Honolulu Harbor Domestic Commercial Fishing Village

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

RECEIVED
'98 JUN 10 P1:26
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

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

IN REPLY REFER TO:
HAR-ED
4278.98

June 9, 1998

TO: MR. GARY GILL, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPARTMENT OF HEALTH

FROM: KAZU HAYASHIDA
DIRECTOR OF TRANSPORTATION

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT FOR THE DOMESTIC COMMERCIAL FISHING VILLAGE, PIERS 36-38, HONOLULU HARBOR OAHU - JOB H.C. 1972/H.C. 1983

In accordance with ACT 241, SLH 1992, we have completed the formal Draft Environmental Assessment 30-day review period. We have received comments and questions regarding the draft EA from interested parties including OEQC, and have provided the proper responses and revisions to the final assessment. In doing so, we have determined that this project will not have a significant environmental effect, and are thus filing a Finding of No Significant Impact (FONSI). Please publish this notice in the June 23, 1998 OEQC Bulletin.

Enclosed are the original and four (4) copies of the FONSI and a completed OEQC Bulletin Publication Form.

Should you have any questions, please have your staff contact Fred Pascua of our Harbors Division at 587-1958.

Enc. - Project Description (Disk- Files 1972sum.wpd - WP 6.0, please return)

c: Shigemura, Lau, Sakanashi, Higuchi, and Associates

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1998-06-23-OA-FEA-Honolulu Harbor Domestic Commercial Fishing Village

Final Environmental Assessment for the Proposed Domestic Commercial Fishing Village at Piers 36-38, Honolulu Harbor, Oahu Job H.C. 1972/H.C. 1983

Prepared for:

State of Hawaii
Department of Transportation, Harbors Division

Prepared by:

Belt Collins Hawaii
680 Ala Moana Blvd., First Floor
Honolulu, Hawaii 96813-5406

June 1998

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FINAL ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED DOMESTIC COMMERCIAL FISHING VILLAGE AT PIERS 36-38, HONOLULU HARBOR, OAHU JOB H.C. 1972/H.C. 1983

Prepared for:

State of Hawaii
Department of Transportation, Harbors Division

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JUNE 1998

SUMMARY PROFILE

Proposing Agency	:	State of Hawaii Department of Transportation Harbors Division
Accepting Authority	:	State of Hawaii Department of Transportation
Contact Person	:	Mr. Fred Pascua State of Hawaii Department of Transportation Harbors Division 79 So. Nimitz Highway Honolulu, Hawaii Ph. (808) 587-1950 Fax: (808) 587-1864
Location	:	Honolulu Harbor
Tax Map Key	:	1-5-42:001, 002, 004-014; 1-5-34:003, 005, 011, (013, 014, 019, 021), 015, 018, 029
Land Area	:	16.5 acres
Landowner	:	State of Hawaii
Existing Uses	:	Vacant; warehouse/equipment buildings
Proposed Uses		Development of a new Piers 36-38 domestic commercial Fishing Village to include dredging, site improvements, construction of a new pier apron, pier improvements, multi-user building, warehouses, and lease of lots to fishing industry companies for individual tenant development.
State Land Use Classification Development Plan (DP)	:	Urban and Conservation
Designation, Land Use Map	:	Public/Quasi-Public
Public Facilities Map	:	none
City and County of Honolulu Zoning	:	I-3 Waterfront Industrial - marina accessory

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ABBREVIATIONS AND ACRONYMS

AAQS	Ambient Air Quality Standards
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
BMPs	Best Management Practices
BTEX	benzene, toluene, ethylbenzene, and xylene
BWS	Board of Water Supply
CFR	Code of Federal Regulations
CMU	concrete masonry unit
CWA	Clean Water Act
CY	*cubic yards*
CZM	Coastal Zone Management
dBA	decibels (average weighted)
DBEDT	Department of Business Economic Development and Tourism
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DOT	Department of Transportation
DPs	Development Plans
DWWM	Department of Wastewater Management
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FL	fill land
FWS	Fish & Wildlife Service
HACCP	Hazard Analysis Critical Control Point Program
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HECO	Hawaiian Electric Company
HiOSH	Hawaii Occupational Safety and Health
HRS	Hawaii Revised Statutes
HTC	Hawaiian Telephone Company
ICBO	International Conference of Building Officials
IES	Illumination Engineers Society
Ldn	day-night average sound level
MBTA	Migratory Bird Treaty Act
mg/l	milligrams per liter
MHHW	mean higher high watr
MLLW	mean lower low water
MPRSA	Marine Protection, Research and Sanctuaries Act
MSL	mean sea level
NAGPRA	Native American Graves Protection and Repatriation Act
NMFS	National Marine Fisheries Service
NOI	Notice of Intent

NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
ODMDS	Ocean Dredged Material Disposal Site
OSHA	Occupational Safety and Health Administration
OSWM	Office of Solid Waste Management
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PM-10	particulate matter less than 10 microns in diameter
PM-25	particulate matter less than 25 microns in diameter
psf	per square foot
RCRA	Resource Conservation and Recovery Act
RHA	Rivers and Harbors Act
sf	square foot, square feet
SHPD	State Historic Preservation Division
SMA	Special Management Area
SMF	Soil Management Facility
TCLP	Toxicity Characteristic Leaching Procedure
TGC	The Gas Company/Citizens Utilities Company
TRPH	total recoverable petroleum hydrocarbon
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
vtd	vehicle trips per day
WQC	Water Quality Certification

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1. CHAPTER ONE - PURPOSE AND NEED FOR PROPOSED ACTION (FISHING VILLAGE AT PIERS 36-38)

This Environmental Assessment (EA) complies with Chapter 343, Hawaii Revised Statutes, Environmental Impact Statements (EIS), and Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules. The State of Hawaii Department of Transportation (DOT), Harbors Division, is required to assess the significance of potential impacts of its proposed action under Chapter 343 HRS, as the proposed action is located on State of Hawaii (State) land. A portion of the project site is classified as Conservation District by the State Land Use Commission under Chapter 206 HRS, while other areas are classified as Urban District.

This chapter summarizes the proposed action, provides background information, describes the project location and surrounding uses, identifies several related studies, states the purpose and need for the action, and provides a summary of the alternatives considered and the potential impacts of the preferred alternative. Chapter Two describes the proposed action and reasonable alternatives which were considered to meet the purpose and need. Chapter Three gives an overview of the environmental setting, while Chapter Four evaluates potential impacts and proposes mitigation measures as needed. Chapter Five evaluates contextual issues such as the relationship of the project to government regulations. The notice of determination and findings are presented in Chapter Six. Parties consulted during preparation of the EA are listed in Chapter Seven. References are presented in Chapter Eight.

1.1 SUMMARY OF PROPOSED ACTION

The remainder of this chapter presents a general description of the technical, economic, social, and environmental characteristics of the proposed action.

DOT Harbors Division proposes to develop a domestic commercial Fishing Village at Piers 36-38 in Honolulu Harbor. Approximately $9.3 million of State funds will be required to dredge portions of the harbor for a berthing area, and construct a new concrete pier along Pier 38, structurally reinforce the Pier 37 finger pier, and construct a multi-user building, new roadways, utilities, and common areas on the 16.5-acre site. While current estimates indicate that actual costs may exceed the amount presently budgeted, deductive modifications are being considered to meet budgetary limitations.

The site will be divided into lots for 35-year leases to fishing industry tenants. Major tenants (those leasing whole lots) will be responsible for developing their own structures, based on specific architectural guidelines. The Fishing Village will consolidate Oahu's domestic commercial fishing fleet and many wholesaling operations, while showcasing the fishing industry as a unique visitor attraction.

BACKGROUND

It is projected that the value of direct revenue from Hawaii's commercial fishing and seafood market will total over $294 million in 1998.[1] Historically, seafood has been a desired product in Hawaii; Hawaii's consumers eat twice as much seafood as the U.S. per capita national average. Fish pricing is directly related to the limited supplies and high demand for island fish and buyers' willingness to pay a premium for higher grade products. Factors contributing to Hawaii's higher-quality seafood products are the sale of a large percentage of the island's seafood harvest at auction and the need for fresh fish to meet the demand of the *sashimi* (raw fish) market. Hawaii's consumption of raw tuna is second in the world only to Japan. High prices are paid only for top quality, well-handled tuna.[2]

A critical link between the commercial fishing fleet and the fish wholesalers on Oahu is the fish auction, operated by United Fishing Agency from their Kewalo Basin location. Fish auctions in Honolulu and Hilo are two of only four operations in the U.S. that allow inspection of the product prior to bidding. Wide daily and seasonal price fluctuations depend on the current fish supply and demand, and the buyers' assessment of product quality. Fish is delivered to the auction by trucks, which meet larger boats as early as 1:00 a.m. at piers scattered around the Harbor. The auction, operating six days per week, opens at approximately 5:00 a.m. (Figure 1-1). Commercial fishermen may also contract with buyers at set prices or sell their own catch individually. Hawaii's *State Data Book* for 1996 lists over 3,600 Hawaii commercial fishermen landing 32 million pounds of fish. Oahu's commercial fish landings represent approximately three-quarters of the State's fish catch.[3] Over 140 seafood marketing, processing, and wholesale companies operate on Oahu.[4] At present, they are concentrated at Kewalo Basin and Ward Fish Market.

Hawaii's commercial fishing industry represents a unique business activity and an important contributor to the State's economy. Despite its long history and its import function in supplying food to the resident and tourist markets, its importance is relatively unrecognized outside the industry.

The State of Hawaii's *Honolulu Waterfront Master Plan*, prepared in 1989, recognizes the growth of commercial fishing activities at Kewalo Basin and the need to provide additional berthing and support facilities to enable future growth. The plan outlines development of a local "Fishing Village," incorporating the fish auction with additional amenities (restaurants, retail sales) which will encourage increased public use of the waterfront.

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[1] State of Hawaii, Department of Business Economic Development and Tourism (DBEDT) (October 1995) *New Projections for Hawaii's Ocean Industries: A Strategic Orientation.*

[2] State of Hawaii, DBEDT Ocean Resources Branch, Hawaii Seafood Promotion Committee. (1998) *The Hawaii Seafood Buyer's Guide.*

[3] National Marine Fisheries Service (NMFS), Honolulu Laboratory (January 21, 1998) *Hawaii Fishery Summary.*

[4] State of Hawaii, DBEDT, Ocean Resources Branch (1994-1995) *Hawaii Marine Directory.*

Figure 1-1
FISH AUCTION

Final E A
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

In accordance with the *Honolulu Waterfront Master Plan*, the previous Pier 38 Master Plan and Environmental Assessment was prepared, recommending relocation of the University of Hawaii Marine Research Facility to Pier 38. The State of Hawaii, DBEDT issued a negative declaration for the project, determining that it would not cause significant adverse impacts to the environment. Subsequent State planning efforts concluded that Pier 38 would be better suited for the Fishing Village. The State is evaluating a new harbor location for the UH Marine Research Facility, currently located at Snug Harbor.

The *Oahu Commercial Harbors 2020 Master Plan*, an update to the *Honolulu Waterfront Master Plan*, recommends relocating the Fishing Village to Honolulu Harbor's Pier 36 in order to consolidate operations in an industrial setting. In discussions with DOT, prospective tenants voiced their support for this concept. Due to overwhelming interest from prospective tenants, DOT expanded the Fishing Village to include Piers 36, 37, and 38.The *2020 Master Plan* and the State propose to accomplish this relocation by: 1) improving and leasing Piers 36-38 for development of a commercial Fishing Village, 2) relocating the existing United Fishing Agency fish auction and wholesalers at Kewalo Basin to the new Fishing Village, 3) providing berths for larger fishing vessels at new finger piers at Piers 12-18 and at planned berths in Keehi Lagoon, and 4) providing berths for smaller fishing and recreational boats in Keehi Lagoon, and at Pier 60. The *2020 Master Plan* proposes to implement the project by generating lease revenues. Tenants will be responsible for financing and constructing their individual facilities.

Based on the waterfront and harbor master plans, as well as special funding and direction from the 1998 Legislature, the following EA of the proposed Fishing Village is provided to support the permits and approvals sought from the affected City and County, State, and Federal agencies.

1.2 RELEVANT DOCUMENTS

The following documents are related to this EA in that they deal with relevant aspects of the project site and harbor:

- Pier 38 Master Plan, Final Environmental Assessment (February 1994).
- Oahu Commercial Harbors 2020 Master Plan (May 1997).

1.3 PROJECT LOCATION AND EXISTING CONDITIONS

Piers 36-38 are located within the Iwilei/Kapalama subarea of the Honolulu Waterfront (Figures 1-2 and 1-3). The 16.5-acre site consists largely of previously developed vacant land and concrete wharves. Two buildings, a small warehouse, and adjacent shed are the only structures on site. Access from Nimitz Highway to the north is along a short paved road across from Alakawa Street (Figure 1-2).

Most of the project area is owned by the State of Hawaii and the entire project site is under the jurisdiction of DOT Harbors Division, which leases parcels to various harbor-related businesses. Fishing vessels berth at the piers, and several companies store heavy equipment, tractors, trailers, and fishing gear on site or in warehouses. In addition to the property already under State ownership, a 20,000-square-foot (sf) parcel in the center of the site is owned by Chevron and will be sold to the State. All other tenants are on revocable month-to-month permits, or storage charges.

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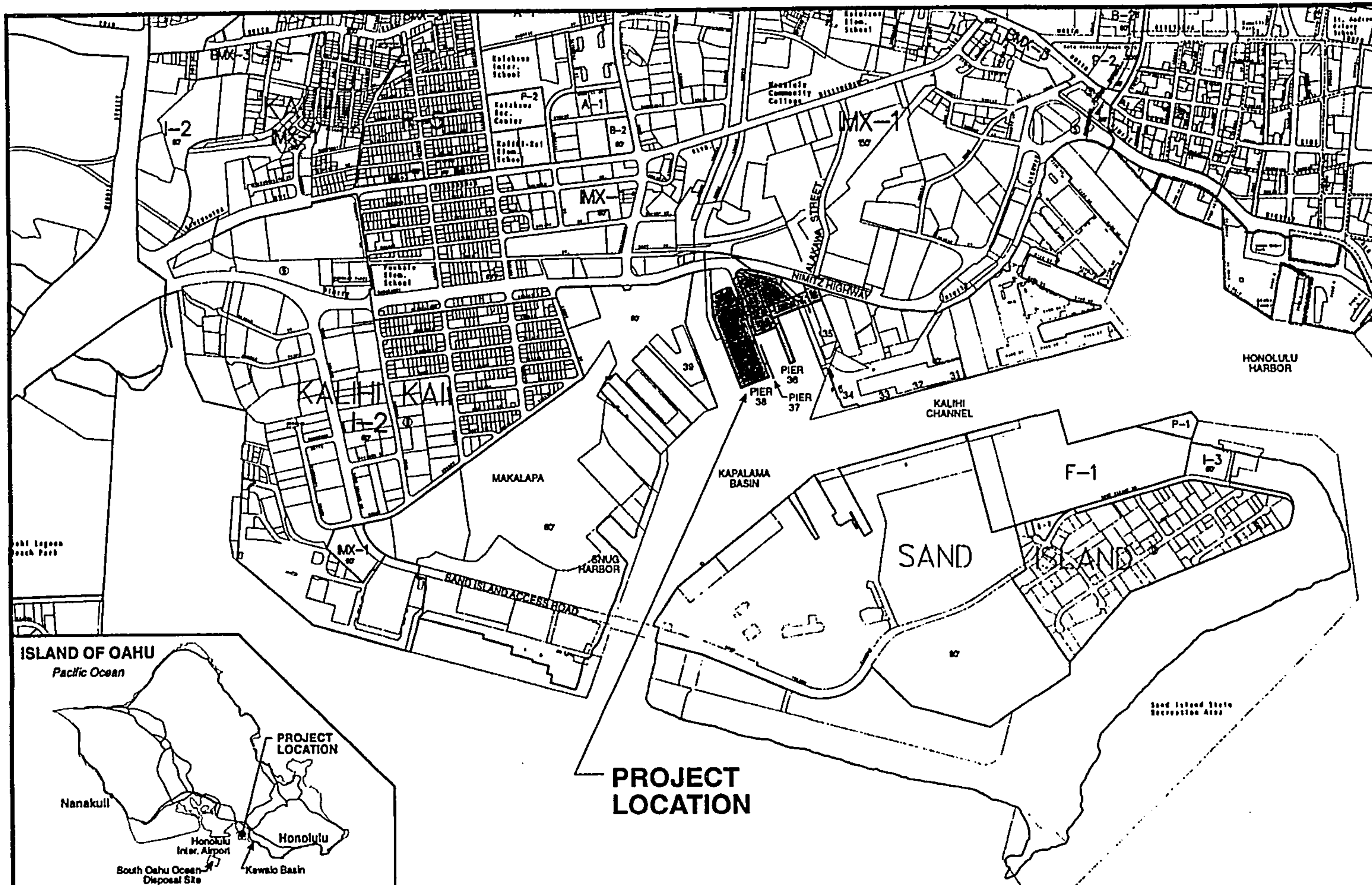

