutions, such as schools. Preparation of the traffic control plans during construction should follow the recommendations contained in the traffic management plan. The traffic control plan should show all affected traffic signing and pavement striping along all roadways in close proximity to the work area and should be especially sensitive to sidewalk closures where a large number of pedestrian traffic is anticipated and at bus stops.

Should you have any questions regarding the Development Plan Public Facilities map amendment procedures, please contact Randy Hara of our Policy Planning Branch at 523-4483.

Questions regarding the Special District permit can be addressed to Geri Ung of our Land Use Permits Division at 527-6044.

RKF:lh
DEC 7/01

cc: OEQC
Yoshimabukuro, Endo & Yoshizaki, Inc.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
60 SOUTH BERETANIA STREET
HONOLULU, HI 96813



JEREMY HARPER, Mayor
EDGIE FLORES, JR., Chairman
CHARLES A. STEED, Vice-Chairman
JAN KELLY AIME
HERBERT S.K. KAOPUA, Sr.
BARBARA KIM STANTON
BRANKI BHALLA, Esq., Clerk
ROSS S. SUGAOKA, Esq., Clerk
CLYTON S. JAMES
Manager and Chief Engineer

March 20, 2001

TO: MR. RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: *Sheryl Nojima*
FOR CLIFFORD S. JAMBLE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR MEMORANDUM OF JANUARY 26, 2001 REGARDING THE
DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED
KALAWAHINE 180 RESERVOIR PROJECT, HONOLULU, OAHU,
TMK: 2-4-34: 08, 2-4-32: 01, 02, 14, 17, 18 & 30; AND 2-1-39

COPIES

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir Project.

We have the following comments to your concerns:

1. We acknowledge that the proposed project is consistent with the objectives and policies of the General Plan and the Primary Urban Center Development Plan Special Provisions. We note that the proposed project is subject to a Punchbowl Special District (minor) Permit and a height waiver for the reservoir.
2. The storm water runoff calculations for the proposed project are enclosed for your use. The projected runoff volume of 550 cubic feet (CF) represents the increased runoff resulting from the proposed reservoir development. The calculation is based on an increased storm flow of 1.83 cubic feet per second (CFS) over the reservoir site.
3. We are in the process of obtaining an easement for the reservoir access road from the State of Hawaii. Since the access road will be used for maintenance of the reservoir, one-way ingress/egress should be adequate.
4. The construction schedule will be sensitive to the surrounding areas, including schools and local traffic. Traffic management and traffic control plans will be prepared during the design phase of the proposed project.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Enclosure

cc: Sheryl Nojima, SEY Engineers

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC WING PLAZA • 711 BIPOLARIS BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE: (808) 532-4515 • FAX: (808) 532-4750 • INTERNET: www.ci.honolulu.hi.us



Cheryl D. Soon
Acting Director
George "Koeki" Miyamoto
Deputy Director

February 12, 2001

TPD00-00038

MEMORANDUM

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

ATTN: KATHRYN FUJIKAMI

FROM: CHERYL D. SOON, ACTING DIRECTOR

SUBJECT: KALAWAHINE 180 RESERVOIR

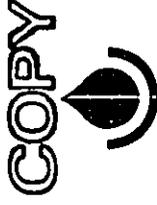
In response to the December 29, 2000 letter from Shimabukuro, Endo & Yoshizaki, Inc., the draft environmental assessment (EA) for the subject project was reviewed. The following comments are the result of this review:

1. The approval of traffic control plans is discussed on Pages 31, 44 and 61 of the draft EA. The appropriate sections on these pages should be corrected to state that traffic control plans are approved by the Department of Planning and Permitting, not this department.
 2. The movement of large construction vehicles should be limited during peak traffic hours.
 3. The parking of construction equipment on-street should be limited, especially in residential areas.
- Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at Local 6976.

cc: Ms. Genevieve Salomonson
Office of Environmental Quality Control
✓ Ms. Sheryl Nojima
Shimabukuro, Endo & Yoshizaki, Inc.

CHERYL D. SOON

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
650 SOUTH BERETANIA STREET
HONOLULU, HI 96843



March 7, 2001

TO: MS. CHERYL D. SOON, ACTING DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: FOR CLIFFORD S. JAMILE

SUBJECT: YOUR MEMORANDUM OF FEBRUARY 12, 2001 REGARDING
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED
KALAWAHINE 180 RESERVOIR PROJECT, HONOLULU, OAHU,
TMK: 2-4-34: 08, 2-4-32; 01, 02, 14, 17, 18 AND 30; AND 2-1-39

Thank you for reviewing the Draft Environmental Assessment (EA) for the proposed Kalawahine 180 Reservoir Project.

We have the following comments to your concerns:

1. The Final EA will indicate that traffic control plans are approved by the Department of Planning and Permitting, not the Department of Transportation Services.
2. The Final EA will include the following mitigative measures to minimize potential traffic impacts during construction activities:
 - a. The movement of large construction vehicles will be limited during peak traffic hours.
 - b. The parking of construction equipment on-street will be limited, especially in residential areas.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

cc: Sheryl Nojima, SEY Engineers

JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STEL, Vice-Chairman
JAMIE LY, ALAN
HERBERT S. K. KAOPUA, SR.
BARBARA KIM STANTON
BROWN K. IMAHALA, Esq.
ROSS S. SAGAMURA, Esq.
CLIFFORD S. JAMILE
Manager and Chief Engineer

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3115 KAPALANAI STREET, SUITE 4025
HONOLULU, HAWAII 96819-1899



JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF
JOHN CLARE
DEPUTY FIRE CHIEF

January 26, 2001

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
650 SOUTH BERTANHA STREET
HONOLULU, HI 96843



March 7, 2001

JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
JAN MULLY, JAMES
ROBERT S.K. TAGUCHI, SR.
BARBARA FORSTATION
BRUCE K. LEONARDI, Ex-Officio
ROSS S. SAKUMURA, Ex-Officio
CLIFFORD S. JAMILE
Manager and Chief Engineer

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

ATTN: KATHRYN FUJIKAMI

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR
PROPOSED KALAWAHINE 180 RESERVOIR
TAX MAP KEY: 2-4-034: 008 (RESERVOIR AND ACCESS ROAD)
AND 2-4-032: 001 AND 002; 2-4-032: 030, 018, 017, AND 014; AND
2-1-039 (WATERLINE)

We received a letter from Sheryl E. Nojima, Ph.D., P.E., Project Manager of Shimabukuro, Endo & Yoshizaki, Inc., dated December 29, 2000, regarding the above-mentioned project.

The Honolulu Fire Department requests that you comply with the following:

1. Maintain fire apparatus access throughout the construction site for the duration of the project.
2. Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

ATTILIO K. LEONARDI
Fire Chief

AKL/KS:jo

cc: Office of Environmental Quality Control
Ms. Sheryl Nojima

TO: MR. ATTILIO LEONARDI, FIRE CHIEF
FIRE DEPARTMENT

FROM: FOR CLIFFORD S. JAMILE

SUBJECT: YOUR MEMORANDUM OF JANUARY 26, 2001 REGARDING
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED
KALAWAHINE 180 RESERVOIR PROJECT, HONOLULU, OAHU,
TMK: 2-4-34: 08, 2-4-32: 01, 14, 17, 18 AND 30; AND 2-1-39

Thank you for reviewing the Draft Environmental Assessment (DEA) for the proposed Kalawahine 180 Reservoir Project.

We acknowledge that fire apparatus access is required to be maintained throughout the construction site for the duration of the project. In addition, the Fire Communication Center will be notified of any interruption in the existing fire hydrant system during construction activities.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

cc: ✓ Sheryl Nojima, SEY Engineers

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
<http://www.honolulu.gov>
www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR



LEE D. DONOHUE
CHIEF
MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

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



APREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STED, Vice-Chairman
JANIM LY AUN
HERBERT S.K. KOPIUA, SR.
BARBARA DILL STANTON
BRANKI BHANU, E-Office
ROSS S. SASAURA, E-Office
CLIFFORD S. JAMILE
Manager and Chief Engineer

March 9, 2001

OUR REFERENCE CS-LS

January 31, 2001

TO: CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY
ATTENTION: KATHRYN FUJIKAMI, CIVIL ENGINEER IV
FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT
SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED KALAWAHINE
180 RESERVOIR
TAX MAP KEY NOS. 2-4-34-08 (RESERVOIR AND ACCESS ROAD) AND
2-4-32-01 AND 02, 2-4-32, 30, 18, 17 AND 14, AND 2-1-39 (WATERLINE)

TO: LEE DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT
FROM: FOR CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER

SUBJECT: YOUR MEMORANDUM OF JANUARY 31, 2001 REGARDING
THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED
KALAWAHINE 180 RESERVOIR PROJECT, HONOLULU, OAHU,
TMS: 2-4-34: 08, 2-4-32: 01, 02, 14, 17, 18 AND 30, AND 2-1-39

Thank you for the opportunity to review the subject document.

We would like to acknowledge that we have noted the proposed mitigation measures relative to noise and traffic issues described in the document.

As construction at the reservoir site and along the affected roadways progress, we are advising that the contractor contact Major Michael Tucker of District 1 to ensure that public complaints can be minimized. Further, if public complaints begin to have a direct and negative impact on police services in the area, we would like to meet with the contractor to try to resolve any contributing issues.

If there are any questions, please call Major Michael Tucker at 529-3388 or Carol Sodelani of the Support Services Bureau at 529-3658.

LEE D. DONOHUE
Chief of Police

By *Sheryl Nojima*
EUGENE UEMURA, Assistant Chief
Support Services Bureau

cc: OECC
Sheryl Nojima, Shimabukuro,
Endo, and Yoshizaki, Inc.

Thank you for reviewing the Draft Environmental Assessment (EA) for the proposed Kalawahine 180 Reservoir Project.

We acknowledge your concerns regarding noise and traffic during construction activities. Coordination by the contractor with Major Michael Tucker of District 1 will be included in Section 3.12 and Section 4.17 of the Final EA to ensure that public complaints can be minimized and resolved.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

cc: Sheryl Nojima, SEY Engineers



WR-77/01
CITY COUNCIL
 CITY AND COUNTY OF HONOLULU
 HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

Jon C. Yoshimura, Chair
 District 6
 (808) 547-7006
 Fax: (808) 527-6101
 email: jyoshimura@co.honolulu.hi.us
 website: www.jonyoshimura.com

March 20, 2001

MEMORANDUM

TO: Mr. Clifford Jamille, Director
Board of Water Supply

VIA: Mr. Ben Lee
Managing Director

FROM: Jon Yoshimura, Chair
City Council

Re: Proposed Reservoir at Kalawahine

My office has received several concerns from constituents regarding the proposed reservoir at Kalawahine. I too, share these concerns and would like the Board of Water Supply to work directly with my office and the community to address these issues prior to moving forward with the project. Enclosed is a letter from the Papakolea Community Association regarding the reservoir.

Thank you for your attention regarding this matter. If you have any questions or would like additional information, please contact my office at 547-7006.

JY:kc

Enclosure

MAR 21 4 23 PM '01

FILE

Papakolea Community Association

745 Keolu Street & Hahaione, Hawaii 96813-1234
 Phone (808) 833-2104 & Fax (808) 833-0200 & Email papakolea@hawaii.rr.com

February 22, 2001

Kathryn Fujikami
 Board of Water Supply
 630 South Beretania Street
 Honolulu, Hawaii 96813

Re: STRONG OPPOSITION TO THE PROPOSED KALAWAHINE 180 RESERVOIR

Dear Ms. Fujikami:

The members and officers of Papakolea Community Association strongly opposes the proposed construction of a 2.0 million gallon reservoir in Kalawahine above Roosevelt High School.

The Papakolea Community Association represents 330 members (homes) of which there are a total of approximately 1,500 Hawaiian homestead residents.

Papakolea Community Association has expressed opposition to this project since the release of the Governor's Executive Order No 1529, dated October 1, 1992. Since that time, the Papakolea Homestead Association (previous name) we have participated in hearings conducted by the City and County of Honolulu, Board of Water Supply and expressed our opposition. PCA's position was submitted in writing at every hearing and level of discussion. PCA's position has not changed.

Our formal recommendation is for the Board of Water Supply to construct the reservoir at an alternate site outside of Papakolea, Kawaie and Kalawahine.

Should you have any questions or require clarification, please do not hesitate to call me at 535-0589.

Respectfully submitted,

Puni Kokuoia
 President

cc: Office of Environment Quality Control
 Shimabukuro, Erdo & Yoshizaki
 Neighborhood Board #12
 Ray Soon, DHHL Chair

file

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



April 3, 2001

JEREMY HANAUER
COPY

EDDIE FLORES, Vice-Chairman
CHARLES A. STEWART, Vice-Chairman
JAN M. LAY, Member
HERBERT S. KAOPIA, Member
BARBARA JOHNS STANTON, Member

BRANKA URSAL, Executive Director
ROSS S. SASAKAWA, Executive Director

CLIFFORD S. JARRELL
Manager and Chief Engineer

The Honorable Jon Yoshimura
Councilmember
City Council
City Hall, Room 202
Honolulu, Hawaii 96813

Dear Councilmember Yoshimura:

Subject: Your Letter of March 20, 2001 Regarding the Board of Water Supply's
Kalawahine Reservoir Project, Kalawahine, Honolulu, Hawaii

Thank you for your letter regarding the Board of Water Supply's proposed Kalawahine Reservoir project.

We appreciate your assistance in addressing the community concerns on this reservoir project. You have our assurance that we will continue to meet and involve the community prior to moving forward on this project.

We have had presentations on the proposed reservoir project at the Kalawahine Subdivision and twice at the Makiki Neighborhood Board and the Nuuanu/Punchbowl Neighborhood Board meetings to listen and address community concerns. These concerns ranged from visual and construction related impacts to the use of the land.

We have an agreement with the Department of Hawaiian Home Lands (DHHL) that transferred 4.5 acres of our 6.0 acre parcel for their construction of the Kalawahine Streamside subdivision. The remaining 1.5 acres was planned for the Kalawahine reservoir and the DHHL had informed each resident in their contract agreements. The reservoir was sited to least impact the Kalawahine subdivision and in fact, part of our 1.5 acres was planned to be used to expand their passive park.

The top of the proposed reservoir will be at or below the floor elevation of the adjacent homes and we will allow the residents input in developing creative design features, like berms, native landscaping and earth tone paint to further reduce the visual impacts.

The Honorable Jon Yoshimura
April 3, 2001
Page 2

We will be attending the next Papakolea Community Association meeting on April 5, 2001, to continue our discussions on the proposed reservoir project. Our response to the Papakolea Community Association letter dated February 22, 2001, is enclosed for your use. We will keep you informed of our progress and are available to meet with you to discuss any additional concerns you may have.

If you have any questions, please contact me at 527-6180.

Very truly yours,


CLIFFORD S. JARRELL
Manager and Chief Engineer

Enclosure

cc: ✓ Sheryl Nojima, SEY Engineers
Benjamin Lee, Managing Director

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96813



JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STEED, Vice-Chairman
JIM KELLY, Aiea
ROBERT S.K. KAPUALA, SR.
KAWAHAU RAIL STATION
BRUCE K. IMAHALI, Esq., Oahu
ROSS E. MAMALONA, Esq., Oahu
CLIFFORD S. JANGLE
Manager and Chief Engineer

March 30, 2001

Ms. Puni Kekauoha
Papakolea Community Association
745 Iaukea Street
Honolulu, Hawaii 96813-1234

Dear Ms. Kekauoha:

Subject: Your Letter of February 22, 2001 Regarding the
Board of Water Supply's Proposed Kalawahine
Reservoir Project, Kalawahine, Honolulu, Hawaii

Thank you for expressing your views on the proposed Kalawahine 180' Reservoir project and for inviting us to attend your Papakolea Community Association meeting on April 5, 2001. We accept your invitation and will be attending. We first would like to assure you that we would continue to meet and involve your community in addressing your concerns prior to moving forward on this project.

We would like to point out that we have an agreement with the Department of Hawaiian Home Lands (DHHL) that transferred 4.5 acres of our 6.0 acre parcel in Papakolea for the construction of the Kalawahine Streamside subdivision. The remaining 1.5 acres was planned for this water facility and DHHL informed each Kalawahine resident in their sales contract. We agreed to transfer the land for new homes, as good neighbors, and will continue to assist DHHL in reserving sufficient water supply for their housing developments as they seek to build new homes for native Hawaiians.

The reservoir was sited within the lower portion of the parcel to least impact the Kalawahine subdivision and in fact, part of our 1.5 acres was planned to expand the existing Kalawahine lower passive park. The top of the reservoir is at or below the floor elevation of the adjacent homes and we will seek the residents input in developing creative design features like berms, native landscaping and earth tone painting schemes to further reduce the visual impacts.