Figure 1-2
PROJECT LOCATION AND VICINITY MAP

Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

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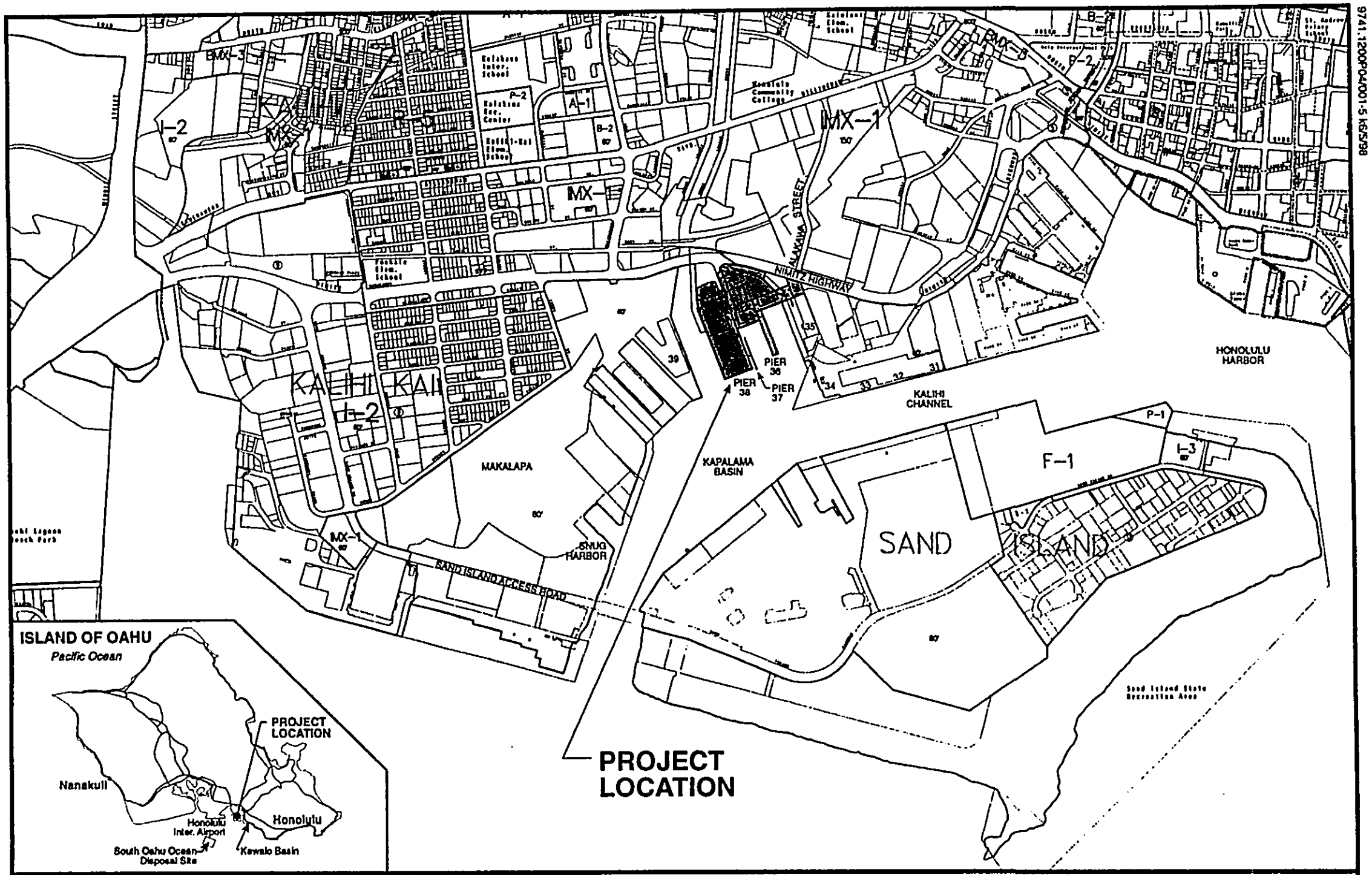

Figure 1-2
PROJECT LOCATION AND VICINITY MAP

Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

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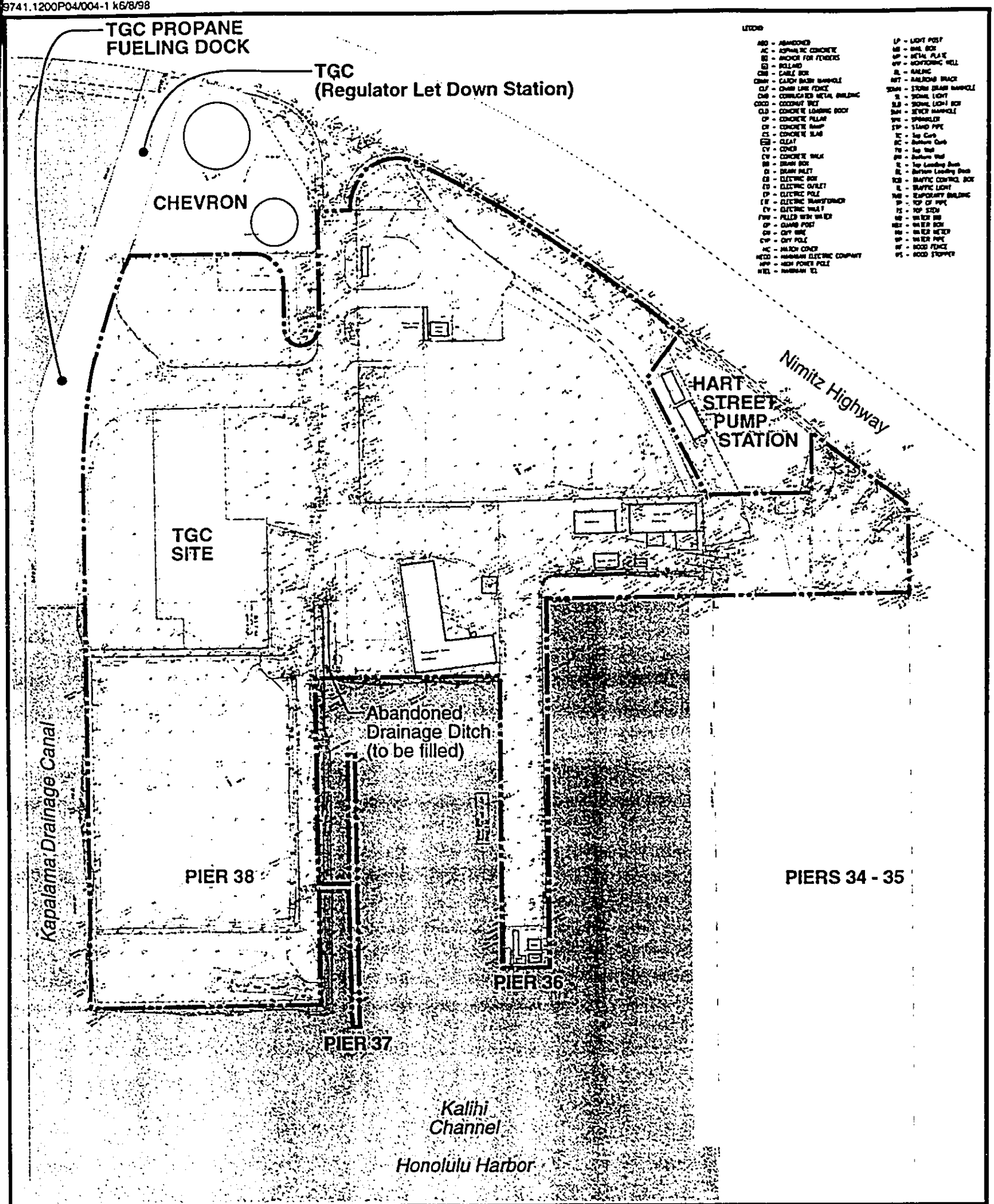

Source: Towill, Shigeoka & Associates (Feb.19, 1998)
Topographic Survey Piers 36 and 37.

Figure 1-3
EXISTING CONDITIONS

NORTH

0 50 100 200
SCALE IN FEET

LEGEND

Project Boundary

Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

Tenants currently on site include: P & R Water Taxi, Ltd., Polynesian Voyaging Society, Hawaii Sailing Center, Pacific Ocean Producers, Hawaii Transfer Company, Sea Spray Ltd. Liability Corp., Chevron USA Inc., and The Gas Company/Citizens Utilities Company (TGC). Former Chevron buildings and above-ground fuel storage tanks that occupied Pier 37 have been removed. The site has limited roadways and minimal utilities servicing Piers 36 and 37. The following paragraphs describe current conditions on the piers, which are illustrated in Figure 1-3.

Pier 36: A concrete pier over 400 feet in length accommodates a temporary corrugated aluminum structure for the offices of P & R Water Taxi, Ltd. and the Polynesian Voyaging Society. Hawaii Transfer Company operates a freight forwarding facility housed in a building on approximately 6 acres *mauka* of the pier. The land towards Nimitz Highway is mostly cleared and vacant.

Piers 37 and 38: The *makai* end of Pier 37, previously occupied by Chevron, has been cleared of four fuel tanks and pipelines. Environmental hazard assessment and remediation actions have been completed, as required by the Hawaii Department of Health (DOH).[5] The 2.9-acre area is currently fenced off and vacant. A sloping revetment protects the south and west waterfront edges of Piers 37 and 38. No improved concrete aprons or berthing sites exist.

At Pier 37, long-line fishing boats holding mooring agreements with DOT berth along the 400-foot concrete finger pier. The finger pier accommodates up to six vessels. A pedestrian catwalk links the pier to a dirt roadway along the edge of Pier 37.

TGC operates a propane air backup unit for its utility synthetic natural gas (SNG) distribution system and a liquid propane gas (LPG) terminal on 1.3 acres of the *mauka* end of Pier 38. Berthing facilities for TGC barges include a stub pier (Pier 38C) and a single mooring dolphin. In addition to the facilities already mentioned, TGC uses, maintains, and operates seven 30,000 gallon above-ground propane storage tanks, pipelines, and a temporary office trailer on the project site. The Kapalama regulator let down station operated by TGC is located just off the project site (west of the Chevron jet storage facility off Nimitz Highway).

The current tenants will relocate prior to construction. P & R Water Taxi has requested an extension to their lease and will remain onsite pending future development of Pier 36. Prior to returning their designated portions of the site to the State, Chevron and Hawaii Transfer Company will remove all equipment and structures, including Chevron's above-ground and underground pipelines within the project area, and will acquire all necessary DOH clearances.[6] All other State-owned structures will be demolished. Pending negotiations with the State, TGC will permanently relocate their facilities. TGC is cooperating with DOT Harbors Property Management to relocate barging and the majority of its propane storage at Pier 38 to Barbers Point. Both parties are working to identify an appropriate location to consolidate and relocate TGC's remaining essential operations. The location will most likely be closer to Nimitz Highway, away from public activities that will occur at the proposed Domestic Commercial Fishing Village. Relocation is anticipated within the next five years.

[5] DOT Harbors Division, Property Management, February, 1998.

[6] The State is purchasing the Chevron parcel. Chevron will relocate their existing pipelines.

1.4 SURROUNDING USES

Bordering uses include the Chevron property[7] to the north, the City and County's Hart Street wastewater pump station to the northeast, and harbor-related activities at Pier 35 to the east and at Piers 39-40 to the west. In addition, TGC's Kapalama regulator let down station is located just west of Chevron's jet fuel storage facility, adjacent to Nimitz Highway.

Chevron's two above-ground jet-fuel storage tanks are located directly off of Nimitz Highway. Chevron's long-range plans are to relocate the tanks to DOT Airport Division's proposed tank-farm facility at the ex-Kapalama Military Reservation. The City and County's Hart Street wastewater pump station occupies approximately 0.6 acres to the northeast on Nimitz Highway. The City plans to construct a redundant force main before upgrading and expanding the station to meet future wastewater requirements, and to phase in with the Sand Island Wastewater Treatment Plant expansion.

Young Brothers, Ltd. an interisland barge service, recently relocated to Piers 39-40, directly west of the project site. The Hawaii Stevedores, Inc. is headquartered in a large industrial building on Pier 35, along with general cargo storage, a marine electronic equipment business, and other harbor-related tenants. Sand Island Container Facilities are located across Kapalama Basin. *Mauka* and across Nimitz Highway from the main entry to the proposed project site are the Nimitz Business Center and the Xerox/GECC buildings. The Dole Cannery retail outlet center and industrial and warehousing uses are located along Alakawa Street.

1.5 PURPOSE AND NEED

The primary objective of developing the Piers 36-38 Fishing Village is to provide a central support facility for the local commercial fishing fleet and their associated customers, primarily wholesalers and the fish auction. Concurrent to this objective is the State's desire to provide a unique visitor attraction intended to provide greater visibility for Hawaii's commercial fishing industry as a resource for tourism. In addition to wholesaling seafood and related products, tenants will be encouraged to provide limited retail sales. Purchases could be delivered to buyers' hotels, or shipped overseas.

The need for the project is based on the following:

- Desire by the local fishing industry to upgrade their product and enhance their reputation for producing first-rate fresh fish. This will be accomplished through centralizing operations to minimize fish handling and transport.

- Need for the fish industry to meet the requirements of the U.S. Food and Drug Administration [FDA], Department of Health and Human Services. Hazard Analysis Critical Control Point Program (HACCP). The program requires that seafood processors upgrade their methods of temperature control, sanitation, transport, and record keeping by December 27, 1997. The State has advised the FDA that establishment of the Piers 36-38 Fishing Village, with upgraded facilities, is their preferred and most cost-effective resolution.

[7] Chevron rents this portion of the property month-to-month.

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CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

1.4 SURROUNDING USES

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[7] Chevron rents this portion of the property month-to-month.

As the deadline for compliance has passed, the FDA is aware that the State and local industries are working to achieve compliance through completion of the Fishing Village.

- Conversion of existing fishing industry facilities at Kewalo Basin and the Ward Fish Market to other uses. The State's waterfront and harbor master plans, as well as the Kakaako Community Development District Plans, recommend development of a commercial Fishing Village. Presently, fishing-industry tenants occupy properties at Kewalo Basin, under jurisdiction of the State's Hawaii Community Development Authority (HCDA), and at the privately-owned Ward Fish Market. As their leases expire, relocation will allow development of other high-priority waterfront and retail projects.

1.6 SUMMARY OF ALTERNATIVES

The various alternatives to the preferred alternative which have been considered include the following:

- no action (maintaining the site's current use of DOT revocable leasing to maritime and industrial tenants),
- other locations (other harbor and waterfront sites),
- site layout alternatives, and
- exclusion of tourism component.

Alternative sites for disposal of dredged material are also considered as part of the proposed action.

1.7 SUMMARY OF POTENTIAL IMPACTS

Potential issues of concern include increased site erosion and runoff which would potentially impact harbor water quality, runoff during operations which would impact water quality, disturbance to the historic Piers 36 and 37, exposure to existing hazardous materials onsite, and short-term traffic impacts during construction and dredging operations.

During construction, standard erosion and pollution prevention control measures (Best Management Practices) and compliance with NPDES permit conditions will prevent erosion and runoff impacts.

During operations, the on-site drainage system will incorporate switchable fox valves designed to shunt washdown water to the sanitary sewer system, thereby avoiding introduction of fish blood and other organic waste into harbor waters through runoff from the site.

Although Piers 36 and 37 are considered historic, the State Historic Preservation Division (SHPD) has concurred that they do not meet the criteria to qualify for listing on the National Register of Historic Places. Therefore, any alteration to the piers will not be considered significant.

All hazardous materials above-ground will be removed from the site prior to demolition and all buried pipelines will be removed or stabilized to prevent exposure and health risk to construction crews. A site-specific Health and Safety Plan will be implemented to protect dewatering and disposal crew from being exposed to contaminated sediments.

Impacts to traffic on Nimitz Highway (and other roadways) would include short-term construction-related impacts associated with movement of construction vehicles, and long-term impacts associated with tourism day-to-day business and activity at the project site. These potential impacts can be adequately mitigated through design and management measures, such as traffic signal timing and left-turn restrictions.

All potential impacts of concern can be adequately addressed through appropriate mitigation measures, and no significant impacts are expected to result from the proposed project.

2. CHAPTER TWO - DESCRIPTION OF THE PREFERRED ALTERNATIVE AND ALTERNATIVES CONSIDERED

2.1 PROPOSED FISHING VILLAGE

The overall concept for the Fishing Village, encompassing approximately 16.5 acres, is shown in Figures 2-1 and 2-2, and includes the following elements:

- Demolition of existing structures on site.
- Construction of a new pier apron at Pier 38, and dredging of the berthing area.
- Structurally upgrading the existing *makai* end of the finger wharf at Pier 37.
- Construction of a multi-user building (approximately 40,000 square feet [SF]) for lease to private seafood wholesalers.
- Construction of roadways, service areas, and parking facilities.
- Installation of exterior lighting, bollards, benches, trash receptacles, landscaping, and other amenities in common areas.
- Connection of utilities for water, wastewater, storm drains, electricity, and communications.

2.1.1 DEMOLITION

Hawaii Transfer Company will be responsible for demolition of their facilities on the project site. All other existing facilities will be demolished by the State. All unwanted items, such as drums, metal bollards, tires, and abandoned ships will be removed. The site will be cleared and graded.

2.1.2 PROPOSED FACILITIES

2.1.2.1 Pier Improvements

The State will construct a new pier apron to accommodate off-loading fishing boats. The 40 foot wide concrete pier will extend 323 feet along the *makai* end of Pier 38, wrapping an additional 200 feet along the *ewa* edge. The proposed pier plan and cross-section are illustrated in Figures 2-3a and 2-3b. The pier will accommodate up to five fishing boats (each approximately 90 ft long), three vessels along the *makai* side and two along the ewa side.

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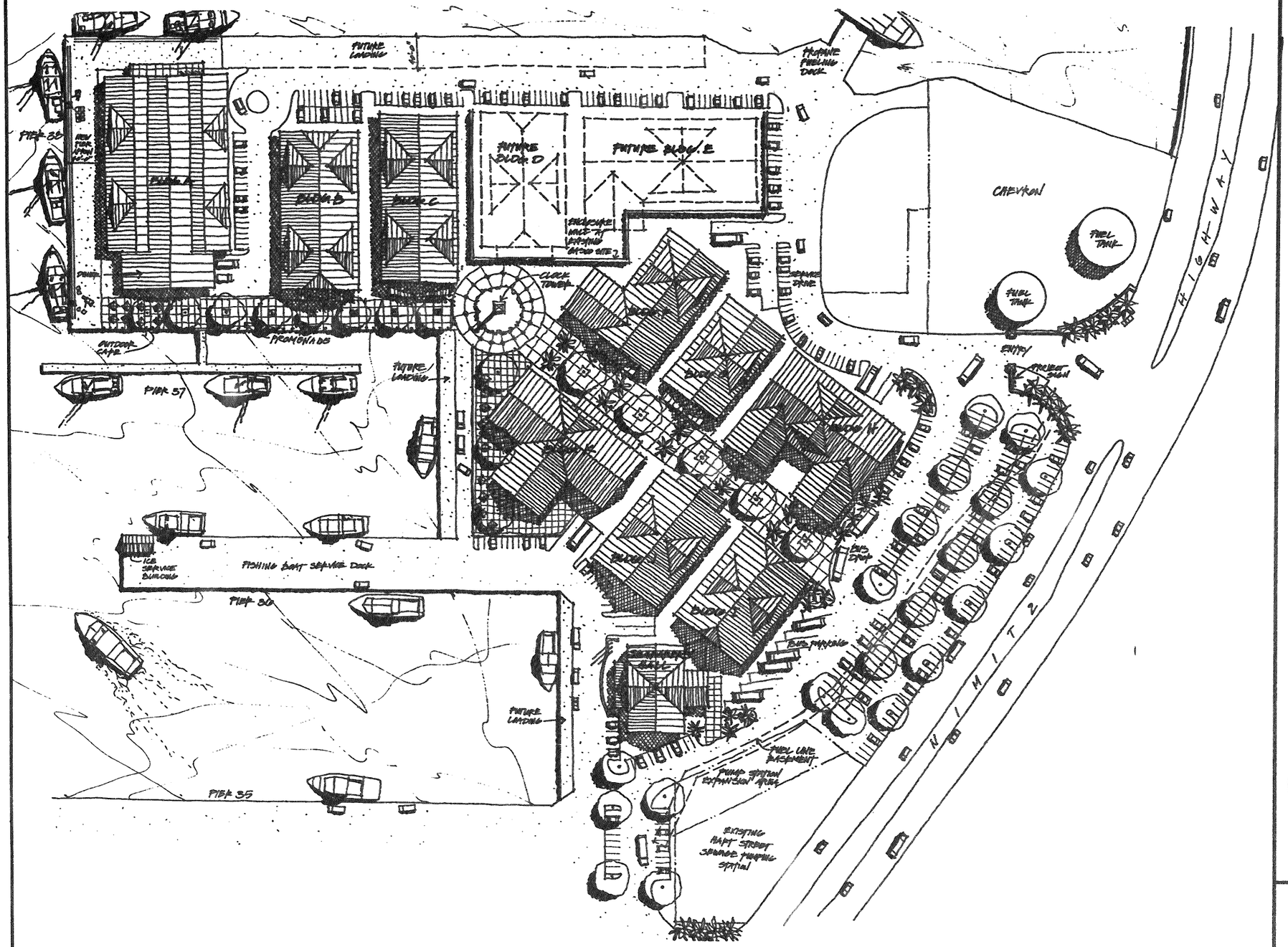


NORTH

0 50 100 200

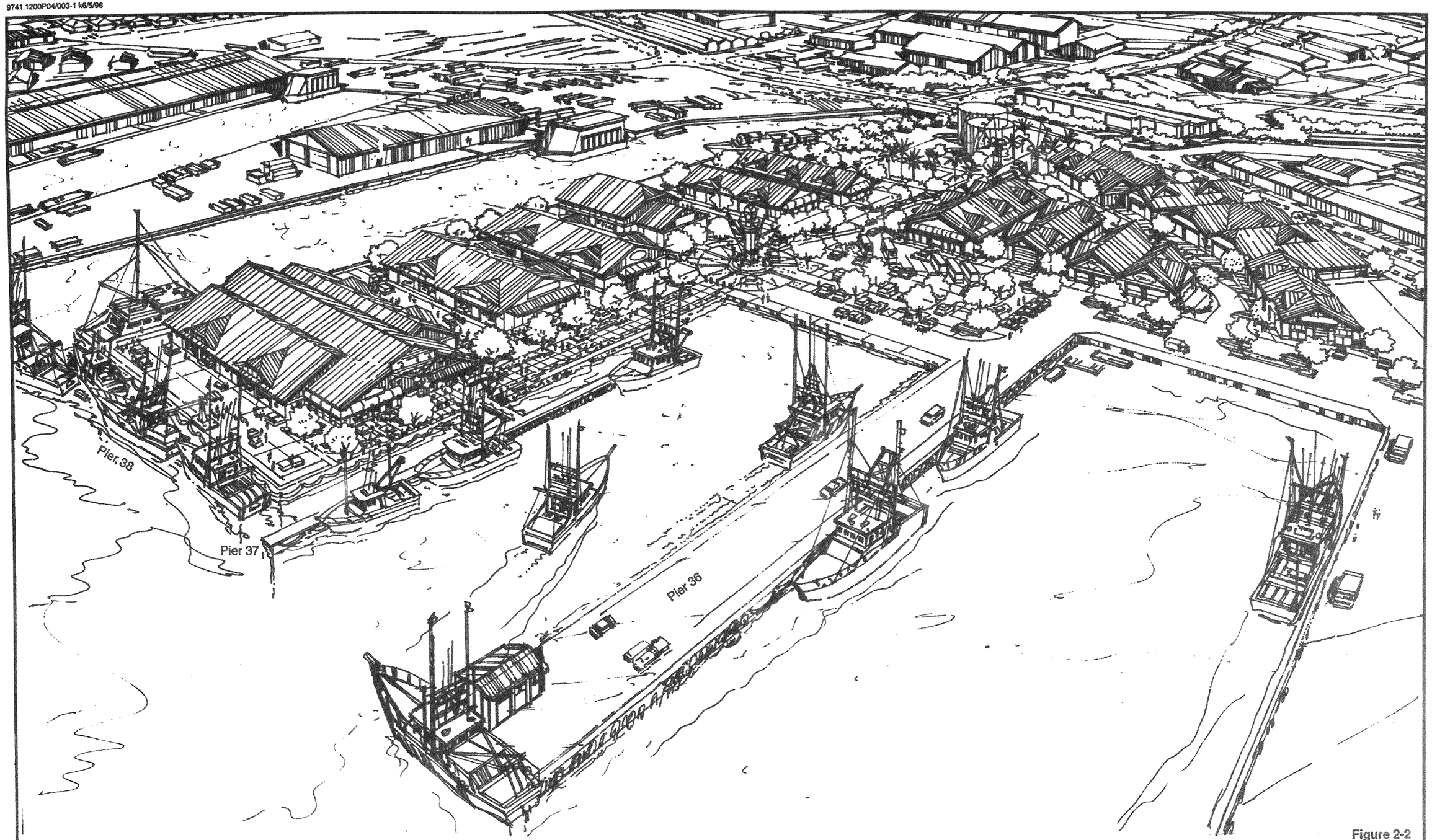
SCALE IN FEET

Source: Design Partners, Inc.

Figure 2-1
CONCEPTUAL SITE PLAN

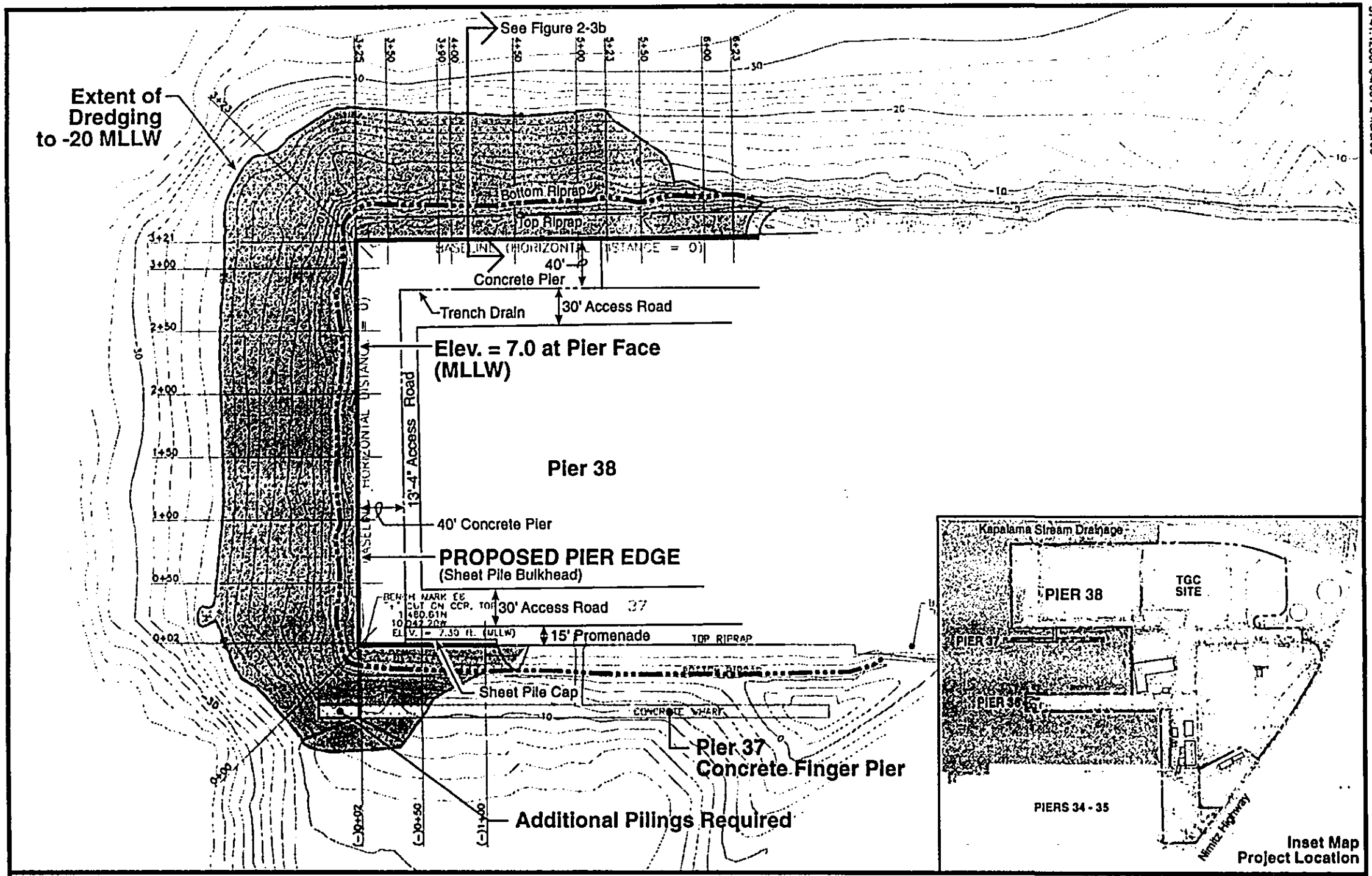
Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

9741.1200P04/003-1 k6/5/98



Source: Design Partners, Inc.

Figure 2-2
CONCEPTUAL AERIAL VIEW
Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998



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Source: Shigemura, Lau, Sakanashi, Higuchi & Associates Inc. (1998)

NORTH

0 30 60 120 240

SCALE IN FEET

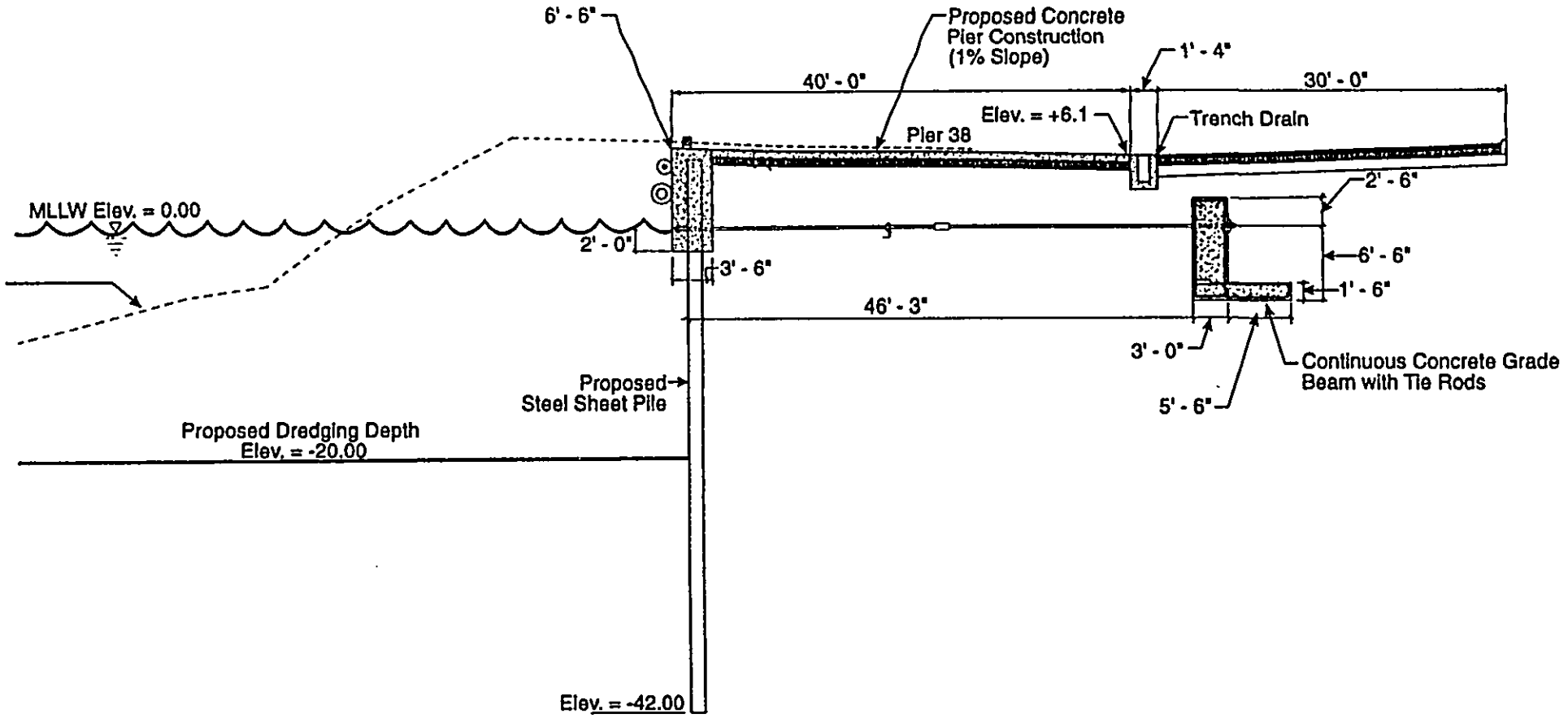
LEGEND

Dredge Area

Existing Shoreline

Figure 2-3a
PIER 38 CONSTRUCTION

Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998



Source: Shigemura, Lau, Sakanashi, Higuchi & Associates Inc. (1998)

0 4 8 16 32
SCALE IN FEET

Figure 2-3b
NORTH-SOUTH CROSS-SECTION
PIER 38 CONSTRUCTION
Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

The concrete pier apron will be supported on a steel sheetpile bulkhead capped with concrete that extends from the top of the sheets to a few feet below the waterline. The pier bulkhead will be secured by steel tie rods anchored to a continuous concrete grade beam at 0 feet mean lower low water level (MLLW). The pier apron, an eight-inch thick concrete slab-on-grade, will be supported by steel sheet piles driven to -42 feet MLLW.

Pier Bulkhead Structure

The proposed pier structure is in accordance with DOT Harbors Division's design and construction standard and is consistent with current harbor construction practices. The vulnerable portion for bulkhead corrosion is the area affected by tidal and wave fluctuations (splash zone). To deter corrosion, this area is shielded by a protective coating which will extend the life of the pier's structural components for approximately 20 years. Furthermore, a concrete cap is also included for the full length of the splash zone from the top of the sheet to a few feet below the waterline. Finally, the steel bulkhead section has been specified at an increased thickness to counteract a potential reduction in strength and life expectancy due to corrosion.

The pier will be designed to withstand lateral loads imposed by moored fishing boats, as well as a live load of 500 pounds per square foot (psf), and AASHTO[1] HS-20 loading, including impact. Pier crane rails will not be provided. It is assumed that the fishing vessels have on-board cranes for off-loading fish.

The harbor bottom alongside the pier will be dredged to a depth of -20 feet MLLW for clearance of deep-draft fishing vessels. The area to be dredged around Pier 38 is over 500 feet long by 100 to 120 feet wide. Dredging operations will likely be conducted with a barge-mounted crane equipped with a clamshell bucket. The duration of the dredging operations may be from 2 to 6 months. Approximately 30,998 cubic yards (CY) of dredged material will be removed. The majority of this dredged material will be disposed of at the South Oahu Ocean Dredged Material Disposal Site (ODMDS), an Environmental Protection Agency (EPA)-approved offshore dump site. Approximately 3,519 CY of contaminated spoils, removed from the *ewa* end of Pier 38, will first be dewatered at a temporary stockpile area on Pier 38. No effluent from the dredged materials will be allowed to return to State waters. Once sufficiently dry, the dredged materials will be transported to the Honolulu International Airport Reef Runway Soil Management Facility (SMF) under the jurisdiction of DOT Airports Division.

Modifications to the shoreline will include removal of the existing rock revetment and cutting back the shoreline an average of 20 feet. The new bulkhead will stabilize the shoreline. On-shore areas will be excavated and possibly dewatered for construction of the grade beam, tie rods, utilities, and building foundations. In order to prevent damage to the existing finger pier at Pier 37 that may occur due to adjacent dredging and construction at Pier 38, additional pilings will be added to shore up the *makai* end of Pier 37 (Figure 2-4).

A small, shallow man-made ditch (a former drainage ditch which is no longer functional) is located at Pier 37 (see Figure 1-3). This will be filled and paved over, to allow for public access onto Pier 38. It is estimated that approximately 50 CY of fill material will be required to fill the ditch to the

[1] American Association of State Highway and Transportation Officials.

[2] Personal Communication, Scott Sullivan (Sea Engineering), February 24, 1998.