Ms. Puni Kekauoha
March 30, 2001
Page 2

We know that the project's construction will impact the residents, however, there are many ways these impacts could be controlled and mitigated. We usually start with definitive construction plans, surveys, scheduling and notification procedures and our contractor and BWS representatives will present all information to the affected residents prior to construction. Their phone numbers will be available to provide any input and the contractor by their contract must be responsive to the adjacent community concerns.

These are just a few of the mitigative measures that we will be prepared to discuss with you at your next community association meeting. We appreciate your input and offer to meet with you.

If you have any questions, please contact me at 527-6180.

Very truly yours,


CLIFFORD S. JANGLE
Manager and Chief Engineer

cc: Jon Yoshimura, Councilmember

COPY

Papakolea Community Association

◆◆◆
745 Leleka Street ♦ Honolulu, Hawaii 96813-1234
Phone (808) 533-2194 ♦ Fax (808) 536-0669 ♦ Email papakolea@hawaii.net

February 22, 2001

Kathryn Fujikami
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96813

Re: **STRONG OPPOSITION TO THE PROPOSED KALAWAHINE 180 RESERVOIR**

Dear Ms. Fujikami:

We, the members and officers of the Papakolea Community Association (PCA) strongly oppose the proposed construction of a 2 million gallon reservoir in Kalawahine above Roosevelt High School.

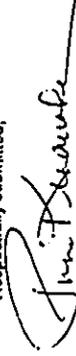
The Papakolea Community Association represents 330 members (homes), with an approximate total of 1,500 Hawaiian homestead residents.

Papakolea Community Association has expressed opposition to this project since the release of the Governor's Executive Order No 1529, dated October 1, 1952. Since that time, PCA participated in years of hearings conducted by the City and County of Honolulu, Board of Water Supply and expressed our opposition. PCA's position was submitted in writing at every hearing and level of discussion. Our position has not changed.

PCA's recommends that the City and County of Honolulu, Board of Water Supply construct the reservoir at an alternate site outside of Papakolea, Kewalo and Kalawahine.

Should you have any questions or require clarification, please do not hesitate to call me at 536-0599.

Respectfully submitted,



Puni Kekauoha
President

cc: Office of Environment Quality Control
✓Shimabukuro, Endo & Yoshizaki
Neighborhood Board #12
Ray Soon, DPHL Chair

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96813



March 30, 2001

Ms. Puni Kekauoha
Papakolea Community Association
745 Iaukea Street
Honolulu, Hawaii 96813-1234

Dear Ms. Kekauoha:

Subject: Your Letter of February 22, 2001 Regarding the Board of Water Supply's Proposed Kalawahine Reservoir Project, Kalawahine, Honolulu, Hawaii

Thank you for expressing your views on the proposed Kalawahine 180' Reservoir project and for inviting us to attend your Papakolea Community Association meeting on April 5, 2001. We accept your invitation and will be attending. We first would like to assure you that we would continue to meet and involve your community in addressing your concerns prior to moving forward on this project.

We would like to point out that we have an agreement with the Department of Hawaiian Home Lands (DHHL) that transferred 4.5 acres of our 6.0 acre parcel in Papakolea for the construction of the Kalawahine Streamside subdivision. The remaining 1.5 acres was planned for this water facility and DHHL informed each Kalawahine resident in their sales contract. We agreed to transfer the land for new homes, as good neighbors, and will continue to assist DHHL in reserving sufficient water supply for their housing developments as they seek to build new homes for native Hawaiians.

The reservoir was sited within the lower portion of the parcel to least impact the Kalawahine subdivision and in fact, part of our 1.5 acres was planned to expand the existing Kalawahine lower passive park. The top of the reservoir is at or below the floor elevation of the adjacent homes and we will seek the residents input in developing creative design features like berms, native landscaping and earth tone painting schemes to further reduce the visual impacts.

JEREMY HARRIS, Mayor
EDGE FLORES, JR., Chairman
CHARLES A. STEL, Vice-Chairman
JANUARY ANN
HERBERT S.K. HAGAOKA, SR.
BARBARA KOB STANTON
BRIAN K. LUKIALI, E-Office
ROSS S. SAUMAKU, E-Office
CLIFFORD S. JARLE
Manager and Chief Engineer

COPY

Ms. Puni Kekauoha
March 30, 2001
Page 2

We know that the project's construction will impact the residents, however, there are many ways these impacts could be controlled and mitigated. We usually start with definitive construction plans, surveys, scheduling and notification procedures and our contractor and BWS representatives will present all information to the affected residents prior to construction. Their phone numbers will be available to provide any input and the contractor by their contract must be responsive to the adjacent community concerns.

These are just a few of the mitigative measures that we will be prepared to discuss with you at your next community association meeting. We appreciate your input and offer to meet with you. If you have any questions, please contact me at 527-6180.

Very truly yours,

CLIFFORD S. JARLE
Manager and Chief Engineer

cc: Jon Yoshimura, Councilmember

January 24, 2001

BOARD OF WATER SUPPLY
630 South Beretania Street
Honolulu, Hawaii 96843

RE: Draft Environmental Assessment for Proposed Kalawahine 160 Reservoir
TMK Nos. 2-4-34:08 and 2-4-37:01, & 07; 2-4-32, 30, 18, 17 & 14; and 2-1-32

Dear Ms. Kathryn Fujitami:

On behalf of the Kalawahine Streamside Association (KSA) and Anianiku Street residents, we would like to express our concerns regarding the above-mentioned subject matter, a.k.a. the Draft EA.

First of all, the KSA is in the process of organizing a Board of Directors to handle such matters, and, as such, has designated February 15, 2001, as the first official meeting. However, due to the February 7, 2001 deadline request per the Shimabukuro, et. al., letter dated 14 January 2001, the KSA convened for an urgent meeting to discuss the issues at hand and concluded that we need more time to assess the development of Kalawahine 180 Reservoir, as our concerns were not properly addressed. Below is a list of questions that were expressed during our meeting:

- Why did the Board of Water Supply (BWS) not schedule a community meeting?
- What were the other alternative sites selected other than the Kalawahine Streamside Development?
- Were there any concerns or issues opposing the BWS developmental project that were raised by the communities considered as alternative sites?
 - If yes, were there reports that we should have the right to access?
- How will the residents of KSA and Anianiku benefit from this development?
- Explain the legitimacy of the drafts concerning the archaeological, historical, and cultural reports? Also:
 - Clarify the credibility of the Hawaiian culturalists and archaeologists used in this draft?
 - (1) List major Hawaiian archaeological site surveys that they participated in, which resulted in the approval of similar BWS development projects to proceed.
 - (2) List major Hawaiian organizations, publicly well-known among our Hawaiian communities, that support, certify, and/or acknowledge the legitimacy of their credibility and expertise.

These are just a few of the questions and concerns that need to be addressed before any development is constructed on Hawaiian Lands. On February 3, 2001, the residents of Kalawahine and Anianiku will be organizing a community meeting to address questions and concerns regarding this development. We request representatives of the Board of Water Supply be present at this meeting. The association will also invite representatives of DHHL, the Office of Hawaiian Affairs, Hawaiian Culturalist, and State House & Senate Representatives.

Sincerely,

Residents of Kalawahine Streamside & Anianiku

Enclosures

cc: Office of Environmental Quality Control
Shimabukuro, Endo & Yoshizaki, Inc.
Elton Wong, Kamehameha Investment Corp.
State Representative Sylvia Luke
State Representative Brian Schatz
State Senator Carol Fukunaga
State Senator Rod Tam
Trustee Haumani Apoliona, Chairperson Office of Hawaiian Affairs

NAME	ADDRESS	PHONE
1. <u>Col. Fred B. MacPherson</u>	<u>2211 Anianianu</u>	<u>538-1292</u>
2. <u>Mrs. Langella Wailiula B. Aoki</u>	<u>2147 Auaniukua</u>	<u>531-4324</u>
<u>Dr. W. K. St. John</u>	<u>608 Naale St. Honolulu</u>	<u>96815</u>
	<u>Ph. 533-2006</u>	
4. <u>Keweenaw + Leihoni Motoyama</u>	<u>2026 Halekua Pl</u>	<u>522-8441</u>
5. <u>Mr. + Mrs. R. B. + Blanche Conway</u>	<u>2041 Halekua Pl</u>	<u>250-8339</u>
6. <u>Mr. + Mrs. Michael Bush</u>	<u>2021 Halekua Pl</u>	<u>Ph. 520-8046</u>
	<u>Hon. HI 96813</u>	
7. <u>Ms. L. A. + Nelson + Ma</u>	<u>2057 Halekua Pl</u>	
8. <u>HERB + LORNA VIERRA</u>	<u>2030 Halekua Pl</u>	<u>520-8422</u>
9. <u>CAROL + ANTHONY APTO</u>	<u>2042 Halekua Pl</u>	<u>531-4403</u>
10. <u>Mr. + Mrs. + Kenneth + Hilda</u>	<u>2036 Halekua Pl</u>	<u>520-8411</u>
	<u>Honolulu, HI 96813</u>	

NAME	ADDRESS	PHONE
1. <u>Mr. + Mrs. + Fred + So</u>	<u>2274 Kapaeha St.</u>	<u>831-7159</u>
2. <u>Helo Sanchez</u>	<u>2230 KAPAHA ST</u>	<u>520-8064</u>
	<u>Honolulu, HI 96813</u>	
<u>Kk. Karloha Kaea</u>	<u>2252 Kapaeha St.</u>	
4. <u>Leid of. Lee</u>	<u>1007 Thalein Pl.</u>	<u>520-838</u>
5. <u>Terese + Heali Kinoue</u>	<u>2038 Halekua Pl</u>	<u>520-84133</u>
<u>Mr. Dean + Auli + Hana</u>	<u>2034 Halekua Pl</u>	<u>Hon. HI 96813</u>
<u>Mr. Ted + Tamar Jeffries</u>	<u>2031 Halekua Place</u>	<u>Honolulu HI 96813</u>
	<u>Ph. 520-8345</u>	
8. <u>Kenia + Laikie</u>	<u>Ph. # 805-406-1045</u>	
	<u>41-214 Kauhunamoku Pl</u>	<u>Honolulu HI 96795</u>
9. <u>John + Tula</u>	<u>2025 Halekua Pl</u>	<u>520-8520</u>
<u>Ms. Denise + Keia</u>	<u>2050 Kapaeha St.</u>	<u>520-8415</u>

1. George E. Crawford 2753 Kapahu
George E. Crawford 526-827
Ezekiel Kunghele 614 Nscale St

3. Keolu E. Alkana 2015 Haaleka St
Tuk J. Alkana 120 2484

4. Euna J. Ohana 2015 Haaleka St 90813
Thelma Ayoa 2001 Haaleka Pl. 90813
Sunelle Ohana Aho. Ni

6. C. Hauani Maunui-Kindix 2198 Kapahu St. 9081
Clifford King

7. NORBERT MENDES 2085 HAALAEA PL
Fidelis K. Mendes 90813

8. Mak. Olan Ho 2264 Kapahu St
Pua Ho

9. _____

10. _____

Act 04 0, Act 03 24 AM
04-02-01 08:45 NEIGHBORHOOD COMMISSION

AM 10-545555

Act

Aloha Mrs. Chairman and members of the Neighborhood Board,

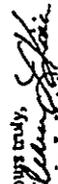
My name is Denise Ka'a and I am the President of Kalawahine Streamside Association. On February 3, 2001 we invited the Board of Water Supply to our community to explain to the homeowners what their plans were for Kalawahine 180 Reservoir Project. There were approximately 40 residents who attended this informal gathering. We had no idea as to the extent of this development. Prior to this, most residents believed they were to build a pumping station. After listening to the presentation by the Board of Water Supply there were many questions from the homeowners. In 1952, there was a deal made between the State and the Board of Water Supply. We understood that the development should have taken place back then. There have been many contradictory stories as to how this land was to have been used. We believe we have been misled and deceived. At this meeting on February 3, there was an astounding voice of opposition by the residents of Kalawahine Streamside as well as from the older neighboring communities of Papakohala and Kewalo. In the DCC&R, there is a statement that makes reference to a possible development by the Board of Water Supply, but it is quite vague. On March 3, 2001, we took a vote to see how many members oppose the Kalawahine 180 Reservoir Project. As expected, a great majority of the neighbors do object to this project.

We object for many reasons:

- 1) We believe we were deceived and lead to believe that a "pumping station" was going to be built not a 2 million gallon water reservoir.
- 2) There is a park right next to the site where our children will play and it will be unsafe for them.
- 3) There will be an access road open to the public behind homes of homeowners on Anianiku St. and Ha'aleka Pl.
- 4) This project will have a negative impact on our property values.
- 5) There will be noise and air pollution during construction.
- 6) It will spoil the view from many of our homes (views that we are paying for now).

There are alternative sites and we, the homeowners of Kalawahine Streamside, do not want the Board of Water Supply to build this water reservoir in our backyards. We heard of two new signs last week behind of Lincoln Elementary and Stevenson Intermediate. Why doesn't the Board of Water Supply look into other sites that is not in a residential area such as Kalawahine. I would like to see this land conveyed back to the Department of Hawaiian Home Lands to be put to better use for our community. We have been looking into the possibility of a Boys and Girls Club and a community center to be used by all. A place where our children could go after school to get their homework done and to use computers and the internet. This would be a place to keep them off the streets and out of trouble.

We, the Association members of Kalawahine Streamside, respectfully urge the Board of Water Supply to halt the reservoir project at Kalawahine Streamside due to the negative impacts that will be endured by the homeowners of our communities. I hope the neighborhood board sees and understands how strongly we feel about this issue and will advise the Board of Water Supply to choose an alternative site for their project.

Yours truly,

Denise L. Ka'a
President
Kalawahine Streamside Association
520-8555
dkaa@hawaii.rr.com

Post-It Fax Note	7871	04/25/01	Page 1
From:	Denise L. Ka'a	Phone:	527-5221
To:	Neighborhood Board	Fax:	527-5203
Post-It Fax Note	7871	04/25/01	Page 1
From:	F. FUJIKAWA	Phone:	527-5221
To:	Neighborhood Board	Fax:	527-5203

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
433 SOUTH BERTANHA STREET
HONOLULU, HI 96843



April 6, 2001

JEREMY HARRIS Mayor
EDDIE FEELES Deputy Mayor
CHARLES LEE Deputy Mayor
JANUARY ABE
HERBERT S.K. MAOPUA, SR.
BARBARA KIM STANTON
BRIAN K. MAHAL, Esq. Mayor
ROSS S. SALAMURA, Esq. Deputy Mayor
CLIFFORD S. JAMBLE
Manager and Chief Engineer

Ms. Denise Ka'a'a
Kalawahine Community Association President
2252 Kapahu Street
c/o Residents of Kalawahine Streamside and Aniamuku
Honolulu, Hawaii 96813

Dear Ms. Ka'a'a:

Subject: Your Letter of January 24, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu, TMK: 2-4-34: 08.2-4-32: 01 & 02; 2-4-32, 30, 18, 17 & 14; and 2-1-39

Thank you for your letter regarding the Draft Environmental Assessment (EA) for the proposed Kalawahine 180 Reservoir project.

We have the following comments to your concerns:

1. Why did the Board of Water Supply (BWS) not schedule a community meeting?

As part of the environmental disclosure process, Pre-Assessment consultation letters disclosing the proposed reservoir project were mailed in April and May 2000 to various affected agencies and individuals, including Neighborhood Board Nos. 10 and 12, Kamehameha Investment Corporation, Papakolea Community Association and the Kalawahine residents adjacent to the proposed reservoir site. We understand the Kalawahine Community Association was only recently formed on February 15, 2001. However, we did present the proposed reservoir project to the Kalawahine Residents Community Meeting on February 3, 2001. Notice for the Kalawahine 180 Reservoir Draft Environmental Assessment (EA) was published in the January 8, 2001 issue of the State Office of Environmental Quality Control's Environmental Notice. The same parties consulted in the Pre-Assessment consultation phase were provided copies of the Draft EA for review and comments. The Kalawahine Reservoir project was presented to the Makiki Neighborhood Board No. 10 on February 15, 2001 and March 15, 2001, and the Nuuanu/Punchbowl Neighborhood Board No. 12 on February 20, 2001 and March 20, 2001.

Ms. Denise Ka'a'a
April 6, 2001
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2. What were the other alternative sites selected other than the Kalawahine Streamside Development?