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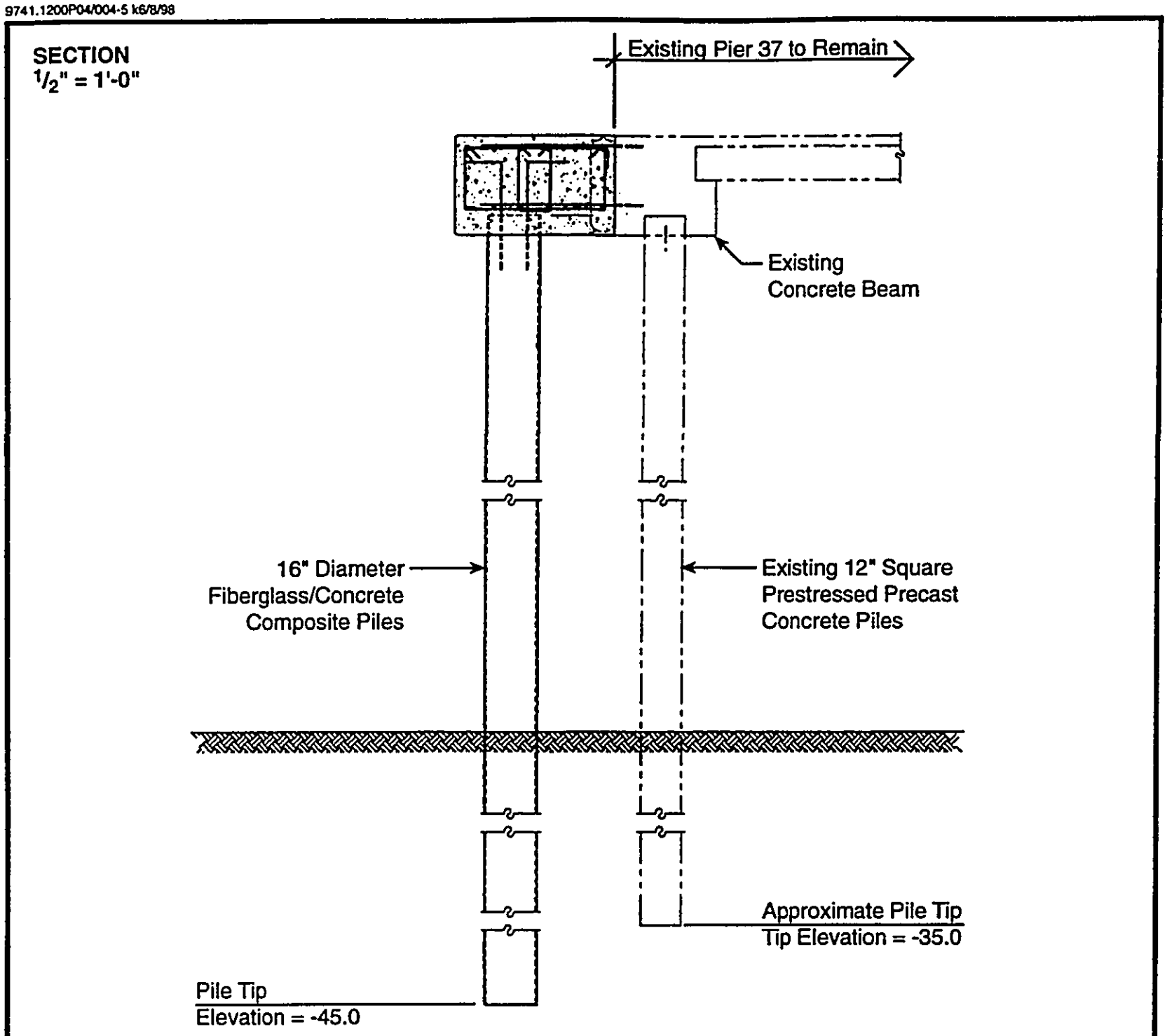

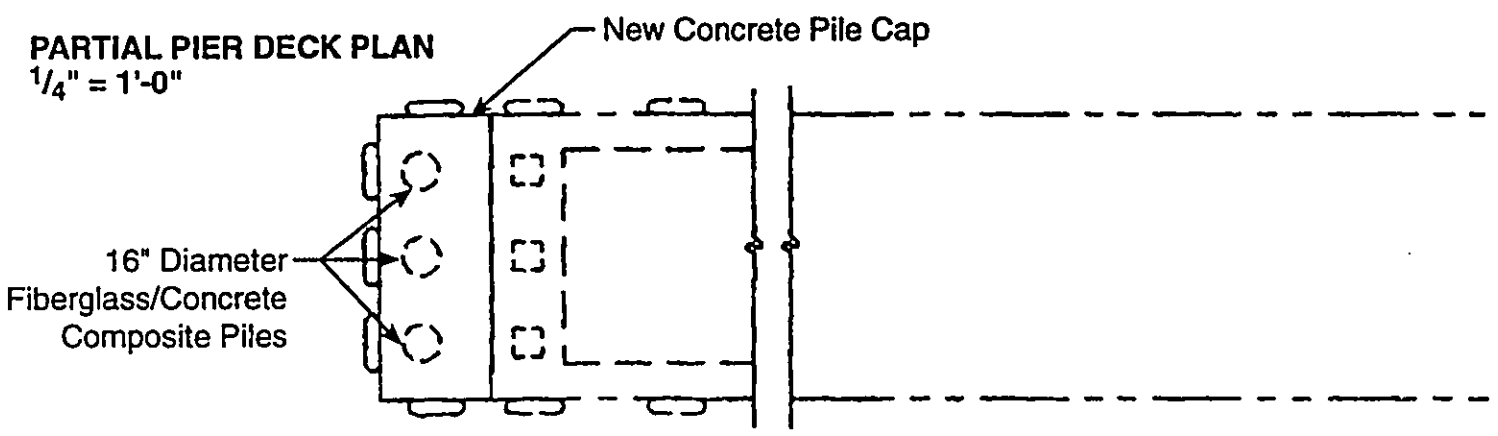

Figure 2-4
PIER 37 MAKAI END REINFORCEMENT

mean highwater line, and additional material as needed will be deposited to bring the area up to grade. Clean, inert coralline sand or gravel fill will be utilized for the filling of the ditch.

Buildings

As shown on Figure 2-5, the property will be divided into leasable lots for the construction of low-rise buildings on a landscaped campus (Figure 2-6). On Lot 4 (63,600 SF), the State will construct a multi-user building which will house independent wholesalers. DOT will undertake further detailed planning to determine the number of building tenants and interior configuration. The remaining lots will tentatively be utilized as follows:

Lot 1 (54,300 SF) – A warehouse will hold the fish auction and all functions presently housed in facilities at Kewalo Basin which must be vacated by December, 2000 in compliance with HCDA's Development Plan. The new warehouse will be located directly off the expanded Pier 38, minimizing seafood handling and transport from the berthed fishing vessels. Also proposed is a new seafood diner and outdoor cafe along the east side of Pier 38.

Lot 2 (28,400 SF) and Lot 3b (76,800 SF) – Tenants currently located at Kewalo Basin will develop new facilities at these lots and must be relocated by December, 2000 to comply with HCDA's plan.

Lot 3a (48,400 SF) – Located on the current TGC site, this lot will be available for future development.

Lot 4 (63,600 SF) – The State will construct a new multi-user building to lease to small seafood wholesalers.

Seafarer's Hall, adjacent to Pier 36 (not shown) – Considered for a future phase, the State may construct a personnel support facility to accommodate the crews of the fishing fleet when in port. This facility would provide toilet/locker/shower facilities, a convenience store, a recreation room/lounge, a telecommunications center, and a group rest area with beds.

2.1.3 OTHER ON-SITE IMPROVEMENTS

2.1.3.1 Service Areas

For safety as well as visual reasons, heavy-servicing operations for each building site will be maintained separate from pedestrian visitor circulation. The layout of the building lots and common areas create a "front" (visitor) and "back" (service) face to each building, with the service faces adjoining the service route and loading areas. Future loading dock aprons are planned at Piers 36 and 37.

An ice house is proposed as a service improvement to be located at the *makai* end of Pier 36. No permanent fueling facility would be constructed; a fuel truck would be used for vessel refueling. No underground lines or fuel tanks would be constructed. Vessel repair and maintenance would be on-board only.

0000 00 18 2046

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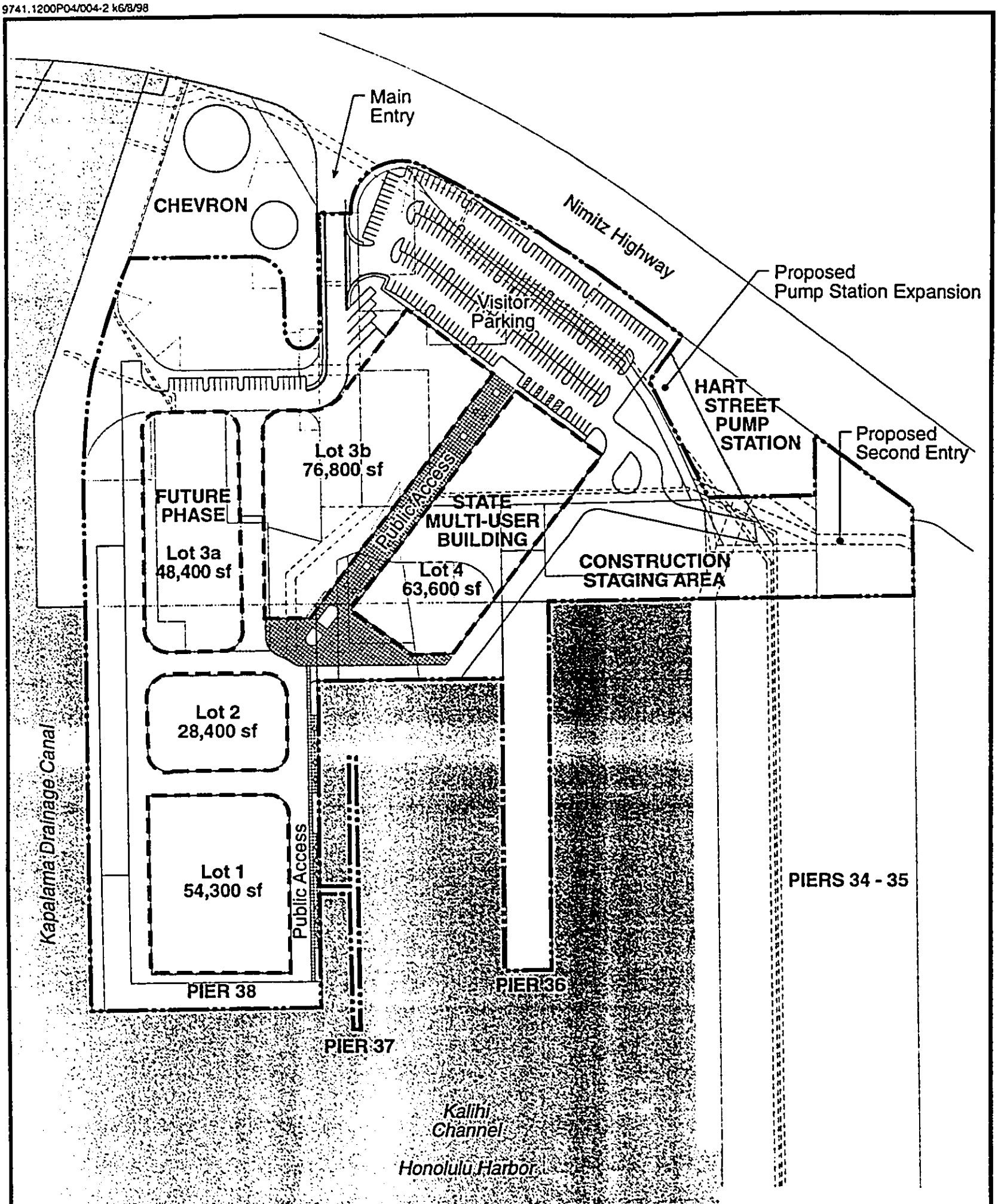


LEGEND

Project Boundary

Lot Lines

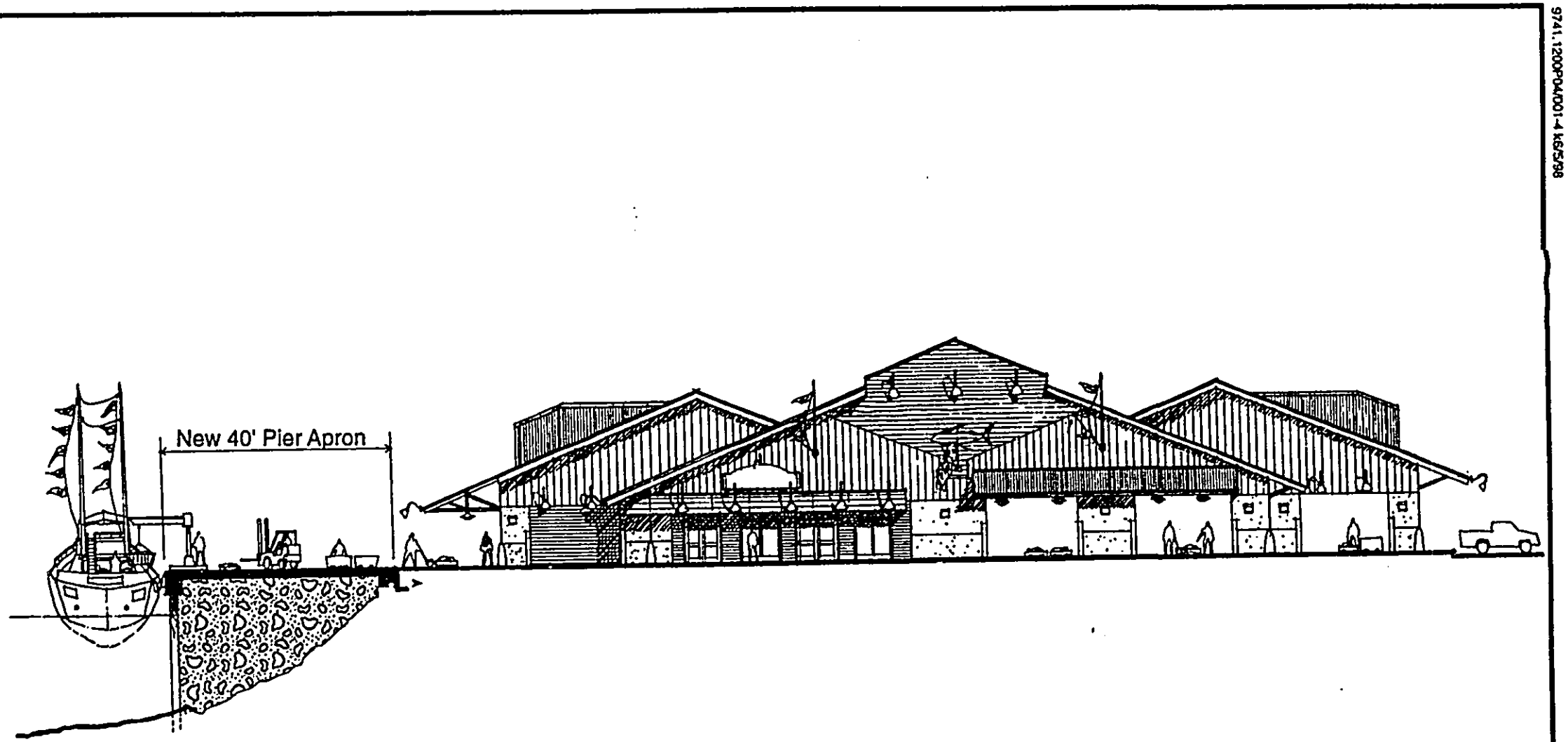
NORTH

0 50 100 200

SCALE IN FEET

Figure 2-5
PROPOSED LEASABLE AREAS

Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998



9741.1200P04/001-4 k6/5/98

Source: Design Partners, Inc.

Figure 2-6
FISHING VILLAGE -
DIAMOND HEAD ELEVATION
Final EA
Piers 36-38 Fishing Village
Prepared by Belt Collins Hawaii • June 1998

2.1.3.2 Public Areas

The design concept is that of a working "Fishing Village," where a complete range of seafood handling and port operations can be experienced by visitors. From a distance, visitors will be able to watch the unloading of commercial fishing boats at Pier 38, and servicing and maintenance of the fleet at Piers 36 and 37. They will be able to view the early morning fish auction, see various types of fish brought in for sale, and view trimming and finishing of large fish in the cutting room.

The State will provide common public areas including a central Pier Row: a paved and landscaped mall, a raised harbor view terrace at the base of Pier 37, and a pedestrian promenade. The promenade will run along the length of Pier 37, terminating at the new Pier 38 apron. In the future, the State also proposes to build a clock tower and plaza along the public circulation path. A uniform project character will be assured as the State will provide common-area lamp posts, bollards and chain barriers, benches, and trash receptacles. For individually-developed buildings, tenants will be required to adhere to architectural design guidelines being developed. All common areas will be wheelchair-accessible, in compliance with the Americans with Disabilities Act (ADA). Tenant servicing operations will be separated from the public areas. Except for small vehicles making fish deliveries onsite, and emergency vehicles, all vehicular traffic will be restricted from public pedestrian areas.

2.1.3.3 Utilities and Roadways

The State will provide the following utility and site improvements:

Roadways and Parking. Over one-half mile of paved roadway will be added within the project site. The main entry road from Nimitz Highway will be improved, widened, and landscaped to include entry signage and lighting. A second entry road from Nimitz Highway will be added east of the existing Hart Street Pump Station, following completion of its expansion, estimated at year 2003. A paved, landscaped, public parking area will be constructed adjacent to Nimitz Highway. The parking lot will hold approximately 262 visitor cars and several (2—4) buses. Additional tenant employee parking, loading, and service areas will be provided adjacent to each building.

Water and Fire Suppression. New water mains and fire hydrants within the project site will connect to the existing 12" water main within the Pier 36 access roadway from Nimitz Highway. A water lateral will be provided for each lease lot. The proposed water system will be owned and maintained by DOT Harbors.

DOT will obtain a water allocation for this project. The project must also obtain a letter from the BWS regarding the adequacy of the existing water system.

A National Pollutant Discharge Elimination System (NPDES) permit may be required for hydrotesting and disposal of chlorinated water.

Sewer. New sewer lines are planned to connect to the Department of Wastewater Management (DWWM) Sewer System. A sewer lateral will be provided for each lease lot. Each tenant will be responsible for pre-treating wastewater before it goes to the sewer lateral. Wash water from Pier 38 will be collected in trench drains and directed to the sewer system. The sewer system will be

owned and maintained by DOT Harbors. The project must obtain sewer connection approval from DWWM. A NPDES permit may be required for dewatering of the sewer trenches.

Drainage. The proposed drainage system will collect surface runoff for eventual discharge into both the Kapalama Stream Drainage and Honolulu Harbor. Runoff will be collected in trench drains. An automatic "fox valve" diversion system will be used to separate pollutants (from the washdown area) and keep them from entering the stormwater systems and waterways.

During use of hose-down equipment, which is attached to the water supply downstream of the demand valve, water is forced down the drive line, pressurizing it and opening the diversion valve. Polluted washdown water goes directly to the sanitary sewer system. When the washdown finishes, the drive line water is expelled through the in-line delay jet. The drive line is no longer pressurized and the diversion valve closes. Storm water runoff is then directed toward the drainage system.

An NPDES Permit for stormwater discharge associated with construction activity will be required. An NPDES Permit may also be required for the dewatering of the drain trenches.

Solid Waste Disposal. Each lessee will be responsible for suitable handling of their own solid waste for removal by a private contractor. A common trash pick-up area will be designated.

Electric. An underground electric duct system will be provided on the site for Hawaiian Electric company (HECO) electric service lines to each lot in the site development. A portion of the overhead system will be retained for maintaining electric service to Chevron and TGC. HECO will remove all overhead electric lines, transformers and poles on the site except for those that serve Chevron and TGC. The underground duct system will provide access for HECO to the poles retained for Chevron and TGC.

An existing pad-mounted transformer for Pier 37 will be removed along with the electrical equipment next to it. Existing lighting and power outlets for the pier will be served by a new pad-mounted transformer at the proposed comfort station. In addition to the comfort station, pier lights and power outlets, the new transformer will serve the new site area lighting.

Lighting. Site area lighting will be for the roadways, parking areas and pedestrian malls. Lighting will be provided by luminaires mounted on metal poles. The pole heights and lamp wattages will be determined by the luminaire type and the illumination levels recommended by the Illumination Engineering Society (IES) for the various areas.

Communications. An on-site underground telephone duct system will be provided for GTE Hawaiian Telephone Company (HTC) service lines to each lot in the site development. A portion of the overhead system will be retained for maintaining telephone service to TGC. HTC will remove all overhead telephone service lines except for those that serve Chevron and TGC.

An on-site underground cable television duct system will be provided for Oceanic Cable service lines to each lot in the site development.

2.1.4 OFF-SITE IMPROVEMENTS

No off-site improvements, other than harbor dredging around Pier 38, will be required as part of the proposed project.

2.1.5 PROJECT COST

Preliminary development costs budgeted for the Fishing Village by the State are $6 million. The scope of work for this development includes: site work, dredging, pier improvements, roadways, parking, utility connections and common areas. Current estimates indicate higher costs for this development, and design modifications are being considered to meet the amount budgeted. An additional $3.3 million would be required to construct the State's multi-user building. DOT is awaiting final allocation of $3.3 million for the project. Based on the approved funding amount and further costing during final design, the extent of facilities to be developed will be determined. Alternatives to the proposed project, including a reduced scale project, are presented in Section 2.2. Costs to tenants for developing each facility have not been estimated and will be based on their specific needs.

2.1.6 TIMING/PHASING

The project will be developed in several phases:

- Phase 1: dredging, addition of 500-foot apron at Pier 38, improvements to Pier 37 finger pier, filling and paving over a drainageway at Pier 37, roadways, parking, utilities, common area amenities, comfort station and construction of four buildings: the State's multi-user building at Lot 4, and buildings at Lots 1, 2, and 3b (see Figure 2-4).

- Phase 2: second road entry to Nimitz Highway and additional parking, upon completion of the Hart Street Pump Station upgrade.

- Future Phases: ice house at Pier 36, further development of Lot 3a, Seafarer's Hall, clock tower.

The construction schedule is expected to be as follows:

October 1998 – October 1999:	Dredging and pier construction
December 1998 – September 1999:	Construction of land-based improvements
Mid-1999 – 2001:	Construction of buildings
At completion of Hart St. Pump Station Improvements (estimated for 2003) :	Construction of second roadway entrance

2.1.7 EMPLOYMENT AND VISITOR ESTIMATES

The following employment and visitor estimates and operational considerations formed the basis for the evaluations discussed in this EA:

Staff. Approximately 100 to 200 full-time employees would staff the project. Employees would be hired by individual tenants to manage, operate, and maintain the businesses associated with the Fishing Village. Hiring would coincide with the phased project development. This employment

estimate is based on a DOT survey of seven prospective tenants indicating an estimated employee count of 117.[3]

Visitors. Residents and tourists will visit the Fishing Village, which will be promoted as a unique group tour attraction highlighting Hawaii's commercial fishing industry. Retail sales of seafood products to visitors are expected to account for about five percent of total Fishing Village revenues. A seafood cafe will operate during early morning and lunch hours. The primary target visitor group is expected to be eastbound visitors, specifically from Japan. The Fishing Village will be most active in the early morning hours, filling a gap for small group tours between morning overseas flight arrivals and hotel check-in time.

2.2 ALTERNATIVES TO THE PROPOSED ACTION

2.2.1 NO ACTION (REMAIN AT KEWALO BASIN)

No action would mean maintaining the site's current use of DOT contracting revocable leases with maritime and industrial tenants. Existing vacant areas would not be developed. Existing fish auction and wholesaling activities would remain at their present locations. This alternative does not meet the recommendations of *the Oahu Commercial Harbors 2020 Master Plan* or HCDA's *Makai Area Plan*. Even if fish wholesaling tenants remained in their present location at Kewalo Basin, they would still be required to upgrade their facilities in order to comply with the FDA's new HACCP regulation. It would be more costly to upgrade existing Kewalo Basin facilities to meet the new regulations, than to build new expanded and consolidated facilities at the proposed Fishing Village site.

2.2.2 ALTERNATIVE LOCATIONS

A number of site options for relocation of domestic commercial fish auction and wholesaling activities, scattered around various locations within the city, were considered. The following alternative sites were initially considered and rejected for incompatibility with existing land use, or were better served by competing uses.

2.2.2.1 Relocate to Kakaako Area

HCDA offered United Fishing Agency and their other wholesale tenants an alternate location near Kewalo Basin. The tenants rejected this offer due to concerns that their operations would not be compatible with planned neighboring retail and commercial uses due to potential fish odor and noise. The tenants prefer an industrial setting, and one in which their activities can be effectively consolidated.

[3] State of Hawaii, DOT, Harbors Division (March 1998) Survey of prospective tenants of the Domestic Commercial Fishing Village..

2.2.2.2 Relocate to Keehi Lagoon Industrial Park

The DOT Harbors Division property at Keehi Lagoon is considered to be more appropriate for other uses, either for freight forwarding or for relocation of the UH Marine Research Facility.

2.2.2.3 Relocate to Pier 35

The fully developed site at Pier 35 has numerous constraints and is currently an operational waterfront site.

2.2.3 ALTERNATIVE LAYOUTS AND PHASING

2.2.3.1 Reduced Scale

The *Oahu Commercial Harbors 2020 Master Plan* located the Fishing Village only at Pier 36. However, with support of the prospective tenants, the project was expanded to Piers 36 to 38. Several reductions to the State improvements are being proposed in order to reduce the State's project capital costs: eliminating common area amenities such as the clock tower, entry signage, and Seafarer's Hall, and reducing the Pier 38 extension to the southside only. The State will evaluate each deductive item and may defer some or adjust project phasing based on approved State funding.

2.2.3.2 Tourism Component

Originally, the Fishing Village was envisioned to support only the commercial seafood industry's needs. In support of DBEDT's recommendation to diversify and strengthen the State's tourism attractions, a tourism and retail component (retail sales, cafe, pedestrian and public areas) was added to the project.

2.2.4 ALTERNATIVE DREDGED MATERIAL DISPOSAL SITES

Ocean dumping of dredged material is the preferred disposal method. Upland disposal is an alternative method, and is required for dredged sediments that are determined unsuitable for ocean disposal, based on sediment analysis and Environmental Protection Agency (EPA) determination. Selection of an upland disposal site is based on proximity to the dredge site, ability to easily transport sediment, ability to reuse the sediment at the site (i.e., placement rather than disposal), and cost (which increases with distance and multiple handling).

Based on current analyses, it is expected that of the total 30,998 CY of material to be dredged for the proposed project, some 3,519 CY[4] may be unsuitable for ocean disposal. One option for upland placement of the material is the DOT Airport Division's Reef Runway Soil Management Facility (SMF). The SMF is permitted by the DOH Office of Solid Waste Management (OSWM) to accept, remediate, and then use as fill, soil contaminated with petroleum hydrocarbons. Dewatering at the

[4] Personal Communication, Scott Sullivan (Sea Engineering, Inc.). May, 1998.

dredge site of material bound for upland disposal would likely be by evaporation and infiltration. If discharge of dewatering effluent at the dredge site were required, this would be regulated under Sections 404 and 401 of the Clean Water Act.[5] The anticipated 3,519 CY of sediment would require transport by approximately 240 to 350 trucks.[6] Transport by barge between the dredge site and SMF may also be possible although no facilities are currently in place at the Reef Runway for docking and offloading.

If the Reef Runway SMF proved infeasible, a second option would be disposal at Nanakuli Landfill, a construction and demolition landfill owned by PVT Land Company Ltd. on the leeward coast of Oahu. Under its permit with the DOH OSWM, Nanakuli Landfill could accept dredged sediment as construction and demolition waste, and either dispose of it or use it for cover material. Access to the landfill is by truck only.

[5] Under State regulations, any dewatering discharge may also require an NPDES permit for construction-related dewatering.

[6] The number of truckloads is affected by the volume of water which would be retained by the sediment, a parameter which may vary greatly depending on the degree of drying and water retention characteristics of the sediment.

3. CHAPTER THREE - ENVIRONMENTAL SETTING

3.1 NON-MARINE ENVIRONMENT

3.1.1 PHYSICAL ENVIRONMENT

3.1.1.1 Climate

The Hawaiian Islands are at the edge of the Tropics Zone where the climate is generally mild throughout the year with small seasonal variations in temperature. Average temperatures in the area range from 81° F during the summer months (August and September) to 72.6° F during the cooler months (January and February). Rainfall is relatively low, averaging between 20 to 25 inches annually. Roughly 50 percent of the total annual rainfall occurs during the winter months, December through February.

Predominant winds are the northeast trade winds, which prevail over Oahu from February through November, with a mean wind speed of 11 miles per hour (mph). During the winter months, the trade winds occur less frequently, and Kona winds increase due to localized low pressure and frontal systems. Kona wind speeds can reach gale strength. During the rainy season, heavy storm systems may dominate. Winds associated with infrequent hurricanes can be as high as 80 knots.

The project's waterfront is sheltered from wind approach from all directions, and there is little exposed fetch for the generation of wind waves. During the infrequent occurrence of high winds in the harbor, the main effect would be on vessel operations at the site, due to the wind acting on the vessel's surface area.

3.1.1.2 Topography, Geology, Soils, and Geologic Hazards

Honolulu Harbor is at the edge of Oahu's south central coastal plain. The project site is nearly flat, sloping gradually from about +11.0 MLLW on the *mauka* side to about +7.0 MLLW at the top of the piers. The edges of Pier 38 do not drop to the water but instead are surrounded by soil covered with riprap, which slopes down to the water line (see Figure 1-3).

The coastal plain and much of the rest of the southern edge of Oahu is underlain by "caprock," consisting of coral reef interbedded with alluvium (silt, sand, and gravel washed downhill from the mountains). Near the project site the caprock is believed to be 800 to 900 feet thick. Beneath the caprock is basalt (volcanic rock).

According to the Soil Conservation Service (now the Natural Resources Conservation Service), soils in the project area are mixed fill land (FL) originating from dredging of Honolulu Harbor and Kapalama Basin. The soil is classified as useful for urban development, including airport, housing areas, industrial facilities. Borings at Pier 37 confirm the presence of up to 15 feet of silty clay fill

over weathered basalt.[1] Harbor sediment in this area consists mainly of alluvial silty clay discharged by Kapalama Stream. Geophysical exploration indicates the clay provides poor stability. (Soil contamination is discussed in Section 3.1.8; sediment contamination is discussed in Section 3.2.1.)

The island of Oahu is not subject to volcanic eruptions or significant earthquakes. It is in Seismic Zone 2A, which is characterized by earthquakes that may cause minor damage to structures.[2] Tsunamis are discussed in Section 3.2.2.

3.1.1.3 Surface and Groundwater

Surface water in the immediate vicinity of the site consists of the mouth of Kapalama Stream, which is adjacent to the site, between Piers 38 and 39. Stream water quality is strongly affected by surface runoff from urban industrial, commercial, and residential areas. (Harbor water quality is addressed in Section 3.2.1.)

The project site is located over two aquifers. The overlying caprock aquifer is nonpotable (1,000 to 5,000 milligrams per liter [mg/l] chlorine) and is not considered ecologically important. The direction of groundwater flow is assumed to be generally towards the harbor (*mauka* to *makai*) but is easily redirected by existing sheet piling, underground utilities, and other inhomogeneities. The water table is approximately at sea level this close to the shore, and it is expected to fluctuate with the tide. Existing contamination of the caprock aquifer at the site is discussed in Section 3.1.8.

The underlying aquifer is currently used for drinking water, pumped from deep wells inland of the project site. This aquifer is basal, meaning its underside is in contact with seawater. The direction of groundwater flow under the site is not known but is presumed to be in a *mauka* to *makai* direction. This aquifer is protected from surface contamination at the site by up to 900 feet of the overlying caprock.[3]

3.1.2 FLORA AND FAUNA (EXISTING)

The land area of the proposed project site is built on fill and is highly disturbed and urbanized. Cursory inspection during site visits showed vegetation limited to a few common introduced tree and shrub species, including *kiawe (Prosopis pallida)*, *haole koa* (*Leucaena leucocephala*), mangrove (*Rhizophora mangle*) and sourbush (*Pluchea indica*), as well as several unidentified ruderal (weedy) species of grasses.

No animals were observed on the site. Given the urban character of the area, species which might be expected to occur here include feral animals such as cats (*Felix domesticus*), rats (*Rattus* spp.), and Small Indian Mongoose (*Herpestes auropunctatus*). It is possible that several species of migratory shorebirds could occasionally visit the site. The most likely of these would be the widespread Pacific Golden-Plover (*Pluvialis fulva*). Many of the numerous introduced species of

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[1] Ogden Environmental and Energy Service (1993) *Final Remedial Action Report, Chevron Kapalama South Excavation and Bioremediation, Pier 37, Honolulu, Hawaii.* Prepared for Chevron USA, Inc.

[2] International Conference of Building Officials (ICBO) (1994) *Uniform Building Code.*

[3] Mink and Lau (1990) *Aquifer Identification and Classification for O'ahu: Groundwater Protection Strategy for Hawai'i.* Water Resources Research Center, University of Hawaii at Manoa.

birds common in the Honolulu area may also occur here. A listing of these species is provided in Table 3-1.

3.1.2.1 Protected or Vulnerable Species and Habitats

None of the plant species observed on the site are considered rare, endangered, or threatened, or afforded protection under Federal or State law. None of the plants encountered constitute critical habitat for any protected species of wildlife.

Of the animal species likely to visit the site, none of the mammalian species are protected, and are in fact considered pests. Of the birds, migratory species such as the Pacific Golden-Plover are afforded some protection under the Migratory Bird Treaty Act (MBTA). Taking, killing or possessing these species is regulated under the MBTA.

Table 3-1. Common Introduced Bird Species of Urban Honolulu

Common Name	Scientific Name
Spotted Dove	*Streptopelia chinensis*
Zebra Dove	*Geopelia striata*
Rock Dove	*Columba livia*
Red-vented Bulbul	*Pycnonotus cafer*
Red-whiskered Bulbul	*Pycnonotus jocosus*
Common Myna	*Acridotheres tristis*
Northern Mockingbird	*Mimus polyglottos*[1]
Northern Cardinal	*Cardinalis cardinalis*[1]
Red-crested Cardinal	*Paroaria coronata*
Japanese White-eye	*Zosterops japonicus*
House Sparrow	*Passer domesticus*
Nutmeg Mannikin	*Lonchura malacca*
House Finch	*Carpodacus mexicanus*[1]
Java Sparrow	*Padda oryzivora*

[1] Listed under MBTA.

3.1.3 AIR QUALITY

The State of Hawaii is in attainment of National Ambient Air Quality Standards (AAQS). These standards have been established to protect human health and welfare and provide a national measure used to determine the level of pollution control needed for specific air basins. Standards have been established for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less that 10 microns in diameter (PM-10), particulate matter up to 2.5 microns in diameter (PM-2.5), and lead (Pb). In addition, the project site is in compliance with the more stringent State of Hawaii AAQS. However, exceedances of the State standard for CO have been known to occur due to the build-up of CO emissions from vehicle traffic delays during unfavorable weather conditions (e.g., the absence of trade winds).

The primary sources of emissions in the harbor area are vehicles and light industrial and maritime uses, including cranes, tugboats and light equipment. The project site is within one mile of the Honolulu International Airport. The nearest DOH air monitoring station is at Sand Island across the harbor. Additional stations collect data from downtown Honolulu and Liliha, approximately one to two miles east and north-east of the project site, respectively. Station data collected from 1996 indicate that national and State standards for CO, SO_2, PM10 and O_3 were being met.[4]

In addition to the above-mentioned emissions sources, TGC periodically vents propane during the transfer of propane to barges berthed at Pier 38. Their propane air machine also requires flaring during the first 5 to 10 minutes of start-up, and occasionally during operation of equipment. The venting during transfer of propane gas results in releases of propane which are generally dissipated by tradewinds. Dissipation may occur more slowly if venting takes place during periods of northwesterly winds. The flaring operations generally result in combustion of most of the excess propane gas, which may result in emissions of combustion by-products (e.g., PAHs).