Potential reservoir sites were thoroughly evaluated in the BWS' Honolulu 180 Regional Reservoir Site Location Study which evaluated potential sites in the Honolulu District for reservoir development in the 180 system. These potential sites are listed below:

- a. Diamond Head, Site 1, Diamond Head Road;
- b. Diamond Head, Site 2, Diamond Head Road;
- c. Salt Lake, Likini Street, above Salt Lake Elementary School;
- d. Makiki, Prospect Street, above Stevenson Intermediate School;
- e. Makiki, Auwāiolimu Street, above Lincoln Elementary School;
- f. Existing Waiālae 180 Reservoir Site;
- g. Kapalama, Makuakane Street;
- h. Kalihi, BWS Corporation Yard, off Kini Street.

Several of these potential sites were disclosed in the Draft EA as alternate sites for the Kalawahine site. However, we intend to pursue all of these sites for reservoir development due to the large storage deficit in the Honolulu 180 system.

3. Were there any concerns or issues opposing the BWS developmental project that were raised by the community considered as alternative sites? If yes, were there reports that we should have the right to access?

We intend to prepare feasibility studies for several of the potential sites listed in item no. 2 later this year. We will inform the affected community of the potential reservoir projects at that time.

4. How will the residents of Kalawahine and Anianiku benefit from this development?

The Honolulu 180 system primarily benefits from this development because public health and safety would increase with improved water pressure, more reliable water service, and needed storage during peak demand periods and emergencies such as electrical blackouts. The residents of Kalawahine and Anianiku are served by the BWS 405 system and would indirectly benefit from the reservoir project due to the improved water system performance of the 180 system which would increase flexibility for the BWS to boost water from the 180 system to the higher 405 system, if needed.

5. Explain the legitimacy of the drafts concerning the archaeological, historical, and cultural reports. Clarify the credibility of the Hawaiian culturalists and the archaeologists used in this draft.

The Archaeological Inventory Survey for the Kalawahine Reservoir Site was prepared by Cultural Surveys Hawaii (CSH). The State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources, which has jurisdiction over State archaeological requirements, indicated that there are no known significant historic sites at the proposed reservoir site.

CSH is listed by SHPD as an organization engaging in archaeological consultant work in the State of Hawaii. CSH has personnel meeting minimal National Park Service standards as archaeologists.

6. List major Hawaiian archaeological site surveys that they participated in, which resulted in the approval of similar BWS development projects to proceed.

CSH's resume and list of projects are enclosed for your use.

7. List major Hawaiian organizations, publicly well-known among our Hawaiian communities, that support, certify, and/or acknowledge the legitimacy of their credibility and expertise.

As mentioned in item no. 5, CSH is listed by SHPD, which has jurisdiction over State archaeological requirements, as an organization engaging in archaeological consultant work in the State of Hawaii. CSH has personnel meeting National Park Service standards as archaeologists.

If you have any questions, please contact Scot Muraoka at 527-5221.

Very truly yours,



FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

Enclosures

cc: ~Sheryl Nojima, SEY Engineer

INDIVIDUALS AND ORGANIZATIONS ENGAGING IN ARCHAEOLOGICAL CONSULTANT WORK IN THE STATE OF HAWAII

AIG SIMOTO CONSULTING
2133 Kapoleia Blvd., #2704
Honolulu, HI 96816
Principal Archaeologist: Jeffrey Panchko, M.A.
PHONE and FAX: 941-9338

ANPC
6801 Weale Road, Suite 660
Honolulu, HI 96817
Office Manager: Stephen Chitt
Senior Archaeologist: June Allen, Ph.D.
PHONE: 945-1462 FAX: 520-5379

ARCHAEOLOGICAL CONSULTANTS OF THE PACIFIC
55-034 Pupulea Road
Haleiwa, HI 96712
Archaeologist: Joseph Kennedy, M.A.
PHONE: 638-7442 FAX: 638-0703

ARCHAEOLOGICAL SERVICES HAWAII, LLC
10 South Huiwai Street, G
Waikuku, HI 96793
Principal Investigator: Jeffrey Pantaleo, M.A.
PHONE: 244-2012 FAX: 244-9592

BERNICE PALAUJI BISHOP MUSEUM
Anthropology Department
1525 Bernice Street
Honolulu, HI 96811-4916
Curator: Deborah Czarzewski, Ph.D.
PHONE: 847-8279 FAX: 848-4132

CULTURAL LANDSCAPES HAWAII, I
P.O. Box 231523
Honolulu, HI 96823-1502
Archaeologist: Maurice Major, M.A.
PHONE: 521-9629 EMAIL: mjmaj@lshw.net

CULTURAL RESOURCES NIGHT SERVICES
1142 Aiea Street, A1-1901
Honolulu, HI 96814-4996
Archaeologist: Mike Cannon, M.A.
PHONE: 941-7572 or (800) 676-1630
EMAIL: nancy@crns WWW-URL: www.crnss.com

CULTURAL SURVEYS OF HAWAII, I
733 North Kalia Avenue
Kaliua, HI 96704
Principal Archaeologist: Hallett Hammatt, Ph.D.
PHONE: 262-9972 FAX: 262-4950

GARCIA AND ASSOCIATES
779 Enry Street, Suite 8
Honolulu, HI 96813
Principal Archaeologist: Alice Roberts, M.A.
PHONE: 597-8865 FAX: 597-8864

HAVIN & ASSOCIATES
1001 K Street, Suite 100
Kaliua, HI 96749
Principal Archaeologist: Alan Havin, Ph.D.
PHONE: 982-7753 FAX: 982-6343
EMAIL: alan@havin.com

INTERNATIONAL ARCHAEOLOGICAL RESEARCH INSTITUTE, INC.
2081 Young Street
Honolulu, HI 96826
Principal Archaeologist: Stephen Adams, Ph.D.
PHONE: 945-2548 FAX: 943-0716
EMAIL: iari@earthlink.net

PACIFIC LEGACY
332 Uluani Street
Kaliua, HI 96734
Principal Archaeologist: Paul Clephorn, Ph.D.
PHONE: 263-4800 FAX: 263-4300

PAUL H. ROSENDAHL, INC. (PHRI)
204 Waiandou Avenue
Hilo, HI 96720
Principal Archaeologist: Paul Rosendahl, Ph.D.
PHONE: 969-1763 FAX: 961-6998

RECHTMAN CONSULTING
P.O. Box 4199
Kapala, HI 96749
Principal Archaeologist: Robert Rechtmann, Ph.D.
PHONE: 966-7636 FAX: (800) 466-2665
EMAIL: rechtmann@aol.com

SCIENTIFIC CONSULTANT SERVICES, INC.
711 Kapiolani Boulevard, Suite 777
Honolulu, HI 96813
Principal Archaeologist: Robert Spear, Ph.D.
PHONE: 597-1182 FAX: 597-1193
EMAIL: rcs@scholar.net
WWW-URL: www.scholar.net/~rsc

ZAMANTER RESEARCHERS
P.O. Box 131
Puhaima, HI 96783
Archaeologist: Erik Fredericksen, M.A.
PHONE: 572-8900 & 572-6118
FAX: 572-6118

Cultural Surveys Hawaii, Inc.

Hallett H. Hammatt, Ph.D., owner
O'ahu Office - 733 N. Kalia Ave., Kaliua, Hawaii 96734
(808) 262-9972 - Bus (808) 262-4950 FAX, email: csh@psa.net and (808) 261-8293 - Res.
Kauai Office - 21805-C Poipu Rd, Kilauea, Kauai 96756
Tel/fax (808) 332-7071, Gerald K. Ika, Manager
Maui Office - Maui Technical Office, Hauger 104, Kahului Heliport, Kahului, HI 96732, (808) 877-6455 x 242, Fax (808) 877-5230

founded 1982

Services - a small company offering expertise in archaeological reconnaissance surveys, inventory surveys, archaeological monitoring, excavations, site and area management and assessments, site stabilization and development, interpretive and educational planning and displays. The emphasis is on a professional but realistic approach to archaeology and its relation to land development. Cultural Surveys Hawaii has an excellent record of timely completion of reports.

Personnel and Associates

Four of the principals each have over 20 years of experience in Hawaiian archaeology and three were born and raised in the state. Most of the principals and staff are born and raised in Hawaii.

Hallett H. Hammatt, Ph.D. (Proprietor)

Thirty-six years experience in archaeology, 25 years in Hawaiian archaeology, directed and completed approximately 800 archaeological projects in Hawaii, involving work on all major islands, and in most aspects of Hawaiian archaeology. Twenty plus years experience in consulting with over 50 governmental agencies and private companies in Hawaii. Member of the Hawaii Historic Places Review Board for 11 years. Presented testimony at over 35 public hearings and legal proceedings, including the Land Use Commission, as expert witness in archaeology. Among recent projects, Director of archaeological work for Cleanup of Kaho'olawe Island.

The organizations or individuals listed above are not directly associated with the State Historic Preservation Division nor is listing to be construed as any guarantee of the quality of work. Project cost may vary considerably between companies. It is recommended that more than one estimate be obtained. It is also recommended that any contract contain language that specifies that a report meeting DLUK minimal standards will be provided as a product. All of the above organizations have on their staff, and often hire on a part-time basis, persons meeting minimal National Park Service standards as archaeologists. All of the above have indicated to the State Historic Preservation Office that they are engaged in contract archaeological work.

David Shideler (Project Director and Manager O'ahu Office)
 B.S. in Zoology, B.A. Anthropology, M.P.H. Environmental Health Management, M.A. Asian religions, A.B.D. in Hawaiian History, 20 years experience in Hawaiian archaeology, Lecturer in Hawaiian and Polynesian religions at U.H. Manoa, speciality in environmental utilization, analysis of faunal remains from archaeological sites and site interpretation.

Douglas Borthwick (Project Director)

B.A. in Archaeology, graduate studies in Pacific Islands Studies, 20 years experience in Hawaiian archaeology, work on all major islands, speciality in site survey, artifact analysis, historical research.

William H. Folk (Project Director)

B.A. Anthropology, U.H. Hilo, graduate studies in Pacific Island Studies; 23 years experience in Hawaiian archaeology; field experience on all major Hawaiian islands member of National Park Service survey crew on the U.S.S. Arizona; field experience in South American Pacific Coast archaeology.

Gerald K. Ida (Project Director - Kauai)

B.A. in History U.H. Manoa (Hawaii and the Pacific) 1977, 9 years full-time experience in Hawaiian Archaeology on Kauai and Kaho'olawe; Historical Research, Survey, Excavation, Archaeological Monitoring, Archaeology and History of Kauai. Charter Appointee Kauai's Historic Preservation Review Commission. Appointed under 2 mayors 1987-1992, Chairman, 1992. Resident of Kauai, Manager of Cultural Surveys Hawaii Kauai Office.

Matt McDermott (Project Director)

M.A. in Anthropology 2001, University of Hawaii, B.A. in Archaeological Studies 1990, Boston University, 14 years experience in archaeology and 12 years in Hawaiian archaeology on all major islands; 3 different projects in central America Experience in all phases of Research, Excavation, Archaeological Monitoring, Historical Research, Report Research, Writing, Drafting and Production.

Rodney Chlogioji (Project Director)

B.A. in Comparative Literature, free-lance writer and graphic artist, 11 years experience in Hawaiian archaeology, display designer, archaeological drafting, writing, historical research, and editing.

Brian Collin (Field Director)

B.A. in Anthropology, University of Hawaii, 8 years experience in Hawaiian archaeology on all major islands; recent course work in Pacific & Hawaiian archaeology, anthropology and Hawaiian language. Historical Research, Survey, Excavation, Archaeological Monitoring, Report Research, Writing, Drafting and Production.

Kaipo Akana (Field Technician)

7 years field experience in archaeology on Kauai (monitoring and excavations), Kauai Burial Council Member, Retired Federal (NASA) employee, and field experience on Kauai and Kaho'olawe.

Ka'ohalaal McGuire (Cultural Project Director)

B.A. in Anthropology, University of Hawaii at Hilo; 1996, minor in Hawaiian Studies, 3 years experience in providing cultural backgrounds for projects in Hawaiian archaeology; experience in scholarly writing; historic research; ethnographic interviewing; medical anthropology; analysis of artifacts; field work in archaeological survey; fluent speaker of Hawaiian; translation work.

Anthony Bush (Project Director)

B.A. in Secondary Ed. & Music; U.H. Manoa (1992) 6 years field experience in Hawaiian archaeology on 3 major islands; survey, monitoring, profile drawing, lab work including interpretation; excavation, dis-interment and re-interment according to NAGPRA guidelines; report writing, drafting & production

John Winiarski (Lab Supervisor)
 M.A. English as a Second Language (UH Manoa 1995), B.A. in Classics, U.C. Irvine, 8 years lab. and field work in archaeology; 11 years experience university research and data management; 2 years experience in geo-chemical and quantitative analysis; Laboratory Assistant; U.S. Borax Research; 9 years univ. bibliographic research & data management; 1 year industrial data management; 1 year newspaper production; data processing & final production; Water Lifesaving Techniques, CPR & First Aid certified, presently Windward Community College Instructor - Surf, Science & Technology.

Lailani Pye (Botanist and Office Support)
 B.A. in Sociology, Univ. of Hawaii/Manoa 1990, graduate & other courses in ecology, archaeology, anthropology, botany, geography and geology; contributing field botanist for Kaho'olawe Clean Up project (1995); office support and specifically provide historical and natural science background for archaeology reports; Bishop Museum Botany Collections Assistant 1987-1995; member Haw. Bot. Soc. (secretary), Trail & Mountain Club, Hii-o-Laka, Kauai (Koko'e Nat. Hist. Museum), Kona Hist. Soc., Lyman Museum Assoc., Maui Hist. Soc., Native Plant Soc. (Maui), Nat. Trop. Bot. Soc. (Kauai) and Soc. for Haw. Arch. and many other professional groups.

Victoria S. Creed (Historian and Computer Systems)
 Certificate of Historic Preservation, Univ. of Hawaii/Manoa 1993; Ph.D. 17th Cent. French, Univ. of Pennsylvania 1985, M.A. French 1969, B.A. German 1959, minor in Italian, Spanish, and History; Courses in Russian and Japanese; UH Assistant Professor of Languages; 20 years teaching; 10 years Hawaiian archaeological research experience; computer specialist; Report Design & Production; Scholarly writing; Pres. Waikona 'Aina Corp an internet database company of Hawaiian Land Commission claim documents.

There are also other support personnel and part-time associates

David Perzinski (Project Director)
 B.A. in Anthropology and Archaeology, Western Washington University (1998); Experience in field work, monitoring, survey, analysis and interpretation, lab analysis and report writing; trained in use of GPS, Northwest coast archaeology, lithic analysis, monitoring, museum archival research, molding and casting of cranial vessels in Plains Archaeology for repatriation in accordance with NAGPRA, experience in Paleontology lab, mainly with fossil vertebrates and invertebrates. PADI certified (scuba diving); HAZWOP training; CPR & First Aid

Mary Peribiski (Lab Assistant & Field Technician)
 B.A. in Anthropology and Archaeology, Western Washington University (1998); experience in lab analysis and interpretation; osteology and lithics, trained in archaeology lab at University of Alaska, Anchorage, proficient in scholarly writing, and a variety of computer programs; internship at museum in photo archives; training in Cultural Resource Management and NAGPRA; PADI certified (scuba diving); CPR & First Aid.

Kéhaulani E. Souza (Lab Assistant & Field Technician)
 B.A. in Anthropology, University of Hawaii (1998); Experience includes lab analysis of artifacts and midden, ceramics, bottles, reconnaissance and inventory survey work, monitoring, and report writing. Studied 2 years of Hawaiian Language, has traveled extensively as a Polynesian dancer, is Member of Kō'ehi Fishing Boat Club.

Thomas Devereux (Field Director)
 B.A. in Anthropology and History, University of California at Santa Barbara (1995). 3 years experience in Hawaiian archaeology on all major islands, Survey, Excavation, Monitoring, Report Research, Writing, Drafting and Production.

Jesse Yorek (Field Assistant, Lab Assistant)
 Enrolled as 4th year student in anthropology; 1 year field experience in archaeology on Kauai, Hawaii and Oahu Islands, experience in Survey, Data Recovery, Monitoring and Lab analysis of shell and faunal remains and other midden.

Other Associates and Sub-Consultants

William Kikuchi, Ph.D.

Kauai Community College archaeology and anthropology professor, petrographic studies, Hawaiian fibropods, trains students in archaeological techniques.

Michael Pietruszewski, Ph.D.

University of Hawaii 'I, Manoa, physical anthropology, osteological analysis.

Other consultants in Hawaiian language, Hawaiian history, radiocarbon dating, botany, floral and faunal identification, planning.

Areas of Experience

Reconnaissance, survey, excavations, coring, site stabilization, site and area management, mapping, aerial survey, recovery of human burials, stratigraphy, historic research, fibropods, beach sites, cave sites, petrographs, survey of inaccessible areas, historic archaeology, urban archaeology, federal and state regulations in historic preservation, cultural landscape studies

Field and Laboratory Equipment and Facilities

Cultural Surveys Hawaii 'I has a full range of field and laboratory equipment. The laboratory and office facility of 3,600 square feet is equipped with measuring and photographic equipment, scales, etc. and a Nikon petrographic microscope. There is also a sizable reference library of maps and books on Hawaiian archaeology and history.

Clients

County: Kauai County, Maui County, Honolulu Board of Water Supply, Honolulu Department of Public Works, Honolulu City and County Dept. of Transportation, Dept. of Housing, Board of Water Supply.

State: Div. of State Parks, Hawaii Community Development Authority, Dept. of Transportation, Hawaii Housing Authority, State Dept. of Agriculture, Hawaii Air National Guard, Dept. of Hawaiian Home Lands, Dept. of Accounting and General Services, Dept. of Business and Economic Development

Federal: U.S. Army Corps of Engineers, U.S. Air Force, National Radio Astronomy Observatory, U.S. Navy

Private and *Non Profit Groups

Alexander and Baldwin	Taiyo Pudotan
BPM Mining Corp	Sweeney Development Co.
Belt, Collins and Associates	R.M. Towill
Bingham Engineering	*Waiohi Mission
CH2M Hill	Ward Pacific
D.H. Reilly	
Dames and Moore	
Engineering Concepts Inc.	
*Friends of Polahi Palace	
Gamilon Corp.	
Hasigawa Konozen	
Hawaii Onori Corp.	
Hemmeter Resorts	
Hida Okamoto and Associates	
Imata and Associates	
Kalani Sunset Corp	
Kaluakoi Corp.	
Kamehameha Investment Corp.	
Joseph Kealoha Realtors	
Keanou-Kona Realty	
Keanou-Kona Resorts	
Kodani and Associates	
Kohala Ranch	
Lanai Company (Carle and Cook)	
Landmark Suites	
Lanbau Corp	
*Lifu 'okalani Trust	
Lone Star Hawaii	
M and E Pacific	
MCM Planning	
Marriott Hotels	
Maunakea Properties	
Moana Corp.	
Oceanic Properties.	
Pacific Atlas Hawaii Inc.	
Pacific Basin Resorts	
Gerald Park, Urban Planner	
Portugal and Associates	
Princeville Corp.	
Project Planners Hawaii	
Signal Oil	
Sports Shunko Group	
SSFM Engineers	

Sampling of Major Projects (exceeding \$50,000)	
1999	Kaho'olawe Cleanup for Parsons International, Island of Kaho'olawe; archaeological unit
1998	Burial Sites Testing for Oceanwide 1250 in North/South Kona
1998	Honokohau Data Recovery for Honokohau Partners
1998	Kahoolawe UXB Clearance Project, for Parsons Hawaii.
1997	Monitoring for Maui Central Park (Keopulani Park) for Maui County
1996	Model Clearance Project on Kahoolawe for Biogenesis Pacific, Inc.
1996	Archaeological Survey, Monitoring and Mitigation for the Ma'alaea to Lahaina Power Line Project for Maui Electric
1995	Archaeological Support Services for the Kaho'olawe Model Clearance Project for U.S. Navy
1994	Open-ended Archaeological Services for City and County Parks, Oahu
1994	Survey of 1200 Acres in the Ahupua'a of Kapuni at South Kona for Kapaia Partners through PBR Hawaii.
1994	Data Recovery of Archaeological Sites in the Manele Golf Course for Lanai Co, Castle and Cooke
1994	Data Recovery of Archaeological in a 5-Acre Parcel at Auhauke'e, Kailua-Kona for Lanihau Partners
1993	Archaeological Inventory of 2 alternative routes for Kealahou Parkway, Honokohau, Hawaii for Department of Transportation through Parsons Brinckerhoff.
1993	Data Recovery for Expansion of Lanihau Shopping Center, Kailua-Kona for Lanihau Partners
1993	Archaeological Inventory Survey of 1500 Acres in Hokuano, North and South Kona for 1250 Oceanwide Partners through PBR Hawaii
1993	Archaeological Inventory Survey for the Maalaea to Lahaina

1992	Powerline, Maui for Maui Electric through Daines and Moore
1992	Archaeological Monitoring and Burial Recovery at the Kapaia Sewerline, Kapaia and Waipouhi, Kauai for Kauai County through Park Engineering
1991	Archaeological Monitoring and Burial Recovery for the Hanalei to Laie Waterline, Koolauloa, Oahu for the Board of Water Supply
1991	Archaeological Inventory Survey of 778 acres at Ka'u, Island of Hawaii for Royal Coast Development. 1991 Inventory Survey of Palima Point, Ka'u, Island of Hawaii for MCM Planning.
1991	Archaeological Data Recovery for Kihuna Golf course Expansion, Kihuna, Kauai for Sports Shinko
1990	Archaeological Data Recovery, Kukuniia, Koloa, Kauai; of 300 acres for A & B Properties
1990	Inventory Survey of 300 acres Lanai Rural District, Manele for Castle and Cooke
1990	Pohakuloa Training Area Archaeological Assessment and Treatment Plan Pohakuloa, Island of Hawaii for Richard Sato and Associates
1990	Archaeological Testing and Monitoring at Keoneloa Bay Villas, Waiweli, Kauai
1989	Archaeological Survey of 2,400 acres, Kawaihae, Hawaii for Dept. of Hawaiian Homelands
1988	Archaeological Survey of 1000 acres at Kukuiula, Kauai for Alexander and Baldwin

Summary of Professional Experience in Hawaii
 Directed over 400 archaeological investigations in Hawaii, including reconnaissance, survey, subsurface testing and coring, historical research, archaeological site and area management, site stabilization and reconstruction. These studies have involved work on O'ahu, Kauai, Lanai, Molokai, Maui, Hawaii, Island and Kabo'olawe.

Investigations include small-scale reconnaissance, surveys of up to 3,000 acres, major excavations on all main islands, recovery of human burials, historic archaeology, investigation of beach sites, cave sites, mapping and investigation of Hawaiian fishponds and aerial surveys. Besides project reports, there are formal publications, professional papers, and research grants.

Special Contributions to Hawaiian Archaeology

1. Discovery and documentation of the oldest known human occupation on Kauai (Hale'ana, 980 A.D.)
2. Documentation of a previously unknown and one of the most complex Hawaiian irrigation systems in Hawaii, Koloa, Kauai.
3. Obtaining the first radiocarbon dates on Hawaiian fishponds with a coring technique especially designed for fishponds (Mokapu and Pu'uloa)
4. Excavation of the most intact bone fishhook workshop in Hawaii with documentation of raw materials and stages of manufacture (Kawakii, Molokai)
5. Developing the only complete archaeological record of an early Christian Mission Station in Hawaii (Waiohi, Hanalei, Kauai)
6. Most complete mapping study of a segment of the Kona Field System (Pahoehoe, Kapalaaha, La'aloa, Kona)
7. Rediscovery of extensive Hawaiian agricultural and habitation complexes in upper Hanalei Valley only briefly reported on in 1931
8. Rediscovery of Moia'ena Heiau, Ka'ena Point, O'ahu, thought to have been destroyed in 1940s.
9. Disinterment of 120 human burials from storm drain excavations at Queen and Punchbowl Street and coordination of reburial in Kawaiaha'o Cemetery
10. Excavation of monarchy materials on the grounds of Iolani Palace

1987	Archaeological Testing of Hawaii Air National Guard Facilities (Hickam Air Force Base)
1986	Archaeological Monitoring at Kaka'ako for Hawaii Community Development Authority
1985-86	Archaeological Excavations at Wai'anae Army Recreation Center, Poha'i Bay, Wai'anae, O'ahu for U.S. Army Corps of Engineers
1984	Archaeological Survey and Excavations for a 9-hole Golf Course Extension, for Keauhou-Kona Resort.
1983-84	Archaeological Survey and Excavation of 174 acres, Hahaione, Kona, for Gamlon Corp.
1981	A Management Plan for Archaeological Research at the Keauhou-Kona Resort, for Kamchamela Investment Corp.
1981	Archaeological and Paleontological Investigations at Barber's Point, Ewa, for U.S. Army Corps of Engineers
Geographical Experience	
O'ahu	Barber's Point, Bellows, Ewa Beach, Hau'ula, Honolulu, Iolani Palace, Kaena Pt., Kaka'ako, Kane'ohe, Keolu, Kipapa, Kulaoa, Laie, Lualuku, Makaha, Makua, Maunawili, Moanalua, Mokuapu, Nu'uana, Ohikihilo, Olomana, Pezeli Harbor, Pōkai Bay, Urban Honolulu, Waiahole, Wai'anae Valley, Waiuu, Waipahoehoe, Waipio
Hawaii	Hilo, Holiuaoa, Honalo, Kahala, Kailua, Kaloto, Ka'u, Kawahae, Keahole, KeahiKebe, Keauhou, King's Landing, Kohala, La'aloa, Laialilo, Lanikai, Pohakuloa, Puna, South Kona, South Point, Waimea.
Kauai	Hanalei Valley, Hale'ana, Hanalei, Kapa'a, Keonele, Kihuna, Kilauea, Koloa, Lihue, Po'ipua, Princeville, Waiau, Waimea, Waiohi.
Lana'i	Halei, Kooli
Molokai	West Molokai - Kahalo'i
Maui	Haleakala, Kaunapali, Kahului, Kihei, Wailuku.
Kabo'olawe	Entire island site survey 1976-1978, Monitoring 1995, 1995 Model Clean-up Monitoring; 1998-present Kabo'olawe Clean-up; Archaeological Unit

11. Documentation of Paleoenvironmental History of Kawauhi Murihikailua, O'ahu Through Sediment Coring
12. Ongoing cooperative educational project with Punahou School training High School Students in field archaeology
13. Ongoing cooperative educational project with Kaula 'i Community College training students in field archaeology.
14. Documentation of modern taro cultivation in Hawaiian communities of Ke'anehe and Waipuuhi, Maui for Cultural Landscape Study, sponsored by Maui County.
This report was a cooperative effort of Group 70 International, Inc., Dr. Davianus McGregor and Cultural Surveys Hawaii. It received the 1995 Outstanding Planning Project Award of the Hawaii Chapter of the American Planning Association.
15. Comprehensive Study of Methods of Traditional Hawaiian Fishing. Prepared for consideration of use in revival of traditional fishing practices on the island of Kaho'olawe

8. Work by firm or joint venture which best illustrates current qualifications relevant to this project (list not more than 10 projects.)

NAME AND DESCRIPTION	RESPONSIBILITY	OWNER	DATE	COST (\$1000)	RESP. OF FIRM
1. ARCHAEOLOGICAL MONITORING PACKAGE FOR KALAKAUA AVENUE 16" WATER MAIN PROJECT	Scope of work including preparation of a monitoring plan, monitoring, burial disinterments and a monitoring report.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	1999	Open-End	N/A
2. TESTING PROGRAM FOR THE KALAKAUA AVENUE 16" MAIN PROJECT	Scope of work included a testing program to minimize the impact of the project on human remains buried within the area and assessing the likelihood and density of human remains in the area; testing to ascertain the nature of the stratigraphy to determine whether any cultural deposits or human remains are present; reporting of results of each test unit and conclusions were sent to the State Historic Preservation Division Burials staff for dissemination to appropriate parties; and a brief final report was produced at the end of the construction work evaluating the efficacy of the testing program.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	2000	\$19	N/A
3. MITIGATION PLAN FOR THE KALAKAUA AVENUE 16" WATER MAIN PROJECT	Scope of work included development of a plan to eliminate or minimize the impact of the project on human remains buried within the area; development of plans to rebury the human remains who were disturbed; and consideration of suggestions proposed by lineal descendants and other community groups.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	2000	\$3	N/A
4. ARCHAEOLOGICAL SERVICES FOR THE 16-INCH WATERLINE, HAU'ULA TO LAIE	Scope of work included inspection of all open trenches, recording cultural stratigraphy, collecting and analyzing samples, submitting a report documenting all information recovered to the State Historic Preservation Division, and establishing procedures for the proper treatment of human remains with the construction contractors, State Historic Preservation Division, and the O'ahu Island Burial Council.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	1997	\$1	N/A
5. LAIE HAWAIIAN BURIAL REINTERMENT	Scope of work included preparation and implementation of a re-burial plan for human remains founding during construction work in the areas known as Meeao, Hau'ula, and Laie; preparation of a Work Plan detailing specific tasks, assignments, and timelines in concert with the work performed, coordinating all activities ensuring the appropriate and satisfactory participation of specific publics (community, government, private) concerned with the re-burial of human remains; and the preparation and submittal of reports described in the Work Plan.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	1997	\$15	N/A
6. WINDWARD MAINS ARCHAEOLOGICAL MONITORING PLAN	Scope of work included preparation of a archaeological monitoring plan within the appropriate time frame for the acceptance by the State Historic Preservation Division.	Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843	1999	\$3	N/A

NAME AND DESCRIPTION	RESPONSIBILITY	OWNER	DATE	COST (\$1000)	RESP. OF FIRM
7. ARCHAEOLOGICAL STUDIES AND OTHER INVESTIGATIVE SERVICES FOR A MONITORING PLAN, ON-SITE MONITORING, AND BURIAL TREATMENT AND MONITORING REPORT RELATED SERVICES AT HAU'ULA BEACH PARK	Scope of work included an archaeological monitoring plan specifying kinds of archaeological remains or historic properties are found and their location, documentation and notification of State Historic Preservation Division and relevant cultural groups in the case of culturally significant finds. Monitoring field methods, including site recording, stratigraphic documentation, excavation of exposed features and sample collection, laboratory analysis procedures, and report preparation. Archaeological monitoring included the procedures outlined in the SHPD approved Monitoring Plan.	Department of Design and Construction 650 South King Street Honolulu, HI 96813	1999	\$2	N/A
8. BURIAL DISINTERMENT AND ARCHAEOLOGICAL MONITORING FOR THE LEACH-FIELD INSTALLATION AT MOKULEIA BEACH PARK	Scope of work included the disinterment of what remains of one set of human remains which involved substantial screening of back dirt, the preparation and acceptance of an archaeological monitoring plan by the State Historic Preservation Division; archaeological monitoring for the remainder of the project including excavation of all areas for leach-field installation and monitoring of the backfilling of the leach-field excavations; and an archaeological burial disinterment/monitoring report that documented all findings and work undertaken.	Department of Design and Construction 650 South King Street Honolulu, HI 96813	1999	\$9	N/A
9. ARCHAEOLOGICAL INVENTORY SURVEY WITH SUBSURFACE TESTING RELATED TO IMPROVEMENTS AT ULEHAWA BEACH PARK, NANAKULI	Scope of work included background research on Ulehawa and the general vicinity through the study of historic sources, maps, archival documents, Land Commission claims, and early accounts; fieldwork consisting of documenting the known surface sites (bunkers and railroad tracks) as well as subsurface investigations. Surface site recording consisted of mapping, recording written descriptions, and photographing the features. Work also included laboratory work and report preparation including cataloging of artifacts and samples, radiocarbon dating, analysis of materials and report writing.	Department of Design and Construction 650 South King Street Honolulu, HI 96813	1999	\$29	N/A
10. ARCHAEOLOGICAL SUBSURFACE TESTING RELATED TO IMPROVEMENTS AT HAU'ULA BEACH PARK, KOOLAULO	Scope of work included background research on Hau'ula Park and the general vicinity through the study of historic sources, maps, archival documents, Land Commission claims, and early accounts; subsurface testing was accomplished through a combination of backhoe testing and hand augering; and laboratory work and report preparation including cataloging of artifacts and samples, submittals of two radiocarbon dating, and analysis of materials.	Department of Design and Construction 650 South King Street Honolulu, HI 96813	1999	\$11	N/A

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



March 22, 2001

JEFFREY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
CHARLES A. STEED, Vice-Chairman
JAN M. LYNN, AUMI
HERBERT B.K. KAOPUA, SR.
BARBARA KIM STANTON
BRUCE K. MINUAL, Ex-Officio
ROSS S. SAGAMURA, Ex-Officio
CLIFFORD S. JAMILE
Manager and Chief Engineer

Mr. Charles E. Calvet, Manager
The Gas Company
515 Kamakee Street
Honolulu, Hawaii 96814

Dear Mr. Calvet:

Subject: Your Letter of February 5, 2001 Regarding the Draft Environmental Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu, Oahu. IMK: 2-4-34: 08, 2-4-32: 01 and 02; 2-4-32, 30, 18, 17 and 14; and 2-1-39

Thank you for your letter regarding the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir project.