3.1.4 NOISE

The proposed project is located within the highly-industrialized Honolulu Harbor complex. The two major sources of noise in the area are vehicular traffic and aircraft overflights. Aircraft departure noise from Honolulu International Airport's Reef Runway creates a relatively high ambient noise environment, between 70 and 75 Ldn at the project area. (Ldn is the day-night metric sound level that averages noise levels over a 24-hour period, with a penalty for evening noise.) Industrial activities are generally compatible within the 70 Ldn noise level according to the U.S. Federal Aviation Administration's (FAA) Aviation Regulations Part 150 Noise Control and Compatibility Planning Program.[5]

In addition to the above-mentioned noise sources, TGC's propane air machine is tested for approximately one hour every two weeks. The use of this equipment temporarily causes high ambient noise in the area.

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[4] State of Hawaii, DOH, Clean Air Branch (1996) *Hawaii Air Quality Data.*

[5] Wilson Okamoto and Associates, Inc. (October 1996) *Hart Street Wastewater Pump Station Force Main Replacement, Final Environmental Assessment.* Prepared for City and County of Honolulu, Department of Wastewater Management.

3.1.5 LAND USE

Piers 36-38 are located in Honolulu Harbor, the largest civilian port in the state and one of two commercial deep draft harbors on Oahu. The harbor was originally a natural open-water channel carved through a coral reef by discharge from freshwater streams. The Honolulu Harbor complex is primarily composed of land created from dredged fill. The original shoreline at Iwilei was considerably inland of the present harbor line. The open water portion, now Kapalama Channel, was dredged during the 1920s and 1930s.

The project site is situated on land owned by the State of Hawaii, under jurisdiction of DOT Harbors, which leases parcels to various harbor-related businesses. Most of the project site has been cleared. Existing small warehouses, sheds, vehicles, drums and debris, and fuel tanks are scattered throughout the site. Surrounding land use is characterized by industrial and harbor operations.

Pier 36, a concrete deck on concrete piles, was constructed in 1931. Three small buildings are clustered at the far end of the Pier, with larger structures located near the *mauka* end near the Hart Street Pump Station. Beginning in the 1930s land uses at Pier 36 were dominated by inter-island pineapple transport and storage. Previous tenants included DOT Harbors (under the former name, Board of Harbors Commissioners), Dole Corporation and Castle and Cooke, Flynn-Lerner Company, the City and County of Honolulu, Lanai Resort Partners, and Isle-Ways Ltd., operating storage, maintenance, or freight-forwarding facilities.

Most of Pier 37 was constructed in the 1930s, with the finger pier added in 1987 to serve as berthing for transient fishing vessels. Pier 38 was constructed in 1954 to provide a direct loading area for refined petroleum products. Prior to construction, a Board of Harbors Commissioners construction plan showed the *makai* end of the project site to be under five to seven feet of water.

Pier 38 is located along the Kapalama Drainage Canal and has a waterfront perimeter of over 1,500 feet. Since 1957, TGC has used the site to store, load, and transport LPG. Their facilities include a warehouse, office, propane air system, propane tank yard, diesel fuel storage tank, and service areas. Since construction, Chevron has maintained a fuel terminal for above-ground storage and distribution of petroleum products. Chevron currently maintains two above-ground tanks adjacent to Nimitz Highway, adjacent to the project site. Various pipelines from their petroleum storage facilities remain. Standard Oil of California maintained an asphalt plant on the *mauka* pier end until 1990. Other tenant uses have included ship repair, storage, and maintenance facilities.[6]

3.1.6 CULTURAL AND HISTORIC RESOURCES

According to previous environmental assessments of the area, there are no identified archaeological or cultural resources of concern at Piers 36-38 and no historic sites are registered with the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources.[7] While Pier 36 and Pier 37, constructed in the 1930s, are recognized as historic, they are not on the National Register of Historic Places.

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[6] Earth Tech, Inc. (January 1997) *Honolulu Harbors-Iwilei Unit, Phase One Environmental Assessment of Harbors Division Properties (draft).* Prepared for the State of Hawaii, DOT Harbors Division.

[7] Cultural Surveys Hawaii (February 1995) *Archaeological Survey, Appendix B of the Hart Street Wastewater Pump Station Force Main Replacement, Final EIS* (Oct 1996).

The harbor was originally a natural open-water channel carved through an exposed coral reef by discharge from freshwater streams. The original Iwilei shoreline was considerably inland of the present harbor line. The open water portion, now Kapalama Channel, was dredged during the 1920s and 1930s. The project location was a part of the Kapalama Fishery, considered a traditional Hawaiian place. Several listed Hawaiian fishponds are located over 100 feet west of the project site near the Kapalama Military Reservation (SHPD site 73; *Loko Ananoho* and *Loko Au'iki*). The fishponds and fishery formed the seaward zone of the Hawaiian land division or Kapalama *ahupua'a*.[8] Hawaiian fishponds were used to cultivate fish and were typically property of the high chiefs. The fishpond systems declined and were systematically filled as Hawaiian royalty became more westernized. [9] The Kapalama Channel was formed by dredging into the reef in the 1920s and 1930s and the piers constructed from the dredge material.

SHPD recently uncovered an historic burial at Pier 40. The finding was unusual for this area, and it is not expected that additional sites will be found in the project or harbor region.

3.1.7 VISUAL RESOURCES

Piers 36-38 are limited to industrial and maritime uses and are not open to public or recreational boating access. Currently, the waterfront view from Nimitz Highway is blocked by Chevron's multi-story fuel tanks, fencing, the City's pump station facility, and on-site warehouses.

3.1.8 HAZARDOUS MATERIALS AND CONTAMINATION

Previous uses of the site and adjacent sites are known to have resulted in contamination of soil and groundwater. Pier 38 was formerly the Chevron Kapalama South jet fuel storage facility. Although the above-ground jet fuel storage tanks have been removed, various underground fuel pipelines extend onto *mauka* portions of the site, and cross from beneath Nimitz Highway.[10]

Previous investigations have identified petroleum contamination of soil, heavy metal contamination, and floating product (i.e., petroleum product that floats on top of groundwater).[11] Large volumes of soil contaminated with jet fuel have been bioremediated and backfilled on site. Remaining soil and groundwater contamination exceeding DOH cleanup guidelines for metals (arsenic, chromium, lead, and zinc), BTEX (benzene, toluene, ethylbenzene, and xylenes), and PAHs (polycyclic aromatic hydrocarbons) remains in the *mauka* portions of the site. PAHs exceeding guidelines are also present in soil near the end of Pier 38.

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[8] SHPD (1992) *Fishponds and Coastlines of Late 19th Century Oahu* (draft).

[9] William Kikuchi (1973) *Hawaiian Aquaculture Systems.*

[10] Earth Tech, Inc. (January 1997) *Honolulu Harbors-Iwilei Unit, Phase One Environmental Assessment of Harbors Division Properties (draft).* Prepared for the State of Hawaii, DOT Harbors Division.

[11] Earth Tech, Inc. (1997) *Honolulu Harbors-Iwilei Unit: Phase One Environmental Assessment of Harbors Division Properties (draft).*

Clement International Corporation (1992) *Final Health-Based Risk Assessment for the Formal Kapalama Fuel Terminal, Honolulu, Hawaii.*

Ogden Energy and Environmental Services, Inc. (1995) *Final Report: Pier 38 Initial Site Assessment Honolulu Harbor, Hawaii.*

Floating product has been identified at two locations at Pier 36 (near the Hawaii Transfer Warehouse at the base of the pier and at the *mauka* edge of the property). Due to tidal fluctuations of groundwater, free product moves up and down with the water table, contaminating a layer of soil one or more feet thick. The project site is one property within the Iwilei Unit of an ongoing area-wide investigation. It is the scope of the Iwilei Unit investigation to perform specific investigation and/or complete remedial action of encountered petroleum contamination.

3.1.9 CIRCULATION AND TRAFFIC

3.1.9.1 Existing Circulation

Access to the project site is provided by Nimitz Highway and Alakawa Street. Nimitz Highway, a State right-of-way, connects downtown Honolulu and Hickam Air Force Base. At the downtown terminus of the highway, Nimitz converts to Ala Moana Boulevard, which extends eastward into Waikiki. At the Hickam terminus, Nimitz feeds two off-ramps: one that enters the H-1 Freeway and the other that connects with Kamehameha Highway. Both of these highways extend westward through Aiea and Pearl City.

In the Waiakamilo area, Nimitz is a six-lane divided highway with a landscaped median strip. Signalized intersections occur at all the cross streets in the area. At the project site, there are two accesses from Nimitz Highway. The western access consists of a signalized four-way cross intersection. The cross streets to Nimitz are a private road serving the industrial properties on the *mauka* side and an ingress/egress for the State Harbors property on the *makai* side. There are left-turn storage lanes on Nimitz, but none on the cross streets. There are, however, turning lanes for right-turn movements on all the approach roads. These lanes do not include any accommodations for acceleration/deceleration.

The eastern access consists also of a signalized four-way cross intersection. The *mauka* cross road to Nimitz is Alakawa Street, a City right-of-way which previously connected with Nimitz at the western access to the Fishing Village site. The new Alakawa Street was recently constructed to connect Dillingham Boulevard and Nimitz Highway. The *makai* road is an ingress/egress for the State Harbors property. Similar to the western intersection, there are left-turn storage lanes on Nimitz, but no storage lanes on the cross roads. Turning lanes for right turn movements are provided on all approach roads.

3.1.9.2 Existing Traffic

A 24-hour traffic count, taken by the State Department of Transportation on May 6, 1996, showed a two-way volume of 83,583 vehicles on Nimitz Highway at the project site. This count was taken on a weekday, when traffic volumes are usually higher than on the weekends. The morning peak hour occurs between 7:00 a.m. and 8:00 a.m. and had a traffic volume of 6,586 vehicles during the 1996 count. The afternoon peak hour occurs between 3:45 p.m. and 4:45 p.m. and had a volume of 6,771 vehicles. These volumes are considered high and have resulted in slow movement and congestion, especially at the signalized intersections.

Nimitz Highway is a major route for TheBus, the City's public mass transit system for Honolulu. It is also a major route for commercial buses, vans and limousines, which transport visitors between the airport and Waikiki. Heavy trucks make regular deliveries through this industrial area, particularly

because Honolulu Harbor is a primary distribution center for offshore commodities (goods) arriving in Hawaii.

As a multi-modal transportation corridor, Nimitz Highway also serves as a designated bikeway. A bike lane, in either direction, is located on the shoulder area of the vehicular travelway.

3.1.9.3 Future Projections for Area Traffic

As a regional facility serving central Honolulu, Nimitz Highway will continue to experience increased traffic even without the addition of the Fishing Village. From a study by Parsons Brinckerhoff in 1994, traffic on Nimitz was projected to increase from 79,100 vehicles in 1991 to 94,700 vehicles by 2005, an increase of 20 percent over 14 years. Although the resident population on Oahu has grown slowly over the past four years, the extent of development in central Honolulu has remained relatively active. Ala Moana Shopping Center, for instance, is expanding with more stores. New shopping centers are being planned and developed in Waikiki; Victoria Ward has announced plans to redevelop the Ward Center and Ward Warehouse sites; and development of a recently announced Keeaumoku block entertainment center is moving forward. Across Nimitz Highway from the Fishing Village, warehouses and storage yards have been removed and large properties are now available for new industrial and commercial uses.

3.1.10 PUBLIC SERVICES (HEALTH AND SAFETY)

Emergency response, such as police and fire protection, and medical treatment are under the jurisdiction of the City and County of Honolulu. The nearest police station is located downtown in Chinatown. Waiakamilo Fire Station is located just west across Nimitz Highway. Nearby medical facilities include Kuakini Hospital and Queen's Medical Center, approximately 1.5 to 2 miles to the north and east, respectively, of Piers 36-38.

DOT's Harbor Patrol boat will respond to security and emergency situations, as needed. In addition to the Harbor Patrol, the U.S. Coast Guard has Federal enforcement responsibilities in the harbor, and the Honolulu Fire Department berths a fire boat at Pier 5, responding to fires along the waterfront or on boats outside of the harbor.

3.1.11 UTILITIES

3.1.11.1 Water

There is an existing BWS-maintained 12-inch water main within the Pier 36 access roadway from Nimitz Highway, approximately 450' into the property. The 12-inch water main is connected to the Kalihi Pump Station, pumping elevation 180 feet.

There are existing service laterals to Piers 35, 36 and 37 for water service at the piers and to the DOT Harbor's tenants. All water service laterals are metered by BWS.

3.1.11.2 Sewer

The major sewer line *mauka* of the project site are the 54 " Kapalama Relief Sewer and the Nimitz Highway 54" Relief Sewer. Both sewer mains are connected to the Hart Street Pump Station. Current monthly average daily flow rates at the Hart Street Pump Station range from 16.34 to 19.05 million gallons per day (mgd).[12]

3.1.11.3 Drainage

The project site lies between 4 and 7 feet above MLLW elevation.

Drainage along the existing roadways is collected at drain inlets, which outlet into both the Kapalama Canal and Honolulu Harbor. The remaining areas sheetflow toward either the Kapalama Canal or Honolulu Harbor.

3.1.11.4 Fuel

There are existing Chevron and TGC lines within the project site.

3.1.11.5 Electrical, Lighting & Telephone

The existing electrical service on the site consists of the 12.47 kilovolt 3-phase overhead distribution, transformers, and secondary service drops owned and maintained by Hawaiian Electric Company (HECO). The HECO system also includes the pad-mounted transformer at Pier 37 and the underground line connecting the transformer to the pole with the overhead line. Not included in the HECO system is the transformer for Chevron.

Besides Chevron, HECO provides service to the GASCO facility, two buildings, and for lights and power outlets for Piers 36 and 37. Each service is metered separately.

There are pole lights on both Piers 36 and 37 and along the access road to Pier 37. These lights are on the HECO service provided by the pad-mounted transformer at Pier 37.

The overhead telephone lines on the site are owned and maintained by Hawaiian Telephone Company (HTC). Telephone lines are on the same poles as the HECO lines.

3.1.12 SOCIOECONOMIC ENVIRONMENT

3.1.12.1 Population

Oahu's resident population in 1993 was 866,500, 45 percent of whom lived in urban Honolulu. The residential neighborhoods nearest the project site are downtown and Kalihi-Palama. Piers 36-38 are located in the Kalihi-Palama District with a resident population of 40,147, made up of 624

[12] Wilson Okamoto and Associates, Inc. (October 1996) *Hart Street Wastewater Pump Station Force Main Replacement, Final Environmental Assessment*. Prepared for City and County of Honolulu, Department of Wastewater Management.

households. The project site is part of Census Tract 57 with a resident population of 1,867.[13] The nearest residence is located one-quarter mile to the northwest of the project site, on Hart Street. The median annual household income in the Kalihi-Palama and neighboring downtown area averaged just over $25,000 in 1990, compared to Oahu's median annual income of $40,581.[14]

3.1.12.2 Economic Activities

Piers 36 to 38 are situated in the Honolulu Harbor complex that is characterized by light industrial, maritime, and commercial uses. The Honolulu International Airport, Sand Island, Keehi Lagoon, Iwilei, and the downtown core are located nearby.

Hawaii's ocean industries are a fast-growing and integral component of Hawaii's economy. In the last decade, commercial fishing and seafood marketing have experienced double-digit growth. It is estimated that combined 1998 revenues for these two ocean industries will exceed $290 million, with employment forecast at over 4,200.[15] Honolulu Harbor was ranked as having the sixth highest dollar value in fish landings in the U.S. in 1993.

According to DBEDT's Ocean Resources Branch,[16] Hawaii's commercial fishing industry has diversified, no longer depending on a single species (*aku*, or skipjack tuna) and has increased fish landings to nearly twice the catch of the late 1980s. DBEDT predicts that in the foreseeable future, annual landings will remain steady, with additional revenue growth due to upward pricing from inflation and the growth of a few additional fisheries. The major factors constraining the Hawaii market from reaching its full potential are the highly restrictive seafood quality and handling requirements for *sashimi*-grade product, and competing production from Asia. In addition, berthing space for fishing fleet expansion is currently limited.

Tourism accounts for approximately one-quarter of the gross state product and one-third of total employment.[17] The number of Hawaii visitor arrivals reached 6,829,800 in 1996 and is expected to grow at a modest rate in the next few years.[18] Although a modest one percent growth is forecast for 1998 visitor arrivals due to the Asian economic turmoil,[19] the number of arrivals to the State is projected to double to 12.6 million visitors in the next 25 years. The average daily visitor census on Oahu was 45,370 in 1996, representing over 50 percent of the state's total.[20] Daily per capita

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[13] State of Hawaii, DBEDT (1996) *State Data Book,* Table 1.15: Residential Population and Households for City and County of Honolulu, by Districts and Census Tracts: 1990.

[14] State of Hawaii, DBEDT (1996) *State Data Book,* Table 1.14: Characteristics of Oahu Neighborhoods: 1990.

[15] State of Hawaii, DBEDT (September 23-26, 1996) *Oceans '96 Proceedings; A Synopsis of Hawaii's Strategy for Ocean Industry Development*, Table 1.

[16] MacDonald, Dr. C.D. (June 1996) *Hawaii Ocean Industry and Shipping News*; "Catch of the Day: Hawaii's Changing Fisheries."

[17] First Hawaiian Bank (March/April 1996) *Economic Indicators* "Measuring Hawaii's tourism sector: A quarter of the economy; a third of the jobs."

[18] State of Hawaii, DBEDT (1996) *State Data Book*, Table 7.03-Visitor Arrivals and Average Visitor Census: 1965 to 1996.

[19] First Hawaiian Bank (November/December 1997) *Economic Indicators.*

[20] State of Hawaii, DBEDT (1996) *State Data Book*, Table 7.06-Average Visitor Census, by Counties and Islands: 1995 and 1996.

visitor expenditures in 1996 equaled $137.02 for mainland visitors and $286.89 for visitors from Japan.[21]

There are currently no developed tourist facilities adjacent to Piers 36-38. Within Honolulu Harbor at Piers 8 and 9, the Aloha Tower retail development attracts residents and visitors. Piers 10 and 11 serve as Oahu's cruise ship terminal, with over 14,500 overseas passenger arrivals in 1994. Piers 36-38 are centered on the arrival roadway between the Honolulu International Airport and Waikiki. Along this corridor, other important tourist, recreational, and retail facilities include the Dole Cannery, historic Chinatown, Iolani Palace, Ala Moana Shopping Center, and Ala Moana Beach Park.