We acknowledge that The Gas Company maintains underground utility gas mains in the project vicinity. Construction plans will be submitted for your review during the design phase to minimize any potential conflicts with existing gas facilities.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: ✓ Sheryl Nojima, Shimabukuro, Endo & Yoshizaki, Inc.

THE GAS COMPANY
Citizens Energy Services

February 5, 2001

Ms. Kathryn Fujikami
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Ms Fujikami:

Subject: Draft Environmental Assessment
For Proposed Kalawahine 180 Reservoir

Please be advised that The Gas Company maintains underground utility gas mains in the project vicinity, which serves commercial and residential customers in the area. We would appreciate your consideration during the project planning and design process to minimize any potential conflicts with the existing gas facilities in the project area.

Thank you for the opportunity to comment on the Draft Environmental Assessment. Should there be any questions, or if additional information is desired, please call me at 594-5570.

Very truly yours,

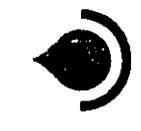
Charles E. Calvet, P.E.
Manager, Engineering

CEC:bs
01-103

cc: Office of Environmental Quality Control
✓ Ms. Sheryl Nojima, Shimabukuro, Endo & Yoshizaki, Inc.

THE GAS COMPANY
515 Kamakee Street Honolulu Hawaii 96814
PO Box 3000 Honolulu Hawaii 96802 9000
Telephone 808 535 5300 Facsimile 808 594 5430 SL441

COPY
JONGYI H. CHAN
EDDIE FLORES
CHARLES A. LITTO, Vice President
JAN HALLY ALUM
ROBERT S. K. KAOPULA, Sr.
BARBARA KIM STANTON
KAZUHIYASHIDA, E-Office
ROSS S. SASABANA, E-Office
CLIFFORD S. JAMILE
Manager and Chief Engineer



February 2, 2001

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
835 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843



Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

January 19, 2001

Ms. Sheryl Nojima
Shimabukuro, Endo & Yoshizaki, Inc.
1126 12th Avenue, Room 309
Honolulu, Hawaii 96816

Subject: **DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED KALAWAHINE
180 RESERVOIR - TMK: 2-4-34-08 (reservoir and access road) AND
2-4-32:01 & 02; 2-4-32, 30, 18, 17 & 14; AND 2-1-39 (waterline)**

Dear Ms. Nojima:

Thank you for providing Verizon Hawaii Incorporated, the opportunity to comment on the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir connection.

We have no comments or changes to the DEA at this time.

If there are any questions, please call Glenn Morita at 840-5809.

Sincerely Yours,

G. Morita
Section Manager -
Access Design

c: File
G. Morita

Mr. Jay Furukawa, Section Manager
Access Design
Verizon Hawaii, Inc.
P. O. Box 2200
Honolulu, Hawaii 96814

Dear Mr. Furukawa:

Subject: **Your Letter of January 19, 2001 Regarding the Draft Environmental
Assessment for the Proposed Kalawahine 180 Reservoir Project, Honolulu,
Oahu. TMK: 2-4-34; 08; 2-4-32; 01 and 02; 2-4-32, 30, 18, 17 and 14; and 2-1-39**

Thank you for reviewing the Draft Environmental Assessment for the proposed Kalawahine 180 Reservoir Project.

We acknowledge that you have no comments at this time.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

FOR CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Sheryl Nojima, Shimabukuro, Endo & Yoshizaki Engineers, Inc.

APPENDIX D

COPIES OF NEIGHBORHOOD BOARD MEETING MINUTES



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Makiki/Lower Punchbowl/Tantalus Neighborhood Board

MINUTES OF REGULAR MEETING
FEBRUARY 15, 2001
MAKIKI DISTRICT PARK
ARTS AND CRAFTS BUILDING

CALL TO ORDER: The meeting was called to order by Chair Steelquist at 7:15 p.m. A quorum was not present at this time.

MEMBERS PRESENT, Charles Carole, Tracy Ryan, John Steelquist, Joseph Zuiker, Ken Bell, Louis Crompton, Richard Stancliff, Norma Jean Nicholl, , Susan Lai Young.

MEMBERS ABSENT: John Bickel, John Bigay, George Tulekun: Li Anne Taft.

GUESTS: Bob Bramon (Parsons Brinkeroff), Rachalle Sebela (Councilmember Andy Mirikitani's Office), Capt. Stacy Higa (HFD-Makiki Station), David Horen, Jami Tores (Representative Brian Schatz's Office), Major Michael Tucker, Sgt. Brian West, Sgt. Roy Tsujioka (HPD), Carolyn Sawai (Board of Water Supply), Doris Chun, Bert Koide (Department of Parks and Recreation), Fran Klema, Arloa Ridder, Judy Gold (Senator Carol Fukunaga's Office), Councilmember Jon Yoshimura, Mark Soeda (Representative Sylvia Luke's Office), Scot Muraoka (Board of Water Supply), Gary Gill (Governor's Office), Keoki Miyamoto (Department of Transportation Services), Ben Diamond (Mayor's Office); Art Mori (Senator Rod Tam's Office), Lorraine Robinson (TJ Mahoney), Dean Chu (Neighborhood Commission Office staff).

FILLING OF VACANCIES, THREE SEATS, SUBDISTRICT 2 - Deferred due to lack of a quorum.

COMMUNITY CONCERNS:

HONOLULU FIRE DEPARTMENT _ Capt. Higa reported the following:

1. Statistics for the past month included: 2 structure, 3 brush, 4 rubbish, and 1 vehicle fire; 49 medical emergencies and 17 miscellaneous calls.

2. The safety tip for the month is "Install smoke detectors in your home. Put a smoke detector on each floor and near the bedrooms in your home. Put the smoke detector six to twelve inches below the ceiling and away from any air vents. Test the smoke detector each month."

Your address should be visible on both sides of your mailbox to help emergency vehicles

find your address.

Questions, answers and comments followed:

1. Followup will be done about a vacant house at the corner of Penasacola Street and Wilder Avenue. There is concern that it may be a fire hazard.
2. The highrise fire last month at 927 Prospect Street is believed to have been caused by an electrical short.
3. Unplugging unneeded electrical appliances is a wise precaution. Also, do not use extension cords as permanent wiring and do not overload outlets.

Capt. Higa was thanked for attending the meeting.

HONOLULU POLICE DEPARTMENT _ Sgt. West reported statistics for January 2001 compared to December 2000 included: robberies 2/2, burglaries 28/13, theft from vehicles 51/45, auto thefts 39/29, aggravated assaults 5/1, simple assaults 16/15, motor vehicle collisions 107/105, DUI 2/3, graffiti 9/4, family offenses 4/15, drug offenses 2/4.

Questions, answers and comments followed:

1. There have been no reports of driveby shootings.
2. Bell reported that burglaries have occurred at his condominium, where entry was gained by removing window louvers. The building security guard spotted a suspect, got a license number which was reported to police, but no followup by officers has been received. It was noted that sufficient evidence needs to be obtained to make an arrest. Major Tucker provided Bell a detective's number to call for more information about this case.
3. If you catch a burglar in your home, that person can be charged with criminal trespass. Concern was expressed that in such a case, besides calling police, there seems little you can do, such as trying to apprehend the suspect yourself.
4. Major Tucker requested the opportunity at an upcoming meeting to be placed on the agenda so he can solicit comments from the community on how the 3/12 work shift is working. The new shift, where officers work three, twelve-hour shifts in a row, then get four days off, is a one-year pilot program. They are halfway into the program, and he would like comments at this point. Officers like the new shift. Chair Steelquist will add this item to the agenda for either the March or April meeting.
5. Copies of Cage The Rage, brochure on stopping aggressive driving was distributed to interested persons.

Major Tucker, Sgt. West, and Sgt. Tsujioka were thanked for attending the meeting.

Carole and Young arrived during the above portion of the meeting, a quorum was now present.

RESIDENTS' CONCERNS:

REPLACEMENT OF PLANTER PLANTS ON KEWALO STREET - A resident expressed frustration with the long amount of time it took to get plants replaced by the City via the Board, and thanked Board member Carole for his personal efforts on resolving this matter. Councilmember Yoshimura and staff members for other elected officials present

reported that their offices can be contacted for matters such as this, and they will followup with the appropriate City or State agency to try and resolve the matter in a timely manner.

PARKING PROBLEM AT 1617 KEEAUMOKU STREET - A resident of this building reported that drivers parking too close to the driveway is creating a line-of-sight hazard for drivers leaving the building's parking lot. It was suggested that residents circulate a petition to have a no parking zone created next to the driveway. Keoki Miyamoto, Deputy Director, Department of Transportation Services, will followup with the resident.

DEPARTMENT OF PARKS AND RECREATION _ Bert Koide, Makiki Complex Supervisor, reported the following:

1. Spring programs are underway.
2. A water fountain will not be installed next to the skating facility. The department has determined that the water fountain next to the basketball courts is sufficient. It was noted that neighbors are complaining that youths are trespassing to use their water hoses.
3. Construction of the pool is believed to be on schedule. Mayor's Office representative Ben Diamond will followup with the Department of Design and Construction.

Questions answers and comments followed:

1. Additional benches at Pawa Park were requested.
2. Councilmember Yoshimura reported that a request can be made to put construction of a water fountain next to the skating facility into the budget. The Council will receive the budget from the Administration for Council review on March 2 and must pass it by June 15.

Koide was thanked for attending the meeting.

BOARD OF WATER SUPPLY _ Carolyn Sawai, from the Board of Water Supply, reported the following:

1. There were no main breaks in the area last month.
2. Detect a Leak Week is March 4-10. Informational brochures and dye tablets to detect leaks in toilet tanks were available for interested persons, and additional tablets are available at satellite city halls and the Board of Water Supply's Beretania Street office.

Free single family home leak detection checks are available. Interested persons may call 527-6124 for more information.

3. The AkamaiRead meters will be installed in this area. Approximately three weeks prior to the installation, residents will receive a letter about the coming installation. Approximately one week prior to installation, a notice will be hung on the door. Just prior to installation, someone will come to each residents' door to advise them of the installation which may require turning off the water for a short time. It was noted that some meters can be modified without replacing them and turning off the water.

Sawai was thanked for attending the meeting.

NETWORK OF NEIGHBORHOOD BOARDS _ Chair Steelquist reported the following:

VISION TEAM PROJECTS _ The contract for sidewalk construction has not been signed, though though the contractor was selected.

ELECTED OFFICIALS:

COUNCILMEMBER JON YOSHIMURA _ Councilmember Yoshimura and Bob Bramen, consultant, provided a brief background on the City's future transit plans. The project began about two years ago with the Trans 2K project to solicit community input, where the community expressed the desire the project be done without raising taxes, there be a tunnel under Pearl Harbor, a hub and spoke system be developed, and a bus rapid transit (BRT) system be developed.

Do date the tunnel has been eliminated, the hub and spoke system has been established in the leeward areas, and a bus rapid transit system is being planned. The Department of Transportation Services is in the process of applying for federal funds for the BRT system. Working groups on the BRT have been established to enable the community to discuss details. Interested persons should join one of the groups: Makiki, Kakaako, McCully-Moiliili, Pearl City/Aiea, Waikiki. An Environmental Impact Statement is in progress and should be completed by November. The application will then be forwarded to the Federal Transit Administration, which should render a decision within six months. Then funds can be expended for the design phase.

Questions, answers and comments followed:

1. The bus rapid transit system is designed to be flexible, uses dedicated bus lanes, which is cheaper than a fixed rail system.
2. The working groups are intended to help prevent problems, such as backups on streets where the BRT lanes are created, before they occur.
3. The system will help people who ride it reach their destinations faster. It will not similarly help drivers.
4. It has been suggested that a test of the system be conducted by closing off lanes, but doing so would not be representative of the whole system.
5. The system will help transportation needs for the future. Other cities have been planned around such a transportation system. In Honolulu, redevelopment can occur along the routes.
6. Work is being done to make the system attractive to use.
7. The system can be developed in phases.
8. Vehicles would use existing technology that reduces or eliminates the use of diesel powered vehicles.
9. It was suggested the test closing of lanes and use of vehicles be done with regular buses.
10. There will be circulator buses within individual neighborhoods.
11. Vehicles would arrive frequently, every two to four, or four to eight minutes, depending on routes and time of day.

Councilmember Yoshimura and Bramen were thanked for their report.

RESIDENTS' CONCERNS, CONTINUED:

24 HOUR STAFFING FOR YOUNG STREET AMBULANCE _ A paramedic assigned to the Pawaa Station, reported that the station operates only from 7:00 a.m. _ 11:00 p.m. Between 11:00 p.m. _ 7:00 a.m. ambulances must arrive from other districts, which can delay response times especially if the closest ones are on a call and one must come from even further way. The legislature is working on Bill 390, which would provide additional funding for staffing ambulances.

There was no action by the Board on this matter.

ELECTED OFFICIALS, CONTINUED:

COUNCILMEMBER ANDY MIRIKITANI _ Rachelle Sebela, from Councilmember Mirikitani's Office, distributed the monthly report and highlighted/added the following:

1. Work is being done to place a park symbol on the Development Plan, Public Facilities Plan Map, for the Pawaa Park. The symbol is needed to fund planning, design, and construction.
2. Followup will be done on the request for a water fountain at the Makiki District Park skating facility.
3. The bus rapid transit test is in committee at this time.

Questions, answers and comments followed:

Followup will be done about potholes at Piikoi Street and Wilder Avenue.

Sebela was thanked for attending the meeting.

SENATOR CAROL FUKUNAGA _ Judy Gold, from Senator Fukunaga's Office, distributed the monthly report and highlighted/added the following

1. Staff member Dave Chun will now be serving on the Washington D.C. staff of US Senator Dan Akaka.
2. The report includes a list of bills of interest, including ones on school repair and maintenance; development of a non-chemical microorganism based water treatment project and a master plan for effective community stewardship for the Ala Wai Watershed; establishment of a Honolulu City Lights Lookout, as an alternative to the Roundtop Drive lookout.
3. There will be a community briefing on the State Department of Transportation's Punahou Street offramp plans, February 20, 6:30 p.m., Central Union Church Youth Center.

Gold was thanked for attending the meeting.

SENATOR ROD TAM _ Art Mori, from Senator Tam's Office, distributed the monthly report and reported that Friday is the deadline for first lateral of bills, where bills must pass to the second committee hearing them.

Mori was thanked for attending the meeting.

REPRESENTATIVE BRIAN SCHATZ _ Jami Torres, from Representative Schatz's Office, distributed the monthly report and highlighted/added the following:

1. There will be a community briefing on the State Department of Transportation's Punahou Street off-ramp plans, February 20, 6:30 p.m., Central Union Church Youth Center.
2. The public is welcome to call with concerns.

Torres was thanked for attending the meeting.

REPRESENTATIVE SYLVIA LUKE - Mark Soeda, from Representative Luke's Office, reported the following:

1. Tomorrow is the first lateral deadline where bills must be passed to the next committee hearing them.
2. A town meeting is being planned for March 13, Roosevelt High School cafeteria, 6:00 p.m.
3. The House Majority agenda includes bills relating to education, such as providing more funds for textbooks and computers.

Sueda was thanked for attending the meeting.

MAYOR'S OFFICE _ Ben Diamond, representing the Mayor's Office, provided copies of the Mayor's State of the City Address and the City's Legislative Package for Board members to review. He reported that he will followup on several items requiring the City's attention mentioned earlier in the meeting.

Diamond was thanked for attending the meeting.

GOVERNOR'S OFFICE _ Gary Gill, representing the Governor's Office, reported the following:

1. Copies of the Governor's State of the State Address were provided for interested persons to review.
2. Followup was done regarding a rat problem at a condominium, and management was advised on how to deal with the problem.
3. The State has no rules regarding upper chlorination levels of swimming pools. He noted that the State of Washington sets such levels at 5 parts per million for swimming pools and 10 parts per million for spas.

Questions, answers and comments followed:

1. There are no known adverse health effects of exposure to over chlorinated pools.
2. The Lyon Arboretum is under the jurisdiction of the University of Hawaii. Access road repaving should be part of its budget.

Gill was thanked for attending the meeting.

FILLING OF VACANCIES, THREE SEATS, SUBDISTRICT 2 _ There were no interested candidates present.

APPROVAL OF MINUTES FOR JANUARY 18, 2001 MEETING - The following corrections were made:

Page 3, under Senator Carol Fukunaga, it should read ".1) The legislature added \$51 million to last year's Department of Accounting and General Services base budget of \$26 million. This year the Senate is seeking \$100 million a year for school improvements."