3.1.12.3 Recreation

There are no recreational resources at the site. The Sand Island State Recreation Area, Kakaako Waterfront State Recreation Area, and Keehi Lagoon Canoe Complex are located nearby.

3.1.12.4 Ceded Lands

The project area is not considered ceded lands as described in the Admission Act[22] and based on DOT's preliminary investigation of the land status. Documents referenced by DOT include the Governor's Executive Order No. 1346, the Chain of Land Titles and Land Title Map for the Final Report of the Public Land Trust, and DLNR's State Land Inventory.[23]

3.2 MARINE ENVIRONMENT

3.2.1 HARBOR SEDIMENT AND WATER QUALITY

Harbor water and sediment have been subject to long-term contamination from surface runoff, pollutants carried by Kapalama Stream, discharges and paint flaking from vessels, and migration of contaminated groundwater into the harbor. Existing contamination in the harbor area is currently under investigation by DOT Harbors and several private parties.

Sediment. Sediments in the project area were sampled and analyzed in five studies between 1978 and 1998. A 1995 study was specifically for dredging along the *ewa* and *makai* sides of Pier 38.[24] That study found that PAHs were the primary contaminant of concern within the area proposed for dredging. PAHs were detected in concentrations thought to have "probable" adverse effects on biota. Other contaminants found in the sediment included metals (arsenic, chromium, copper, mercury, and nickel) and organic tin compounds in concentrations with "possible" adverse effects. Concentrations of pesticides, PCBs, phthalates, and phenols were all lower than minimal effects concentrations.

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[21] State of Hawaii, DBEDT (1996) *State Data Book*, Table 7.19-Expenditures per Visitor Day by Visitors from the Mainland and Japan.

[22] 42 U.S.C. 1983. 739 F.2d 1467.

[23] DOT Harbors, HAR-PM(A) (March 19,1998) Internal memorandum to DOT Harbors, HAR-ED.

[24] MEC Analytical Systems, Inc. (1995) *Dredge Material Testing and Analysis, Berth 37, Port of Honolulu.* Prepared for the Lacayo Group.

The samples were analyzed using test criteria for sediment disposal at the South Oahu ODMDS. Samples from the *makai* side of the pier indicated that these sediments are probably suitable for ocean disposal, provided extrapolated data on bioaccumulation levels of chromium and nickel are found acceptable by USEPA. Samples from the *ewa* side of the pier did not meet criteria for ocean disposal due to the presence of "hot spots" of high PAH contamination. The study concluded that most of the sediment from this area would be suitable for ocean disposal after removal of small volumes of PAH-contaminated sediment.

A confirmation study of sediments at Pier 37 and 38 was conducted in 1998[25] to identify whether changes in contamination had occurred since the 1995 study. In addition, the study included Toxicity Characteristic Leaching Procedure (TCLP) tests to determine whether any sediment would be categorized as hazardous for upland disposal purposes. Results of this study revealed that PAHs and total recoverable petroleum hydrocarbons (TRPH) levels were high at some locations; PAH levels would likely be of toxicological concern. Metals detected at slightly higher levels than the 1995 study included chromium, copper, lead, mercury, nickel, and zinc, although none were high enough to be of toxicological concern. Pesticides were not detected, and PCBs were detected at low levels. Results of TCLP tests were below detectable indicating that the dredged sediment would not be considered hazardous waste (40 Code of Federal Regulations Part 261). These results provided the basis for determining which areas of sediment would need to be disposed of upland, and which were suitable for ocean disposal.

According to the most recent study, the physical makeup of the sediments consists variously of silt and clay, and sand and gravel. Sediments resuspended during dredging of silty-clayey portions will likely remain in the water column longer than those from areas containing coarser (sand-gravel) materials.

Water. The State has classified the waters of Honolulu Harbor as Class "A," indicating the waters are to be protected for "recreational purposes and aesthetic enjoyment." The harbor is subject to large turbidity plumes from passing ships and from storm water discharge during heavy rains. The results of previous water quality analyses conducted in Honolulu Harbor in the vicinity of the project site are presented in Appendix A.

3.2.2 PHYSICAL OCEANOGRAPHY

Honolulu Harbor is identified by the State of Hawaii as an "artificial basin," i.e., a dredged or quarried channel harbor.

Tides in Honolulu Harbor are semidiurnal (i.e., occurring on a half-day cycle), with a marked diurnal (daily) inequality. The mean tide range is 1.2 feet. Relative to mean sea level, MLLW is –8.0

[25] MEC Analytical Systems, Inc. (April 1998) *Sampling and Analysis Plan, Pier 37/38.*

MEC Analytical Systems, Inc. (May 1998) *Pier 37/38 Port of Honolulu, Hawaii Dredge Sediment Characterization Confirmation Draft Report.* Prepared for Shigemura, Lau, Sakanashi, Higuchi, and Associates.

MSL and mean higher high water (MHHW) is +1.3 MSL. During hurricanes and other storms, water level may rise as much as 3.2 ft above normal, i.e., a maximum rise to +4.2 MSL.[26]

Waves at the project site are typically negligible except for boat wakes from passing vessels. The harbor is not exposed to prevailing northeast tradewind waves and the winter North Pacific swell. It is protected from the south swell and Kona storm waves by the land mass of Sand Island. Incoming waves are attenuated as they move shoreward up the long entrance channels passing the island. As a result, harbor waters are typically calm except during local storms or hurricanes.

Tsunami runup has not historically been a serious problem in Honolulu Harbor. The predicted water level rise during a 100-year tsunami on the seaward side of Sand Island is 3.5 ft above prevailing water level.[27] Recorded tsunami runup heights on the Oahu coast between Ala Moana Park and Pearl Harbor have typically been 5 ft or less.[28]

Currents have not been measured in the immediate vicinity of the project site. Ebb and flood tide flowing in and out of nearby Keehi Lagoon has been measured at up to 0.5 feet per second (fps); currents at the site are estimated to have about half this speed.[29]

3.2.3 MARINE BIOLOGY

Past surveys reported several areas within Honolulu Harbor supporting some growth of hermatypic (stony) corals. Corals were reported growing around the intake and discharge basins of the Honolulu Generating Station (Piers 6 to 8), and in the harbor entrance off the Sand Island shore across from Fort Armstrong. Corals were also observed between Piers 12 and 15, with *Porites lobata*, *P. compressa*, and *Montipora verrucosa* creating up to 25 percent cover on the sloping bottom of Pier 12. Corals were also seen growing on pilings around Pier 1, up to a maximum of 10 to 15 percent coral cover. Biologically, the immediate project area is in a degraded state. The survey station nearest to the project site for which data are available is at the mouth of Kapalama Stream. In an April, 1994, assessment, this survey station was characterized as "barren" in comparison with a number of other sites that were surveyed in the harbor. In the stream mouth itself, mud burrows, presumably occupied by the snapping shrimp *Alpheus malabaricus mackayi* and small blennies (Blennidae) occurred in considerable density. The boulders of the revetment on Pier 38 were reported to provide habitat for several common species of reef fish, including sergeant majors (*Abudefduf abdominalis*), surgeonfishes (*Acanthurus lucopareius*), a snapper (*Lutjanus*

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[26] Bretschneider, C.L. and E.K. Noda (1985) *Hurricane Vulnerability Study for Honolulu, Hawaii, and Vicinity*. In Volume 2: Determination of Coastal Inundation Limits for Southern Oahu from Barbers Point to Koko Head. Prepared for the U.S. Department of the Army, Pacific Ocean Division, Engineer Division.

[27] M&E Pacific, Inc. (1978) *Manual for Determining Tsunami Runup Profiles on Coastal Areas in Hawaii*. Prepared for the U.S. Department of the Army, Pacific Ocean Division, Engineer Division.

[28] Loomis, H.G. (1976) *Tsunami Wave Runup Heights in Hawaii*. Hawaii Institute of Geophysics Technical Paper HIG-76-5. University of Hawaii at Manoa.

[29] Lacayo Planning Inc. in association with Sea Engineering, Inc. (1994) *Pier 38 Master Plan Final Environmental Assessment*. Prepared for State of Hawaii Department of Business, Economic Development and Tourism.

fulvus), and butterfly fishes (*Chaetodon lunula*, C. *miliaris*), but the mud slope in this area did not apparently support any fish species.[30]

3.2.3.1 Protected Species

On rare occasions, green sea turtles (*Chelonia mydas*), listed as threatened and protected under the Endangered Species Act (ESA) have been reported in Honolulu Harbor. Even more rarely, humpback whales (*Megaptera novaeangliae*), listed as endangered under the ESA, have been sighted in the harbor. However, Honolulu Harbor is not the preferred habitat for either species, and it is believed that their entry into the harbor may be inadvertent and accidental.[31]

3.2.4 HARBOR OPERATIONS

Honolulu Harbor presently consists of an east entrance channel (Honolulu Channel), the main harbor basin, a west harbor basin (Kapalama Basin), a 3,400-foot-long connecting channel between the two basins (Kapalama Channel), and a second entrance channel (Kalihi Channel). The project site is on the north side of Kapalama Basin.

Navigation in Honolulu Harbor waters is under the jurisdiction of the Harbor Master of the State of Hawaii. The Harbor Master's tower operations are located at Aloha Tower. Significant numbers of ships and barges traverse the Kalihi Channel and Kapalama Basin, directly off Piers 36 to 38. In general, commercial ship traffic includes large container ships, cruise ships, tankers, commercial fishing boats, tugs, and barges. The major harbor users include Sea-Land, Young Brothers, Ltd., Honolulu Shipyard, Matson Navigation Company, the "Hawaii Responder," Unocal, TGC, P&R Water Taxi, and the U.H. Marine Center vessels at Snug Harbor.[32]

The DOT Harbors Division permits recreational boats and private vessels to transit the harbor, but they are not allowed to tie up to the piers. Occasional recreational boating events are scheduled in the harbor, such as the King Kalakaua Paddling Regatta.

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[30] Lacayo Planning Inc. in association with Sea Engineering, Inc. (1994) *Pier 38 Master Plan Final Environmental Assessment*. Prepared for State of Hawaii Department of Business, Economic Development and Tourism.

[31] Personal communication, Eugene Nitta, National Marine Fisheries Service, March 6, 1998.

[32] Wilson Okamoto & Associates (1992) *Final EIS for the Marine Education and Training Center and Public Boat Launch Facility*. Prepared for the State of Hawaii, DBEDT, Honolulu, Waterfront Project.

4. CHAPTER FOUR - POTENTIAL ADVERSE IMPACTS (SHORT-TERM AND LONG-TERM) AND MITIGATION MEASURES

4.1 NON-MARINE ENVIRONMENT

4.1.1 PHYSIOGRAPHY

4.1.1.1 Significance Criteria

Impacts of the proposed action on the geologic environment would be considered significant if:

- Substantially adverse alteration of topography would occur, beyond that resulting from natural erosion and deposition.
- Substantial irreversible disturbance of the soil material at the site could cause its use for normal purposes in the area to be compromised.
- Geologic processes such as major landslides or erosion would be triggered or accelerated.

Impacts of earthquakes on the proposed project would be considered significant if earthquake activity damages or compromises the safety of project structures, causing settlement, surface cracks, liquefaction, or historic soil or slope failure.

4.1.1.2 Short-Term Impacts

4.1.1.2.1 Dredging Impacts

Dredging will not affect upland topography or soils. Impacts of dewatering and upland disposal of dredged materials are discussed in Section 4.2.1.2.2.

4.1.1.2.2 Construction Impacts

During construction, on-site clearing and grading operations have the potential to increase short-term erosion, soil disturbance, and runoff. Because of the flat terrain, short-term erosion resulting from construction would be limited. Because the site is more than 5 acres, a NPDES permit will be required for storm water discharges associated with construction activities, and permit requirements will include standard erosion and pollutant control measures to prevent impacts and discharge of pollutants resulting from construction activities. To the extent possible, construction will be conducted during periods of low rainfall. A landscaping and erosion control plan will be prepared prior to land clearing or construction activity. All construction activities will comply with the requirements of Title 11, Chapter 55 of the DOH Administrative Rules on Water Quality Control.

The site topography will remain flat and will not be impacted. The use of soil in the area is solely to support industrial and commercial structures; it will not be adversely impacted.

To avoid potential damage to structures due to seismic activity, fill material will be compacted using standard geotechnical engineering techniques.

Potential hazards associated with construction activities conducted on a site with petroleum-contaminated soils are discussed in Section 4.1.9.

4.1.1.3 Long-Term Impacts

No impacts on the geologic environment will result from the proposed Fishing Village operations at Piers 36-38. Although the project is not in a high-risk seismic zone, potential impacts due to geohazards (resulting form earthquake activity) will be mitigated by the project design, and are therefore considered less than significant.

4.1.1.4 Mitigation Measures

As part of the NPDES permit process, the contractor will be required to develop and implement Best Management Practices (BMPs) designed to meet the State's requirements for protection of water quality. Specific BMPs may include use of silt fences, temporary soil stabilization, and other appropriate methods to prevent sediment runoff into State waters.

As impacts relating to soils, erosion, and geohazards will be temporary and less than significant, no mitigation measures will be required beyond compliance with NPDES permit conditions and implementation of standard erosion control measures.

4.1.2 SURFACE AND GROUNDWATER

4.1.2.1 Significance Criteria

Significant impacts on surface water in the project area would occur if the project resulted in the following:

- Degradation of storm water quality, affecting existing and future beneficial uses of receiving waters.
- Generation of a discharge that creates pollution, contamination, or nuisance.
- Release of substances that would result in substantial water-related toxic effects to humans, flora, or fauna.
- Alteration in the rate or direction of groundwater flow which would result in the contamination of seawater.
- Release of hydrocarbons or related contaminants to surface waters in such concentrations that they would violate existing local, State, or Federal statutes.

4.1.2.2 Short-Term Impacts

4.1.2.2.1 Dredging Impacts

No impacts to streams, storm water, or groundwater would occur at the dredge site. Impacts on harbor waters are discussed in Section 4.2.1. Potential impacts on the dredged material disposal site are discussed in Section 4.2.1.2.2.

4.1.2.2.2 Construction Impacts

Potential demolition- and construction-related impacts to storm water quality would include increased sediment loading and turbidity, and possible introduction of any contaminants present in the soil. Such impacts would be reduced to less than significant levels by implementing standard erosion and pollution control measures (Best Management Practices). Construction practices will comply with site-specific NPDES permit conditions and with State and Federal regulations. BMPs may include use of silt fences, temporary soil stabilization with vegetation, or other appropriate measures, as needed, to prevent erosion.

The potential for petroleum releases from construction equipment will be minimized by requiring the contractor to perform any vehicle maintenance on paved surfaces with absorbent materials available in case of a spill.

Construction, including removal of groundwater through dewatering, would not significantly alter the rate or direction of groundwater flow. Impacts of excavating contaminated soil are addressed in Section 4.1.9.

4.1.2.3 Long-Term Impacts

Operation and maintenance of the Fishing Village will not impact streams, storm water, or groundwater at the site. No significant releases of hydrocarbons are expected to occur as a result of operations or maintenance. All cutting and preparation of fish will take place in interior areas, where fish waste will be collected in containers, sumps, and grease traps, removed from the site, and properly disposed of. The fox valve drainage system (described in Section 2.1.3.3) will minimize introduction of organic fish waste into surface water runoff. Impacts of storm water discharge on ocean waters are further discussed in Section 4.2.1.3.

4.1.2.4 Mitigation Measures

Impacts on streams, storm water, and groundwater will be less than significant. No mitigation measures are proposed, beyond the management practices listed above.

4.1.3 FLORA AND FAUNA

4.1.3.1 Significance Criteria

Impacts of the proposed project on flora and fauna would be considered significant if:

- The impacts would result in substantial adverse effects on any rare, threatened or endangered plant or animal species, including State or Federally listed, proposed, or candidate species, or destruction or adverse modification of critical habitat.
- The impact would involve the loss or long-term degradation of a sensitive habitat.
- There would be interference with the movement of resident or migrant wildlife.
- The impact would violate local, State, or Federal law with respect to the protection of biological resources.

4.1.3.2 Short-Term Impacts

The project site has a history of extreme prior disturbance. Endangered and threatened species are generally not found here, and no critical habitats are located here. Construction would not produce any impacts that would interfere with movement of wildlife, and the proposed action would not violate any laws dealing with biological resources. Thus, no significant impacts are expected to result from construction.

4.1.3.3 Long-Term Impacts

The open areas of the site may provide potential resting and foraging habitat for the Pacific Golden-Plover, a migratory shorebird. With development of the project, the open areas of the site will be reduced. However, even if this species is presently utilizing the project site, it is quite adaptable and can utilize any open fields in the vicinity as replacement habitat, even in a highly urbanized setting. For these reasons, and because rare, threatened or endangered species or critical habitats are generally absent, no significant long-term impacts are expected to occur as a result of the operation of the Fishing Village.

4.1.3.4 Mitigation

Because no significant impacts to flora and fauna are expected to occur as a result of the proposed project, no mitigation is required.

4.1.4 AIR QUALITY

4.1.4.1 Significance Criteria

Criteria to determine the significance of air quality impacts are based on Federal and State air quality standards and regulations. The DOH has established standards under the Hawaii Administrative Rules (HAR) 11-60-1. These primarily apply to stationary sources, with few pertaining to the management of mobile emissions sources. Odor and fugitive dust are other air quality issues associated with on-land stockpiling of dredged materials, and with other construction activities. Impacts would be considered significant if:

- Project emissions increase ambient pollutant levels such that they exceed Federal or State Ambient Air Quality Standards (AAQS).

- Persistent objectionable odors generated by project activities affect surrounding areas.
- Fugitive dust in objectionable quantities escapes the project site or upland disposal site, and affects the surrounding area.