Page 3, under Senator Carol Fukunaga, discussion followed: should read ".2) In response to an inquiry regarding where the funds are coming from, Senator Fukunaga replied that state tax revenues have been increased. The State can also accomplish more in school repair and maintenance by using volunteers, or donated services from private sector contractors and professionals."

The minutes were approved as corrected.

TREASURER'S REPORT: Young reported that for the month of January the Operating Account balance is \$865.14, the Publicity Account balance is \$3864.00, and the Refreshment Account balance is \$120.00.

UNFINISHED BUSINESS:

MAKIKI/TANTALUS RECREATION AREA _ No report.

LIMOUSINE PROBLEMS ON ROUNDTOP DRIVE Steequist reported that the Tantalus Community Association testified on SB 1450 regarding development of alternatives to the Roundtop and Tantalus Drives lookouts as stops for limousines.

PAWAA PARK - Zuiker moved and Carole seconded that the Board write a letter about adding additional benches. Discussion followed where it was noted that the park is flat and that a copy of the master plan for the park be obtained from the Department of Design and Construction. **Zuiker withdrew the motion, Carole withdrew the second.**

Chair Steelquist will request a presentation on the master plan.

H-1 CORRIDOR TASK FORCE _ In response to a question, Chair Steelquist reported that the Lunalilo Off ramp remains closed during posted hours for work on sewer and water lines, and seismic retrofit work. Once the sewer and water line work are completed, the seismic work will continue for sometime longer. The roadway will be resurfaced once the work is completed.

PRIMARY URBAN CENTER DEVELOPMENT PLAN UPDATE _ No report.

BARK PARK _ It was noted that Archie Baker Park has been suggested as the site of a park park for this area.

ROOSEVELT HIGH SCHOOL, BEAUTIFICATION ON THE CORNER OF NEHOA STREET AND MOTT SMITH DRIVE - No report.

Chair Steequist reported that the Department of Transportation Services will be installing

additional signs on Nehoa Street to slow down traffic fronting the school on Nehoa Street.

WALMART STORE _ No report.

SKATEPARK, WATER FOUNTAIN INSTALLATION _ Discussed earlier in the meeting.

SCHUMAN CARRIAGE LIGHTS _ Chair Steelquist reported that the problem has been resolved.

NEW BUSINESS:

UNDERGROUNDING OF LINES ON WILDER AVENUE _ No report.

KALAWAHINE 180 RESERVOIR - Scott Muraoka, Kathy Fujikame, and Cheryl Nojima, from the Board of Water Supply, reported they are in the process of developing a two million gallon reservoir in the Kalawahine residential subdivision. An Environmental Assessment has been prepared.

The Kalawahine subdivision site, mauka of Roosevelt and Lincoln schools, encompasses some six acres, and is owned by the Board of Water Supply. Several years ago the Department of Hawaiian Homelands developed the residential subdivision on 4.5 acres of the site. The reservoir would be built on the remaining land. The project includes the two million gallon, 138 foot diameter, and 21.5 foot high reservoir, 24 inch mains, and an access road. The reservoir is needed to provide additional reserve capacity. The site has no endangered plants, animals or significant archeological sites. Landscaping and color scheme will be designed to make the reservoir blend into the surrounding area. A traffic management plan will be prepared. Construction could begin by the end of 2003 and take one year to complete. Design has not started yet.

Questions, answers and comments followed:

1. Water to fill the reservoir will come from the Beretania Station.
2. A meeting was held with Kalawahine subdivision residents to update them on the project. They were made aware of the project when they purchased their homes.
3. The reservoir needs to be at this location and elevation.
4. Construction will require cutting and filling on the site.
5. The project will not affect local water pressure.
6. The reservoir will be constructed of concrete.
7. The landscaping and color scheme will minimize the visual impact.
8. This is one of six more reservoirs needed in the area between Kahala and Aliamanu.

Stancliff moved and Young seconded that the Board support the project. Discussion followed on whether or not Kalawahine residents were adequately notified of this project. **Stancliff withdrew the motion, Young withdrew the second.**

Muraoka, Fujikame and Nojima were thanked for attending the meeting. They will attend the next Board meeting when more residents are present.

Stancliff left the meeting at this time.

MAKIKI DISTRICT PARK SWIMMING POOL AND FILTER SYSTEM - Chair Steelquist report receipt of a call from a person concerned that the filter system as planned will cost more than an alternate system in long run. Diamond will followup on the maintenance costs of the planned system.

SIDEWALKS ON LUNALILO AND PENSACOLA STEETS BLOCKED OFF _ It was noted that the sidewalks are now clear, the blocking was likely related to the H-1 project mentioned earlier.

ABANDONED HOUSE ON THE CORNER OF PENSACOLA STREET AND WILDER AVENUE _ Kawano moved and Zuiker seconded that the Board send a letter to the City on this matter. The motion carried unanimously.

TRAFFIC CALMING NEAR ROOSEVELT HIGH SCHOOL - Chair Steelquist reported earlier on this matter.

COMMITTEE REPORTS

NEWSLETTER _ Zuiker distributed a draft of the upcoming Board newsletter for members to review.

PLANNING AND ZONING _ Carole reported that the City Council is considering Bill 86, relating to elderly housing projects. The bill would, among other changes to existing regulations, increase density, reduce parking requirements . Carole moved and Nicholl seconded that the Board support this bill. Discussion followed. The motion failed to carry, 8-0-1. Ryan abstained.

HEALTH, SAFETY AND ENVIRONMENT _ Zuiker reported that the sidewalk anchor clamp for a Hawaiian Electric Company utility pole at Nehoa and Keeaumoku Street remains and continues to present a hazard to pedestrians. Also, a piece of rebar is sticking out of the sidewalk on Makiki Heights Drive and Nehoa Street.

There were no other committee reports.

ANNOUNCEMENTS:

Correspondence received was briefly reviewed by Chair Steelquist and made available for interested persons to review.

ADJOURNMENT: The meeting was adjourned at 10:05 p.m.

Submitted by,

Dean Chu
Neighborhood Assistant



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Makiki/Lower Punchbowl/Tantalus Neighborhood Board

MINUTES OF REGULAR MEETING MARCH 15, 2001 MAKIKI DISTRICT PARK ARTS AND CRAFTS BUILDING

CALL TO ORDER- Chair Steelquist called the meeting to order at 7:20 p.m. with no quorum present at the time.

MEMBERS PRESENT: John Steelquist, John Bigay, Joseph Zuiker, Louis Crompton, Richard Stancliff, Norma Jean Nicholl, Li Anne Taft, Susan Lai Young, SuAnn Bamer (newly appointed), Samuel Mitchell, (newly appointed).

MEMBERS ABSENT: Richard Kawano, Tracy Ryan, John BickeI, Ken Bell-excused, Charles Carole, George Tulenkun.

GUESTS: Lt. Col Ann S. Freed (USARPAC), Sgt Maj. Karen Murdock (USARPAC), Maj. Michael Tucker, Sgt. Les Hite, Capt. Mark Nakagawa, Lt. Ronald Yuen, Sgt. Clayton Lai, Officer Boyd Kamikawa, Officer Jon Nakashima (HPD-District 1), Bert Koide (Department of Parks and Recreation), Arloa Ridder, Judy Gold (Senator Carol Fukunaga's office), Dirk Soma, George Kamau, Lois L. Lee, Leimomi Motoyama, Kaipo Menecke, Denise Ka'a'a, Brett Aweau (Honolulu Fire Department Makiki Station), Paul Kema, Carolyn Sawai (Board of Water Supply), Scott Muraoka (Board of Water Supply), Adrian Lewis, Mark Hee, JoAnn Tao, Kandy Key, Karlotta Ka'a'a. Lorraine Robinson, Anlin Hirahara, Ryan Motoyama, Keahi Ahina-Lewis, George E.L. Crawford IV, Keola E.L. Crawford, Punawai Kapanui, Bridget K. Kekauoha. Emma L. Wright, Chris Ovitt (John Yoshimura's office), Art Mori (Senator Rod Tam's office), Diane Dunphy, Abellina Shaw (Mayor's Office), Murray Towil, Nola Frank (Neighborhood Commission office staff).

Taft and arrived at 7:30 p.m. At 7:34 pm with the arrival of Young a quorum was present.

FILLING OF VACANCIES

Two community members SuAnn Bamer and Sam Mitchell volunteered to fill the vacancies on the Board. They spoke about themselves, shared their experiences and would like to be involved in the community.

Without objection the Board voted unanimously.

The Neighborhood Assistant administered the oath of office to SuAnn Bamer and Samuel

Mitchell the two new Board members for Subdistrict two.

Bamer and Mitchell were thanked for filling the vacancies

COMMUNITY CONCERNS

HONOLULU FIRE DEPARTMENT - Capt. Aweau reported the following: Statistics for the month of February include: 6 structure, 0 brush, 0 rubbish, 2 vehicle, 41 medical emergencies, 13 miscellaneous.

Safety Tip of the Month - "Cooking fires are the leading cause of home fires and second major cause of death among older adults. If you are cooking and must leave the kitchen, even for only a few minutes, turn off the stove. Keep a fire extinguisher (minimum 2A10BC) in or near your kitchen and know how to use it

Suggestion for the month - Keep Fire hydrants in your neighborhood clear of obstruction, i.e., parked cars, weeds, or debris.

Questions, answers and comments followed:

The Fire Department is aware of the abandoned house at the corner of Pensacola Street and Wilder Avenue. It appears that the yard has been cleaned up and the property will be checked regularly.

Capt. Aweau was thanked for attending the meeting.

POLICE DEPARTMENT- Lt. Yuen reported the statistics for February 2001 compared to January 2001.

1. Robberies 3/2, burglaries 26/29, theft from vehicles 32/51, auto thefts 36/39, aggravated assault 2/5, simple assault 1 2/1 7, motor vehicle collisions 109/115, DUI 4/2, graffiti 5/9, family offense 4/5, drug offenses 3/6.

Questions, answers and comments followed:

1. A drug offense could be included with an arrest.
2. Beat 161 area includes Tantalus and Round Top Drive.
3. Lower sector 3 includes beats 174 and 175.

Lt. Yuen was thanked for his report

Without objection the agenda was taken out of order.

Comments on HPD 12 Hour Shifts - Major Tucker, commander of District 1 - Honolulu explained the new shift schedule.

The schedule consists of three, twelve hour shifts with four days off. In the town area the shifts are 6 a.m. to 6 p.m. and the outskirts 9 a.m. to 9 p.m. Although there is a fatigue factor, the schedule allows the officers to spend more time with their families. This pilot program ends in October of this year. Maj. Tucker will return in a few months with feedback on how this program is progressing.

Questions, answers and comments followed:

1. A suggestion was made for next year. Instead of overtime, compensatory time should be given to the officers.
2. In response to the First Methodist Church being a substation. Tucker informed the Board that although it is a generous offer by the church, it is not used as a rest stop for the officers.

Major Tucker was thanked for attending the meeting.

PRESIDENT'S CONCERNS

None.

DEPARTMENT OF PARKS AND RECREATION - Bert Koike reported the following:

1. Due to the mercury spill at Halawa, he and his staff are on a 24-hour watch assisting the families who had to evacuate their homes.
2. In response to a question regarding Thomas Square deterioration, Koide will check into it.
3. Completion of the swimming pool at the recreation center is still in progress.

Mr. Koide was thanked for attending the meeting.

BOARD OF WATER SUPPLY

Carolyn Sawai reported the following:

1. No water main breaks in the month of February
2. E-billing is now available for customers. Log on to www.hbws.org. Anyone signing up between February and July 30, 2001 will receive a \$5.00 credit towards their first payment.

NETWORK OF NEIGHBORHOOD BOARDS - Vision Team Projects

- A. Sidewalks - Steelquist reported although a contractor has been selected, sidewalk construction has not started yet.
- B. "Blue Sky" Makiki Stream - No report.
- C. Watershed Projects - Murray Towill
 1. Towill presented to the Board the six projects that are being planned. The contract is with the Department of Natural Land and Resources and is state funded through the Capital Improvement Projects. They are seeking consulting teams to assist them and any help that the Board can offer.

Questions, answers and comments followed:

1. Responding to several questions the time line for these projects is as soon as possible. If the time line goes until the end of the year, an extension from the Department of Land and Natural Resources is needed.
2. Greenbelt and vegetative buffers can be constructed to serve as filters which can capture contaminant and eroded soil.
3. For the record, Chair Steelquist informed Towill to contact Will Chee Associates.

Without objection the agenda was taken out of order.

NEW BUSINESS

Kalawahine 180 Foot Reservoir - Chair Steelquist provided a background on the previous report to the guests. Scott Muraoka from the Board of Water Supply gave a detailed report on the reservoir in the Kalawahine residential subdivision.

Questions, answers and comments followed:

For the project: The reservoir is needed to improve the water system in Honolulu and that there is a water storage shortage. Water to fill the reservoir will come from the Beretania station. The landscaping and color scheme will minimize the visual impact.

Opposition: Upon purchase of the homes, the residents were told that a well or pumping

station was to be built. Impact on property value, view spoiled, noise and dust due to the construction. Property has been available to the Board of Water Supply since 1952 without anything being done to it. Residents would like to have a Boys & Girls Club or community center for the children. Suggestions were made that an alternative site be chose. An access road in back of the homes of the proposed reservoir has parents with children concerned.

Comments: Why not put the reservoir on State or City property. Board of Water Supply should work with the city to develop a forum. Can a smaller reservoir be constructed and still accomplish the goal? Zuiker applauds the Board of Water Supply at what they are trying to do, but they need to look at other places. Senator Rod Tam supports the Kalawahine residents.

Young commented that more information is needed and the groups should make compromises.

Taft moved that the Board oppose the project. Crompton seconded. Taft moved, seconded by Crompton to amending to express concern from the Board and work with the groups. Motion passed

Taft motioned, seconded by Crompton to amending to express concern from the Board and work with the groups. Motion passed - ayes - 7, nays - 3, abstain - 1

Scott Muraoka, the Residents of Kalawahine Streamside and Papakolea, were thanked for attending the meeting.

The agenda was restored to order.

ELECTED OFFICIALS

Representative Sylvia Luke - Representative Luke gave an update on the bills that failed. Two of which are fluoride in the water and the gambling bills. The bills moving are increase of standard tax deductions and increasing the minimum wage.

Questions, answers, comments followed:

1. Responding to a question regarding helmets while skateboarding, Representative Luke stated that educating everyone is better. The bill as written has a few problems.
2. Representative Luke stated that she appreciates the efforts and work of the Kalawahine group

Representative Luke was thanked for attending the meeting.

Representative Carol Fukunaga - Judy Gold, representing Representative Fukunaga reported that the Piikoi Pensacola one-way couplet (P28) is still on the plan. On March 19, 2001 a hearing with testimony will be held at Honolulu Hale, room #205 at 2:00 p.m. Unable to attend the meeting, Stancliff stated that he will e-mail or fax his testimony.

Senator Rod Tam - Art Mori representing Senator Tam distributed a report and highlighted the following: Senator Tam supports the teacher's raises and the Kalawahine Stream group.

Councilmember Jon Yoshimura - Chris Ovitt representing Councilmember Jon Yoshimura distributed a report.

MAYOR'S OFFICE - Abelina Shaw representing Mayor Jeremy Harris reported the following:

1. The Balanced Budget needs to go before the City Council.
2. Manage Competition Bill - contracting privatized companies is still alive.

3. Two hundred million dollars have been allotted in the budget for sewer projects.

Questions, answers, and comments followed:

1. Taft wanted to know about the City employment ups and downs. Responding, Shaw stated that new technology enables them to do the same jobs with less people.

GOVERNOR'S OFFICE - No representative was present.

APPROVAL OF MINUTES FOR FEBRUARY 15, 2001 REGULAR MEETING

Page 5 - Representative Brian Schatz, should read Jessie Torres
Without objection the minutes were approved.

TREASURER'S REPORT - Young reported that for the month of February the operating Account balance is \$737.69, the Publicity Account is \$3,864.00, and the Refreshment Account balance is \$120.00.

UNFINISHED BUSINESS

LIMOUSINE PROBLEMS ON ROUND TOP DRIVE - SB 1405, Honolulu City Tour Bill passed the Senate to the House on March 16, 2001.

PAWAA PARK - Several Board members commented that more benches are needed in the park.

Zuiker moved and Bamer seconded to request additional benches be constructed at Pawaa Park and there be low hedges or other plantings to provide a safety barrier between the park and alley way. The motion carried unanimously.

H-1 CORRIDOR TASK FORCE - Chair Steelquist reported that the project's start has been postponed for two months and it will take nine months for the on ramp.

BARK PARK - Taft gave an update on the part informing the Board that the chosen site is behind the Makiki 180 site reservoir.

1. The Board of Water Supply owns the parcel of land suggested for the park.
2. She recommended that a letter be written to Clifford Jamile, Manager and Chief Engineer for the Board of Water Supply for permission.
3. Time frame should be approximately a year and a half.
4. Log on to www.barkpark-honolulu.com for more information.

MAKIKI DISTRICT PARK SWIMMING POOL AND FILTER SYSTEM - A letter was received from the City thanking the Board for their comments.

There were no other reports.

NEW BUSINESS

MILITARY PRESENTATION - Lieutenant Colonel Ann Free, representing the Commander in Chief, U.S. Army reported the military and Superintendent of the Department of Education (DOE) have formed a Joint Venture Education Forum. The forum meets monthly to discuss educational issues within Hawaii's public school system. Since the forum's formation last year, they have developed a list of priorities. The form will provide the military community and the DOE with mutually beneficial results in years to come. Also, these benefits will help with the overall "Quality of Life" standards n education for all students in Hawaii. Other long-standing partnerships between the military and local community include

the Army's Military Assistance to Safety and Traffic (MAST). The Army provides a helicopter and medical team that can respond anywhere on Oahu in 10 minutes. They're on alert 24-hours a day and transport patients at no cost to the civilian community. Since 1074, MAST responded to nearly 7,000 times and airlifted more than 6,000 patients. The Army also works closely with HFD to control brush fires. Being a good neighbor, military volunteers and their families are involved in many other aspects of local community life, too. All the services actively support the Adopt the School Program in 100 different schools. The military contributes about \$640 million, nearly 20 percent of the total State tax revenue. On behalf of the Commander in Chief, U.S. Army, and nearly 43,000 military personnel stationed in Hawaii and their 65,000 family members, she thanked the Board for this opportunity.

Questions, answers and comments followed:

In response to questions, Lt. Col. Free stated the Military has high environmental standards.

A few concerns were about the training areas the military uses such as Makua Valley and Pohakuloa training area on the Big Island. Lt. Col. Free told the group that the military must train somewhere and Pohakuloa is not an option budget wise. The army is working with the Waianae Community to help find a solution regarding the use of Makua Valley for training.

Lt. Col. Free was thanked for her report.

UNDERGROUND LINES ON WILDER AVENUE - Deferred.

COMMITTEE REPORTS

NEWSLETTER - Zuiker reported the deadline for newsletter items was today. (March 15, 2001)

PLANNING AND ZONING - No report.

HEALTH, SAFETY AND ENVIRONMENT - Members are needed for this committee.

ANNOUNCEMENTS:

March 27, 2001, 7:00 p.m. the Ala Moana/Kakaako Neighborhood Board meeting at the Makiki Christian Church.

ADJOURNMENT - Zuiker moved, Taft seconded to adjourn the meeting. Without objection, Chair Steelquist adjourned the meeting at 10:00 p.m.

Submitted by,

Nola Frank
Neighborhood Assistant



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(As of April 19, 2001)

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Nuuanu/Punchbowl Neighborhood Board

MINUTES OF REGULAR MEETING
FEBRUARY 20, 2001
BOOTH DISTRICT PARK

CALL TO ORDER: The meeting was called to order by Chair Kurashige at 7:15 p.m. A quorum was present.

MEMBERS PRESENT: June Ikeda, Remy Luria, Michael Kilousky, Patt Spencer, Michael Chu, Audrey Hidano, Paula Kurashige, Joe Magaldi, Avon Yap.

MEMBERS ABSENT: Al Canopin, James Moikeha (notified), Puanani Richards (notified), Wendy Ogawa (notified), Sylvia Young (notified).

GUESTS: Kii McMannen (Senator Suzanne Chun Oakland's Office), Sgt. Randy Kobayashi and Lt. Karen Huston (HPD _ District 5, Kalihi, Lt. Ronald Yuen, Sgt. Marvin Freitas (HPD _ District 1, Honolulu), Capt. Dennis Lewis and Firefighter Lawrence Olivea (HFD _ Nuuanu Station), Fred Shears (Councilmember Jon Yoshimura's Office), Stephen Wong and Hazel Aguo (UH School of Nursing), Tom Noa (Department of Parks and Recreation), Iris Oda, Katherine Fujikami, Lester Fujikami, Scott Muraoka (Board of Water Supply), Gardner Brown, Art Mori (Senator Rod Tam's Office), Westley Chun, Representative Sylvia Luke, Marke Soeda (Representative Sylvia Luke's Office), Dean Chu (Neighborhood Commission Office staff).

INTRODUCTION OF GUESTS: The guests introduced themselves at this time.

A moment of silence was observed in honor of those who died in the sinking of the Japanese fishing vessel, and two Army helicopters earlier this month.

FILLING OF VACANCY, ONE SEAT IN SUBDISTRICT 2, PACIFIC HEIGHTS _
There were no interested candidates present.

APPROVAL OF MINUTES FOR THE JANUARY 16, 2001 REGULAR MEETING _
The following corrections were made:

Page 2, last paragraph, it should read ".introduced Sgt. John Vines who just transferred to the Kalihi Station..Sgt. Vines reported."

Spencer moved and Magaldi seconded that the minutes be approved as corrected. The

motion carried unanimously.

TREASURER'S REPORT: Spencer reported for the month of January the Operating Account balance is \$939.52, the Publicity Account is \$1751.00, and the Refreshment Account is \$120.00.

FIRE, POLICE AND COMMUNITY POLICING REPORTS:

HONOLULU FIRE DEPARTMENT _ Capt. Lewis reported the following:

1. The past month's statistics included: 2 brush and 1 vehicle fire, 27 medical, 4 miscellaneous calls, and provided assistance to other units by providing oxygen tanks. There were no major or unusual incidents.

2. The safety tip for the month is "Install smoke detectors in your home. Put a smoke detector on each floor and near the bedrooms in your home. Put the smoke detector six to twelve inches below the ceiling and away from any air vents. Test the smoke detector each month."

Your home address should be on both sides of your mailbox to ensure emergency vehicles find your address.

Capt. Lewis was thanked for attending the meeting.

NEIGHBORHOOD SECURITY WATCH _ Kurashige reported that there will be a Neighborhood Security Watch meeting on March 5, Kalani High School, 7:00 p.m. Chief of Police Donohue will be the guest speaker.

HONOLULU POLICE DEPARTMENT:

DISTRICT 1, HONOLULU _ Lt. Yuen reported statistics for the past month compared with December included: robberies 0/0, burglaries 9/3, thefts from vehicles 8/41, auto thefts 6/22, aggravated assaults 1/1, simple assaults 21/2, motor vehicle collisions 23/21, DUI 0/1, graffiti 2/0, family offenses 1/2, drug offenses 0/0.

Questions, answers and comments followed:

The Papakolea area is in Beat 160.

Lt. Yuen was thanked for his report.

DISTRICT 5, KALIHI _ Sgt. Kobayashi reported the following:

1. Statistics for December compared with January included: burglaries 9/12, auto thefts 7/4, assaults 0/0, robberies 0/0, property damage 9/3, domestic 2/3, family offenses 2/1.

2. Work is being done to obtain federal funds to do extra speeding enforcement on the Pali Highway.

3. The Pali Lookout is checked regularly at night by beat officers. The gates will be repaired by the Department of Land and Natural Resources. The police close the gates to make them appear to be locked.

Sgt. Kobayashi was thanked for his report.

COMMUNITY CONCERNS:

KEEAUMOKU AND HEULU STREETS ROUNDABOUT LANDSCAPING _ In response to a question, Magaldi reported that the landscaping will not be any more extensive than leaving the current trees as was called for in the plans.

PAUOA STREAM DUMPING PROBLEM _ Frustration was expressed about the ongoing dumping problem in Pauoa Stream. No sooner was it cleaned than more trash was dumped.

KAUMAKAPILI CHURCH TREE'S LITTERING SURROUNDING AREA - It was noted that a tree on Kaumakapili Church Cemetery grounds is causing a litter problem for the surrounding area; littering neighbors' yards, blocking storm drains, etc. Kilousky moved and Ikeda seconded that the Board write a letter to the church requesting they trim the koa tree in the cemetery because of the debris it creates on surrounding properties which creates a public nuisance. The motion carried unanimously.

UH NURSING SCHOOL HEALTH ASSESSMENT PROJECT _ Steven Wong, a UH Nursing School student, reported that they are working on a health assessment project for the Papakolea area. They will followup with the Neighborhood Commission Office on contacting the Papakolea Community Association.

BOARD OF WATER SUPPLY _ Iris Oda, from the Board of Water Supply, reported the following:

1. March 4-10 is Leak Detection Week, and an informational flyer on how to detect leaks were passed out. Dye tablets to put into the toilet tank were made available. Single family home leak-detection checks are available March 5-9, and interested persons can call 527-6124 for more information.

2. An informational brochure on tours of Board of Water Supply facilities was also made available for interested persons to review.

3. There were no main breaks in this area during the past month. On December 29 there was a break on Pacific Heights Road.

Questions, answers and comments followed:

Concern was expressed that residents of apartments and condominiums who do not have individual water meters have no incentive to conserve water. It was noted though, there is an educational program for hotel guests. Followup will be done about providing an educational program for apartment and condominium residents. Oda's number is 527-5245.

Oda was thanked for attending the meeting.

DEPARTMENT OF PARKS AND RECREATION _ Tom Noa reported the following:

The Booth District Park swimming pool is only 25 yards long, and there is no requirement for it to have a wheelchair accessible ramp into the pool. The existing lift meets ADA requirements, and construction of a ramp could result in the loss of one lane. The Makiki District Park swimming pool currently under construction is also only 25 yards long and will not be equipped with a handicapped accessible ramp, but will have a lift. A resident present

estimated the cost of a ramp at \$145,000.

Noa was thanked for attending the meeting.

MAYOR'S OFFICE _ Magaldi reported the following:

DELAYED TRAFFIC GREEN SIGNALS AT QUEEN EMMA AND SCHOOL STREETS, AND QUEEN EMMA STREET AND VINEYARD BOULEVARD _ The State Department of Transportation is still evaluating this matter. If a change is made at Queen Emma Street and Vineyard Boulevard, some on-street parking will be lost.

MISSING "NO PARKING" SIGNS ON QUEEN EMMA STREET ON THE H-1 OVERPASS _ In response to a question, he noted that the signs here have been stolen and replaced a number of times. Followup will be done with the State Department of Transportation as this area is under their jurisdiction.

LUSITANA STREET RESURFACING _ Lusitana Street, between School Street and Pauoa Road is scheduled for resurfacing this summer.

DIP ON PACIFIC HEIGHTS ROAD _ An investigation determined the dip is a depressed utility trench patch, and road resurfacing is scheduled for this summer.

LIQUOR LICENSE APPLICATION _ An application for a liquor license at 1633 Nuuanu Avenue was withdrawn following opposition by residents of the condominium at 1634 Nuuanu Avenue.

DUMPING IN PAUOA STREAM _ Discussion followed where it was suggested that either letters be sent to area residents advising them not to dump trash into the stream, or some type of No Dumping signs be posted. Magaldi will followup on having signs posted.

FOUR-WAY STOP AT KAUHANE STREET AND TANTALUS DRIVE _ The Department of Transportation Services has determined that a four-way stop is not necessary and that police will monitor the intersection.

Magaldi was thanked for his report.

UNFINISHED BUSINESS:

OAHU METROPOLITAN PLANNING ORGANIZATION CITIZENS ADVISORY COUNCIL _ Chair Kurashige reported that a Board representative is needed to attend these meetings. No member or guest expressed interest in attending the meetings.

MARKS ESTATE _ Art Mori, from Senator Rod Tam's Office, reported that the Senator's Office has been following up on the matter and that the State Department of Transportation, which owns the property, has referred all questions on this matter to the Governor's Office. At this time the Governor's Office has not responded to Senator Tam's Office for more information, including when the property is to be sold. No copies of letters were sent to this Board.

Spencer reported that there have been suggestions that the Estate be used for a community center.

It was noted that because of the historical designation of the Estate, there are many restrictions on what a potential buyer could do with the property, making it unattractive to purchase.

It was also noted that a bill in the Legislature to make the Estate the Governor's home was not heard.

VISIONING TEAM _ Michael Chu reported the Vision Team meets the second Saturday of each month at the City Hall Annex. At last month's meeting there was discussion on projects to be presented to the Mayor to be included in the Capital Improvement Projects budget. They include:

NUUANU AREA COMMUNITY/SENIOR CITIZENS CENTER - Madeline Wong is the project champion, and a task force meeting on site selection is scheduled for February 26, St. Stephens Church, 6:30 p.m.

TRAFFIC STUDIES - Nuuanu Avenue at Pauoa Road.

RESTORATION OF AUWAI IN NUUANU VALLEY _ Identification and restoration of auwai in Nuuanu Valley.

IDENTIFICATION OF STREETS FOR UNDERGROUNDING OF UTILITY LINES _ Identification of thoroughfare streets for undergrounding of utility lines in the Liliha and Judd Street areas that are not close to residential areas.

RESOLVING TOUR BUS USE OF SAN ANTONIO AVENUE AND CONCORDIA STREETS _ Traffic and topographic studies, and evaluation of alternate routes have been done. A community meeting was held on Saturday, February 17, preceded by a meeting with the tour companies the day before. The tour companies were cooperative and voluntarily agreed not to use large buses on San Antonio Avenue. Actually, most operators thought their drivers were staying off San Antonio. At the community meeting, a 2-1 vote supported a proposal to make San Antonio Avenue one way, mauka bound, and to leave Concordia Street two way for a six-month trial period to determine if there are any adverse impacts to surrounding areas. A private consultant, Austin Tsusumi, is working on this project.

To date, Chu reported he has received 16 calls, some duplicates, of tour buses violating the voluntary agreement.

It was suggested there be a law restricting buses from these streets and that signs be posted as is done on King and River Streets Downtown, but it was noted a specific ordinance allows this restriction, and a specific ordinance would be required for a similar restriction on San Antonio Avenue and Concordia Streets. Magaldi will followup.

The remaining Unfinished Business items were deferred to take New Business at this time. There were no objections.

NEW BUSINESS:

HOSPICE HAWAII _ Deferred, no representative was present.

TRAFFIC ENFORCEMENT DEMONSTRATION PROJECT _ Westley Chun distributed copies of the Pali Highway Safety Task Force newsletter Kahilona, to those present. He reported the following:

1. Their next meeting is scheduled for May 17, to review the draft Nuuanu Valley beautification plan, recommend which bus stops and Pali Highway median openings should

be removed or relocated. Their September 20 meeting will review Pali Highway safety improvements and pre-final Nuuanu Valley beautification plan.

2. The State Department of Transportation is requesting suggestions on where to locate photo red light equipment that takes pictures of drivers speeding. There will be only 10 sites state-wide where this equipment will be installed. Pali Highway is the number 1, at Waokanaka Street; and number 3, at School Street and Pali Highway, sites with the most major accidents. He requested support of the Pali Highway as one of the selected locations. Discussion followed. **Luria moved and Hidano seconded that the Board support action for a demonstration photo red light project at Pali Highway and Waokanaka Street, and Pali Highway and School Street. The motion carried unanimously.**

BLINKING EMBEDDED GROUND LIGHTS AT MOANAWAI PLACE _ Chun reported that these types of lights previously tested at Pali Highway and Jack Lane, are being installed at a Waianae location and proposed that these types of lights be installed on Pali Highway at Moanawai Place. The estimated cost is \$40,000. It was noted that this location was selected because Moanawai Place serves as a pedestrian route for Laimi Road area residents. It was suggested that these lights also be installed near the Summer Palace. Chun will followup on this suggestion.

Chu moved and Hidano seconded that the Board support the Pali Highway Safety Task Force for embedded ground lights to be funded for Pali Highway. Discussion followed. The motion carried, 8-1. Magaldi opposed.

CLOSURE OF BUS SHELTER/BUS STOP AT PALI HIGHWAY/NIOLOPA PLACE _ Chun reported that the Department of Transportation proposed in December 1999 that the crosswalk be removed. It was subsequently removed, but the bus stop remains, and pedestrians continue to jaywalk across the highway to get to the bus stop. This matter will be discussed at the task force's next meeting.

KALAWAHINE 180 RESERVOIR - Scott Muraoka and Kathy Fujikame, from the Board of Water Supply reported that they are planning a two million gallon reservoir on the Kalawahine subdivision site, mauka of Roosevelt and Lincoln schools, which encompasses some six acres, and is owned by the Board of Water Supply. Several years ago the Department of Hawaiian Homelands developed the residential subdivision on 4.5 acres of the site. The reservoir would be built on the remaining land. The project includes the two million gallon, 138 foot diameter, and 21.5 foot high reservoir, 24 inch mains, and an access road. The reservoir is one of six needed in the Waialae to Aliamanu area to provide additional reserve capacity. The site has no endangered plants, animals or significant archeological sites. Landscaping and color scheme will be designed to make the reservoir blend into the surrounding area. A traffic management plan will be prepared. Construction could begin by the end of 2003 and take one year to complete. The water main between the reservoir and the Beretania Street pump station would run along Pensacola, Thurston and Green Streets. Design has not started yet.

Questions, answers and comments followed:

1. The color scheme has been selected to help blend in the reservoir into the surrounding area.
2. They are only in the preliminary planning stages at this time; no design work has begun.
3. An informational presentation was made to Kalawahine subdivision residents

earlier this month, and the Makiki/Punchbowl/Tantalus Neighborhood Board last week.

Magaldi moved and Spencer seconded that the meeting be extended 15 minutes. The motion carried unanimously.

4. This location is ideal, it is at the desired elevation and the Board of Water Supply owns the land.

5. If the site were larger, a larger reservoir would be preferred on this site.

6. All construction could be completed within one year.

7. The Department of Hawaiian Homelands was aware of the Board of Water Supply's plans to build a reservoir on this site.

8. They will be making another presentation to the Makiki/Lower Punchbowl/Tantalus Neighborhood Board next month.

9. The Papakolea Community Association was made aware of the reservoir project; and members were present at the meeting with the Kalawahine subdivision residents. At that meeting approximately 60 residents were present, and some had concerns about the visual impact; other residents reported that they were not notified of the project (which was disclosed in sales contracts).

Hidano moved and Ikeda seconded to request a one-month extension to the Environmental Assessment comment period. The motion carried unanimously.

Kilousky moved and Yap seconded to extend the meeting 10 minutes. The motion carried unanimously.

ELECTED OFFICIALS:

GOVERNOR'S OFFICE _ No representative was present.

SENATOR ROD TAM _ Art Mori, from Senator Tam's Office, reported that they have requested the State Department of Transportation make permanent repairs to the Pali Lookout gates, which were damaged when a suspect rammed the gate when trying to escape from police officers several months ago.

SENATOR SUZANNE CHUN OAKLAND _ Kii McMannen, from Senator Chun Oakland's Office, distributed an informational packet to Board members. A copy of some bills of interest was provided to the Chair for the Board's review. Other items in the packet include a copy of the H-1 Corridor newsletter.

McMannen was thanked for attending the meeting.

REPRESENTATIVE SYLVIA LUKE _ Representative Luke highlighted/added the following to her monthly report that was distributed earlier in the meeting:

1. A stalemate was broken, and the House passed about 260 bills to meet the first lateral deadline. Bills now go to the money committees.

2. Recall of some measures will be allowed.

3. A federal judge is urging the State's compliance to the Felix Consent Decree.

Representative Luke was thanked for attending the meeting.

There were no other reports.

ADJOURNMENT: The meeting was adjourned at 9:35 p.m.

Submitted by,

**Dean Chu
Neighborhood Assistant**



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SEY Engineers

From: Frank, Nola J. [nfrank@co.honolulu.hi.us]

Sent: Tuesday, June 04, 2002 8:10 AM

To: 'seyeng@lava.net'

Subject: per ur request Neighborhood Board No. 12 March 2001 minutes

6/4/2002

**MEETING OF REGULAR MEETING
MARCH 20, 2001
BOOTH DISTRICT PARK**

CALL TO ORDER: Chair Kurashige called the meeting to order at 7:15 p.m. A quorum was present at 7:20 p.m.

Chair Kurashige expressed the Board's deepest sympathy to the Perry family from Neighborhood Board No.12 on their loss of their son George Perry in the U.S. Army helicopter crash. Chair Kurashige informed the board that she was not aware that the Perry family resided in upper Nuuanu, Kaohinani Street.

MEMBERS PRESENT: Al Canopin, June Ikeda, Remy Luria, Puanani Richards, Michael Kilousky, Wendy Ogawa, Patt Spencer, Sylvia Young, Audrey Hidano, Paula Kurashige.

MEMBERS ABSENT: James Mo'ikeha, Michael Chu (notified), Joe Magaldi (notified), Avon Yap (excused).

GUESTS: David Yamada (Honolulu Fire Department), Paul Kema, Iris Oda (Board of Water Supply), Mark Hee, Rae Loui Aulii Hirahara, Lois L. Lee, Joseph Nahinu Jr., Leimomi Motoyama, Sgt. Gordon Costa (District 5, Honolulu Police Department, Mason Aiona, Christopher Anderson, Bob Freitas, Chris Orvitt (Councilmember Jon Yoshimura's office staff), Cleighton Goo (Hawaiian Homes), Melvin Apau, Col. Gary Triche (Hickam Air Force Base), Denise Ka'a'a (Kalawahine Streamside), Capt. David Yamada (Mayor's representative), Debra Bush, Puni Kekauoha (Papakolea Association), Leimamo Kapea, Emma Wright, Art Mori (Senator Rod Tam's office staff), Barry Usagawa and Scott Muraoka (Board of Water Supply) Eric Keawe, Gordon Brown, Kii Mannen (Senator Suzanne Chun Oakland's office staff), Nola Frank (Neighborhood Commission office staff).

Chair Kurashige deferred, unfinished business should be no.13.

The agenda was taken out of order to New Business.

Luria moved and Kilousky seconded that the agenda be taken out of order. Motion carried unanimously.

INTRODUCTION OF GUESTS: The guests introduced themselves at this time.

FILLING OF VACANCY SUB-DISTRICT 2 - PAUO/A/PACIFIC HEIGHTS - There were no interested candidates present.

APPROVAL OF MINUTES FOR THE FEBRUARY 16, 2001 REGULAR MEETING

Spencer moved that the minutes be approved as circulated, Kilousky seconded. The motion failed 7-0-3.

Abstaining: Canopin, Ogawa, and Young. The February minutes will be discussed at the next Board meeting.

HONOLULU FIRE DEPARTMENT: Capt. Yamada reported the following:

- 1). Statistics for February 2001 there were 37 alarms; auto fires - 5, Search - 1 lost hiker which involved the rescue unit and helicopter, hazardous materials - 1, medical incidents -

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MINUTES OF REGULAR MEETING
MARCH 20, 2001
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- 20, miscellaneous incidents - 10, which included activated alarms, blown roofs and assisting invalids.
- 2). Safety Tip for the month is "Cooking fires are the leading cause of home fires and the second major cause of death among older adults. If you are cooking and must leave the kitchen, even for a few minutes, turn off the stove. Turn off stoves and appliances promptly when finished and unplug small appliances when not in use".
 - 3). Suggestion for the month - Keep fire hydrants in your neighborhood clear of obstructions; i.e., parked cars, weeds, or debris.

Discussion followed: 1) In response to questions regarding Kaohinani Street, Capt. Yuen stated that in January Fire Chief Leonard wrote a letter to the Department of Transportation Services about the problem; 2) Capt. Yuen informed the Board that all fire stations are participating as drop - off points in the annual Hawaii Food Bank Drive April 8 through 14, and no perishable foods will be accepted. Chair Kurashige thanked Capt. Yuen for his report and was asked to stay for the Kalawahine 180 Reservoir Project information.

TREASURER'S REPORT: Patt Spencer reported the total current expenses were \$81.73 with an Operating account balance of \$857.79. Publicity balance is \$1751.00 and the Refreshment balance \$120.00 for the month of February. The Neighborhood Assistant was asked to check on the status of the refreshment fund reimbursements.

NEIGHBORHOOD SECURITY: Aiona reported that cars are being dumped along the roads of Pacific Heights and Papakolea. Aiona asked why cars are being dumped there.

At this time, Chair Kurashige relinquished the gavel to Spencer.

Kurashige informed the Board of the February 5 Neighborhood Security Watch meeting with Chief Donohue, who was asked to look at East Honolulu and the occurring crimes. Car thefts have increased in the Salt Lake area, with other problems in Manoa, including drug paraphernalia and activity. The CAR Program is now up to the officers to know their neighbors and who they work for in the community. CARS, is a nation - wide program and Kurashige suggested that everyone in the community get to know their patrolling officers. It was reported that five ukuleles were taken from Nuuanu Elementary School and to date have not been returned. The principal has an all point look t for them, and if found please return them to the school.

The gavel was returned to Chair Kurashige.

HONOLULU POLICE DEPARTMENT DISTRICT-1 - Board member June Ikeda informed the Board that no one from District 1 would be at the Board meeting with a report. The statistics for the month of February compared with January 2001 - 0/0 robberies, 14/9 burglaries, 3/8 unauthorized entry into motor vehicles, 5/6 auto thefts, 1/1 aggravated assault, 5/2 simple assaults, 35/23 motor vehicle collisions, 1/0 D.U.I., 3/3 graffiti, 2/3 family offenses and 0/0 drug offenses.

Board member Ikeda was thanked for the report.

Questions, answers and comments: In response to the crime statistics, these are actual crimes that happened in the area, but not necessarily from people living in the community.

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DISTRICT 5 - (Kalihi/Nu'uauu) Sgt. Costa reported the statistics for February 2001 compared to January 2001 - 21/21 burglaries, 9/16 auto thefts, 10/5 assaults, 2/3 sex offenses, 97/69 motor vehicle collisions, 7/11 D.U.I., 15 property damage, 1/2 graffiti, 3/9 family offenses, 27/19 domestics.

Sgt. Costa was thanked for his report.

NEW BUSINESS

PARTNERS IN HAWAII - Col. Gary Triche, representing Admiral Blair, reported: the military and the Superintendent of the Department of Education (DOE) have formed a Joint Venture Education Forum. The forum meets monthly to discuss educational issues within Hawaii's public school system. Since the forum's formation last year, they have developed a list of priorities. The forum will provide the military community and the DOE with mutually beneficial results in years to come. Also, these benefits will help with the overall "Quality of Life" standards in education for all students in Hawaii. Other long-standing partnerships between the military and local community include the Army's Military Assistance to Safety and Traffic (MAST). The Army provides a helicopter and medical team that can respond to anywhere on O'ahu in 10 minutes. They're on alert 24-hours a day and transport patients at no cost to the civilian community. Since 1974, MAST responded nearly 7,000 times and airlifted more than 6,000 patients. The Army also works closely with HFD to control brush fires. Being a good neighbor, military volunteers and their families are involved in many other aspects of local community life, too. All the services actively support the Adopt - a - School Program in 100 different schools. The military contributes about \$640 million, nearly 20 percent of the total State tax revenue. On behalf of Admiral Blair, Commander - in - Chief, U.S. Pacific Command, and nearly 43,000 military personnel stationed in Hawaii and their 65,000 family members, he thanked the Board for this opportunity. Upcoming military events at Hickam Air Force Base: A) March 30 weekend will hold the Hickam Carnival. B) The Air Force Thunderbirds Air Show will be held on October 27, 2001. Both events are opened to the public.

COMMUNITY CONCERNS: The Board was asked if an answer to the letter written to Kaumakapili Church has been received, none has.

UNFINISHED BUSINESS

Kalawahine 180 Reservoir Project Information - Scott Muraoka, from the Board of Water Supply, gave a summary about the project. Plans for a 2-million-gallon water reservoir, 21 feet in height, and 130 feet in diameter, is to be built in the Kalawahine community as a reserve tank. The chosen site off Kapahu Street and around Halelea Street was due to the elevation of the land being perfect for the reservoir and meets storage requirements. Of the original 6 acres, 4.5 acres were returned to the state for Department of Hawaiian Homelands (DHHL) to build homes.

Questions, answers and comments followed: In response to a question, Muraoka informed the Board and guests that the reservoir design is stronger than others in the area. As a reserve reservoir, the water will not be servicing this community. Also, a total of five new reservoirs are in the planning stages for different areas on O'ahu. On February 22, 2001 a letter was sent to the Board of Water Supply from the Papakolea Community Association. The Papakolea Association (PCA) was told that BWS has alternate sites for the reservoir. There were houses at Kalawahine that were bulldozed in 1952, and the families had to move. Two homes are still there. DHHL is with BWS in their request. Eighty-seven families have homes at Kalawahine; 85 have moved in. On April 5, 2001 Thursday, the PCA will hold a meeting at 7 p.m., and Richards will attend on the Board's behalf, as well as being a member of PCA. Richards will report back to the Board at our April meeting.

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Comments: Several community members spoke in opposition to this project.

1. Why was the community never told about the reservoir, and that they were under the impression that a well or pumping station was to be built?
2. A park or recreation center is needed in the area for the children, and this property could be used for that. The children have no place to play except on the streets and the community fears for their safety.
3. One of the main concerns was the barbed wire that will be put on top of the reservoir. Again, children might climb to the top and be injured.
4. Other comments were regarding the property's being available for 50 years without anything being done to it. DHHL turned over the property to BWS in 1952.
5. The community stated that they would like to have a meeting with Mr. Clifford Jamile, Manager and Chief Engineer of the Board of Water Supply.
6. Questions came up regarding the division line for Nuuanu Neighborhood Board No. 12 and Makiki Neighborhood Board No. 10. The Papakolea Community wanted to know to which Board their community is for their community. The Neighborhood Assistant will follow-up with the information at the April meeting.

The agenda was resumed in order.

BOARD OF WATER SUPPLY – Iris Oda reported the following: 1) Two main breaks reported for February. An eight-inch at the easement back of Puiwa Road, and a six-inch main at 225 Kapiwai Way. 2) Water projects in the district - Pacific Heights 578 Pumping Station landscaping and irrigation improvements, Nuuanu, 822' System Improvements, along Pali Road from Nuuanu Upper Aerator to Paris Place.

Questions, answers and comments: Water information for condos/apartments – There is no specific program targeting condo/apartment to have individual water meters, but our Community Relations Office building managers/property management companies can call 527-6124 to request water conservation "packets" or to have someone speak to the association about water conservation. Other existing means are through the neighborhood board meetings, television, radio, newspaper advertisements.

DEPARTMENT OF PARKS AND RECREATION – No report

MAYOR'S REPRESENTATIVE – Prior to the start of the meeting, Rae Loui, representing Mayor Harris, distributed the Mayor's State of the City Address, but was not present at this time.

CITY COUNCIL CHAIR JON YOSHIMURA – Chris Ovitt, representing Chair Jon Yoshimura distributed a report and highlighted the following: 1) Tuesday, April 3 at 6:30 p.m., Beretania Park Recreation Center, a community meeting on Aala Park. This meeting is to inform the community of their plans prior to the grand opening. 2) Orvitt stated that their office is willing to work with the Board of Water Supply, and Kalawahine group regarding the reservoir.

Orvitt was thanked for his report.

UNFINISHED BUSINESS

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Marks Estate – Chair Kurashige informed the Board that the hanging vines on the Estate are uncontrollable and there is an increase of rats. Art Mori, of Senator Tam's office, stated that they have a written report on the Estate.

Visioning Team – No report.

Luria moved and **Kilousky** seconded that the meeting be extended 20 minutes. The motion carried unanimously.

San Antonio/Concordia Street Project/Concern Update – This item remain on the agenda.

Kapena Falls Project Update – Spencer informed the Board that there was to have been another meeting.

2001 Legislative Committee – There were no volunteers for the committee. To be discussed at the April Board Meeting.

Auwai in Nuuanu Valley – No report

Oahu Metropolitan Planning Organization Citizens Advisory Council (OMPO) – A new Board member is needed to represent the Board on OMPO. Luria is interested and possibly can make a commitment in April.

OLD BUSINESS

Closure of Bus Shelter/Bus Stop at Pali Highway - No report.

ELECTED OFFICIALS

Governor's Representative – No representative was present.

Senator Rod Tam – Art Mori, representing Senator Tam, distributed a report and highlighted the following: The gate at the Pali Lookout has not been repaired yet and is tied up nightly by the patrolling police officers. Mori will follow-up on this matter. Mori informed the Board that Senator Tam opposes the construction of the Board of Water Supply's 180 Reservoir.

Discussion followed: Spencer suggested that the Department of Natural Land and Resources be contacted regarding the problem at the Pali Lookout.

Representative Suzanne Chun Oakland – The Senator was not present, a representative passed out a packet of materials to each Board member.

Representative Sylvia J. Luke – The Representative was not present, although newsletters were given to Board members.

Representative Lei Ahu Isa – No representative was present.

ANNOUNCEMENTS – None

ADJOURNMENT – Spencer moved, Richard seconded that the meeting be adjourned. Without objection Chair Kurashige adjourned the meeting at 9:53 p.m.

Submitted by,

Nola Frank
Neighborhood Assistant