4.1.4.2 Short-Term Impacts

4.1.4.2.1 Dredging Impacts

The primary pollutants associated with dredging include exhaust emissions from fossil-fuel-powered barges or dredging vessels, and hydraulic equipment boats (emitting pollutants such as NO_2, SO_2, CO, VOCs, PM-10, and PM-2.5). Most emission sources during dredging would be mobile and operate intermittently, and large sources of emissions would require a permit under HAR 11-60.1. Dredging equipment would operate in accordance with Federal and State air pollution control and permit requirements. For these reasons, no significant impacts on air quality are expected from dredging equipment.

Odors may result from the dredged sediment, due primarily to the presence of anaerboic bacteria and resulting hydrogen sulfide gas that may off-gas when dredged sediments contact air. Odor is a function of the concentration of odor-causing chemicals, duration of exposure, and the receptors' physio-psychological response to the chemical; odor perception varies widely among individuals. Odor is most likely to result from the stockpile of sediment in the dewatering containment area at the pier. Stockpiling will be temporary, and sediment will be trucked to an upland disposal site as soon as a sufficient amount of water has evaporated or infiltrated to allow its transfer.

Prevailing winds are from the northeast, so any odors from dredged sediment would blow over Sand Island and out to the ocean. During Kona winds, odors may stagnate at the site or be blown inland. The odor may be a temporary nuisance to workers on the site, and possibly to workers in adjacent pier areas or directly across the harbor at Sand Island. If odor is a nuisance to workers, mixing or mechanical processing of drying sediments could be implemented to aerate materials quickly to neutralize odors to reduce the nuisance.

Fugitive dust escapting from the dredged material stockpile or during transfer of sediments to trucks, may result if sediments are allowed to dry completely. Specifications will require the contractor to remove dredged material from the stockpile before complete drying occurs. In the event that sediments become too dry, covering the stockpile area with a silt curtain will allow for evaporation but prevent dust from escaping. In addition, all trucks used to transfer sediments for upland disposal will be covered, in accordance with DOT regulations.

Odors from sediments either of the proposed upland disposal sites (Reef Runway SMF or Nanakuli Landfill) would not be anticipated since once materials have dried, odor should be minimal at most. Processing of sediments will occur at the upland site to stabilize materials for use as fill or cover; this would reduce the possibility of fugitive dust.

4.1.4.2.2 Construction Impacts

Construction-related activities that would generate air emissions include hauling of material and debris, operation of construction and employee vehicles and equipment, and possible emissions of longer duration from trucks delayed in traffic. Open-bed trucks will be covered at all times to prevent airborne dust. An effective dust control plan will be implemented and is expected to include provisions for frequent watering of bare-dirt surfaces and use of wind screens. Landscaping and paving will be done as soon as possible.

No significant impacts from construction activities are expected. All equipment will comply with HAR 11-60.1 which includes securing the appropriate permits based on an evaluation of the stationary source, potential emissions and their potential to cause significant impacts on air quality. HAR 11-60.1 also prohibits the generation of fugitive dusts without taking reasonable precautions (e.g., watering) to limit such emissions.

4.1.4.3 Long-Term Impacts

No significant impacts on air quality will result from Fishing Village operations such as fishing vessel berth-side unloading, commercial and maintenance activities, electrical generation to support these activities, and vehicle trips to the project site. Since all facilities proposed presently operate at Kewalo Basin and at Piers 15-18, 35 and 37, no new regional air emissions would be created.

Emissions from vehicular traffic would be minimal, and would not significantly impact air quality. The volume of traffic to the proposed project site is projected to be fairly low. Approximately 100 to 200 employees, and 30 buyers would commute to the Fishing Village daily. Visitors will arrive primarily by tour bus. Peak hours of operation at the Fishing Village will not coincide with the area's peak traffic volumes. The peak morning traffic on Nimitz Highway east- and westbound occurs from 7:00 a.m. to 8:00 a.m.; afternoon peak traffic occurs between 3:45 p.m. and 4:45 p.m.[1] Employees will arrive prior to 6:00 a.m. and depart after the lunch hour. Visitors will arrive at various times throughout the day. Other traffic to the Fishing Village will not be substantial. By consolidating commercial fishing operations at a single point, current trucking and transport of fish from remote piers to Kewalo Basin will be unnecessary. Reducing the need for trucking from remote locations will result in a net decrease of regional air emissions.

Odor from fish would become objectionable if fish were allowed to spoil and become putrid. Since the stock of fresh fish at the Fishing Village will turn over rapidly, and since fish waste will be disposed of in a timely fashion (collected every day the auction is in operation), objectionable odors are expected to be minimal, and no significant impacts on air quality will occur.[2]

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[1] Julian Ng, Inc. (March 1994) *Traffic Assessment Report, Ala Kawa Street Extension, Honolulu, Hawaii.* Prepared for Castle and Cooke Properties, Inc.

[2] Personal communication with Matt Lyum, Unisyn Biowaste Technology, March 16, 1998.

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CORRECTION

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SEE FRAME(S)
IMMEDIATELY FOLLOWING

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4.1.4.4 Mitigation Measures

Because the proposed project will result in no significant impacts on air quality, no mitigation measures are required.

4.1.5 NOISE

4.1.5.1 Significance Criteria

Noise impacts generated by the proposed project would be considered significant if:

- Aggravating noise levels were experienced at noise-sensitive receptors beyond the project's property boundary. Noise-sensitive receptors are land uses associated with indoor and outdoor activities that would be impacted by noise, such as residences, schools, churches, or hospitals.
- DOH maximum permissible sound levels of noise sources emanating within a specified zoning district or beyond property lines were exceeded. HAR Title 11, Chapter 46, Community Noise Control (September 23, 1996) is applicable to stationary noise sources and equipment related to construction and industrial activities.
- Noise levels for construction activities exceeded the maximum permissible sound levels indicated for more than 10 percent of the time for any 20-minute period. This means that excessive noise sources may not exceed 70 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 70 dBA during nighttime hours (10:00 a.m. to 7:00 a.m.) in industrial zones. The regulation also specifies hours and days when construction activity is allowed (Table 1, HAR 11-46-4).

4.1.5.2 Short-Term Impacts

Dredging and construction activities associated with the proposed project will generate temporary noise impacts in the project area. The proposed construction and dredging activities will not be disruptive as the project area is generally surrounded by industrial uses and already subject to high ambient noise levels and aircraft overflights. Aircraft noise levels in the area have been measured at 65 to 70 Ldn (day-night average sound level).[3]

Construction noise will be short-term and intermittent. The project will include dredging with barge-mounted equipment operating adjacent to the shoreline, operation of heavy equipment such as jack hammers, cranes, and pile drivers, clearing and grading, revetment demolition, and pier and building construction. Construction will occur over a projected two to three year period. No dredging would occur at night. The contractor will comply with applicable regulations for minimizing noise impacts and restrict hours of noise-generating activities.

The closest noise-sensitive receptors to the proposed project are the Kaiulani Elementary School, Kalihi Kai Elementary School, Kalakaua Intermediate School, and Honolulu Community

[3] Wilson Okamoto & Associates (1992) *Final EIS for the Marine Education and Training Center and Public Boat Launch Facility.* Prepared for the State of Hawaii, DBEDT, Honolulu Waterfront Project.

College, all located one-half mile from Piers 36-38. Residential areas are a similar distance from the piers. At this distance, heavy equipment may be audible in the low 60s dBA, which is within the State's maximum permissible sound levels. This estimate is conservative, since it does not take into account the considerable noise-attenuating effects of intervening structures and additional atmospheric attenuation at distances over 500 feet. It is expected that noise levels associated with construction at the site will be within required limits, and thus no significant impacts are anticipated.

4.1.5.3 Long-Term Impacts

Operational noise from the Fishing Village will not result in significant impacts to noise-sensitive receptors and will be typical of the industrial setting. Noise will be generated by vehicular and equipment traffic and machine-power equipment that may be used in the warehouses or alongside the pier. Industrial-type activities are generally compatible with the ambient 70 Ldn noise levels that occur in the area due to aircraft noise. A study by the Federal Aviation Administration (FAA) projects a noise reduction of five dBA in the area by 2007, due to quieter aircraft and more efficient operating procedures.[4] Although industrial-type activities are generally compatible with the current noise levels, the existing noise may impact the proposed tenants' office settings and public retail or restaurant facilities. Potential noise impacts can be reduced by designing enclosed, air-conditioned work and restaurant areas, and by using noise-attenuating building materials such as concrete masonry unit (CMU) construction, metal doors, and double-glazed windows. Vehicular noise generated due to the project will be minimal due to the low speed limits allowed within the project site.

4.1.5.4 Mitigation Measures

Because noise impacts would be less than significant, no mitigation measures are required.

4.1.6 LAND USE

4.1.6.1 Significance Criteria

A land use impact is significant if one or more of the following result:

- Inconsistency or conflict with the environmental goals or objectives of applicable area master plans, including the Oahu Commercial Harbors 2020 Master Plan and Honolulu Waterfront Master Plan.
- Incompatibility with existing on-site or surrounding land uses.

[4] Belt Collins and Associates (1990) *Keehi Lagoon Canoe Competition Center, Keehi Lagoon Park EA.* Prepared for DOT, Harbors Division.

4.1.6.2 Short-Term Impacts

4.1.6.2.1 Dredging Impacts

No land use impacts will result from dredging of approximately 30,998 cubic yards (CY) of material adjacent to the proposed Pier 38 apron construction. This is not a land use change, as the outer Kapalama Basin of Honolulu Harbor has been dredged at various times over the past 55 years.

4.1.6.2.2 Construction Impacts

No significant impacts will result from the proposed project. Construction of the Fishing Village at Piers 36-38 will involve demolition of existing structures and replacement with low-rise industrial warehouses. An apron will be constructed at Pier 38. The proposed construction is consistent with the industrial and maritime nature of the harbor. Existing tenants on the Piers 36-38 project site, currently on revocable month-to-month leases, will be relocated to other suitable locations. The *Oahu Commercial Harbors 2020 Master Plan* specifically recommends relocating and consolidating a commercial Fishing Village on the proposed project site.

4.1.6.3 Long-Term Impacts

Redevelopment of Piers 36-38 into a commercial Fishing Village will not result in any major land use changes. The piers and back-up area are presently used for ship berthing, warehousing, light equipment storage and maintenance, and fuel storage activities. The proposed project will sustain and improve commercial fishing operations. Surrounding freight forwarding and maritime activities are compatible. Therefore, no inconsistency will occur. Discussion of the relationship of the proposed action to government land use policies and plans is found in Chapter 5.

4.1.6.4 Mitigation Measures

No mitigation measures are required because there are no potentially significant land use impacts.

4.1.7 CULTURAL AND HISTORIC RESOURCES

4.1.7.1 Significance Criteria

Evaluation of significant impacts on cultural and historic resources are guided by criteria for establishing eligibility of such resources for listing on the National Register of Historic Places (NRHP), as defined in 36 CFR 60.4, as augmented by the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act (NAGPRA), appropriate State guidelines, and in consultation with the State Historic Preservation Division (SHPD). Impacts on cultural and historic resources would be considered significant if:

- Implementation of the project resulted in any damage, physical alteration, or neglect to an eligible site on the property.

4.1.7.2 Short-Term Impacts

4.1.7.2.1 Dredging Impacts

Dredging adjacent to Pier 38 will not have a significant impact on submerged cultural resources as there are none identified or recorded by the SHPD in the project area. Consultation with the SHPD will be made for identification of any objects recovered during dredging and determination of their historic value, if any.

4.1.7.2.2 Construction Impacts

Impacts to subsurface archaeological resources will not be significant during clearing, excavation, or construction of the proposed buildings, infrastructure, and roadways. The site has been previously developed and cleared. No known archaeological features have been identified on site.[5] SHPD previously commented that because prior construction of existing facilities would have destroyed any historic sites that might have been present, there would be "no effect" on historic sites due to further development of the project area.[6]

The oldest portions of Piers 36 and 37 were constructed in the 1930s. Subdivision improvements on Pier 37 may affect portions of the original structure. Pier 36 will not undergo any physical alteration during the initial phase of the project, but future phases could include construction of an ice house.

Though more than 50 years old, SHPD concurs that Piers 36 and 37 do not meet the criteria to qualify for placement on Hawaii's Register of Historic Places nor for National Register nomination.[7] Therefore, the proposed action will not significantly impact any historic structures on site. No other known historic structures are located on the project site.

Based on previous archaeological reviews conducted in the area, and concurrence by SHPD, there is minimal possibility of discovery new historical or archaeological resources on the project site, which is comprised of filled land and dredged open waters. Based on these findings, further archaeological investigations and construction site monitoring will not be required. In the unlikely event that subsurface archaeological resources are encountered during construction, work shall cease in the immediate area and the SHPD will be notified. In such an instance, following authorization from the SHPD, construction work may be resumed.

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[5] Cultural Surveys Hawaii (February 1995) *Archaeological Survey*, Appendix B of the *Hart Street Wastewater Pump Station Force Main Replacement, Final Environmental Assessment* (October 1996).

[6] DLNR, Board of Land Resources (January 6, 1994) Memorandum addressed to DBEDT: Draft EA Pier 38 Marine Research Facility.

[7] Carol Ogata, DLNR, SHPD. Memo pending to DOT Harbors.

4.1.7.3 Long-Term Impacts

No impacts on archeological or cultural resources are expected to result from operation of the proposed Fishing Village.

4.1.7.4 Mitigation Measures

It is expected that impacts on cultural and historic resources will be less than significant. Therefore, no mitigation measures are required, other than the precautionary measures mentioned above.

4.1.8 VISUAL RESOURCES

4.1.8.1 Significance Criteria

The proposed project would result in a significant aesthetic impact if it would cause either of the following:

- Substantial adverse degradation of the quality of an identified visual resource, including but not limited to unique topographic features, undisturbed native vegetation, surface water and major drainages, and parks or recreational areas; or
- Substantial adverse obstruction of any scenic vista or view visible to the public.

4.1.8.2 Short-Term Impacts

4.1.8.2.1 Dredging Impacts

Since Piers 36-38 and adjacent harbor waters are not currently visible from Nimitz Highway or any major public gathering places, dredging equipment and vessels will not significantly impact any public view. Vessels and dredge equipment will be consistent with the marine industrial appearance of the harbor.

4.1.8.2.2 Construction Impacts

No significant impacts will result from the proposed construction. The pier improvements will not interfere with or obstruct any public scenic views or disturb unique natural features. Building structures will be upgraded low-rise industrial warehouses reminiscent of older pier structures that were built around the harbor prior to the use of pre-engineered all-metal buildings. The building heights will be of similar scale to other buildings around the harbor. While primarily a wholesaling center, the Fishing Village will have a nautical theme that recreates the ambience of a working fish and seafood processing center. The building facades along the public promenade will be active, colorful, and visitor friendly, creating environments comparable to Vancouver's Granville Island, Seattle's Pike Place Public Market, and New York City's South Street Seaport. The State will landscape the parking area adjacent to Nimitz Highway, improving and unifying the Fishing Village streetscape appearance.

4.1.8.3 Long-Term Impacts

The proposed project operations would be consistent with the existing maritime industrial setting and would not significantly change public views or appearance of the harbor.

4.1.8.4 Mitigation Measures

As adverse impacts on visual resources would not be significant, no mitigation measures are required.

4.1.9 HAZARDOUS MATERIALS AND CONTAMINATION

This section addresses impacts of construction on sites containing contaminated soil, groundwater, and sediment at the site, as well as the impacts of storing, using, and transporting contaminated or hazardous materials at or away from the site.

4.1.9.1 Significance Criteria

Significant impacts would occur if:

- Construction/demolition workers were to suffer dermal exposure, inhalation, or ingestion of toxic amounts of hazardous substances originating from materials located on the site.
- Flammable floating product or vapors were exposed to oxygen and an ignition source during construction.
- Contaminated materials were transported or allowed to move offsite, such that the public could be exposed to dermal contact, inhalation, or ingestion of toxic substances, or danger of fire or explosion.

4.1.9.2 Short-Term Impacts

4.1.9.2.1 Dredging Impacts

Dredge crews and upland dewatering/disposal site crews may be exposed to contaminated sediments. While levels of contamination may pose a toxicological hazard to marine organisms, they do not result in the material being categorized as hazardous waste under State and Federal regulations. All dredge work will be performed in compliance with a site-specific Health and Safety Plan, which will identify personal protective equipment and safe practices designed to protect workers from health hazards. Contaminated sediment disposed of at an upland site would be managed in accordance with the disposal site's permit and site-specific Health and Safety Plan.

Use of special equipment during dredging (e.g., use of buckets specially designed to minimize spillage) may be required to better contain contaminated sediments. Through the required Section 401 Water Quality Certification process, DOH will determine if such measures are necessary for maintaining the quality of State waters.

Contaminated sediments to be disposed of at an upland site (either the Reef Runway SMF or Nanakuli Landfill) will first be transferred to a dewatering area on the pier. Dewatering will occur through infiltration and evaporation and no effluent will be allowed to be discharged. Once sufficiently dry, sediments will be transported to the upland disposal site. Transport of the materials will also comply with State and Federal regulations regarding the transport of soils, especially petroleum-contaminated materials. These regulations require controls to prevent material spillage. Management of these materials will comply with the requirements of the site-specific Health and Safety Plans at the project site and at the upland disposal location.

Use of appropriate equipment, compliance with the site-specific Health and Safety Plans, and fulfillment of other permit requirements, as discussed, will assure that no significant impacts from hazardous materials or site contamination will occur during dredging.

4.1.9.2.2 Construction Impacts

If any hazardous substances are present in buildings to be demolished, demolition could result in release and spreading of such contaminants in the vicinity. Excavation equipment could damage or rupture remnant underground storage tanks or fuel lines and, in removing sheet piling, could allow existing contaminated groundwater to migrate to new areas of the site.

Excavation and demolition may also uncover floating product or release flammable vapors. Any exposure to a nearby ignition source, such as a cigarette, sparking steel tool, or combustion engine, could potentially result in a fire or explosion.

All fuel storage tanks, hazardous material (including asbestos building material and lead-based paint), and transformers (potential sources for polychlorinated biphenyls [PCBs]), will be removed from structures planned for demolition to avoid the potential for release of toxic substances. All known utilities will be identified by the demolition and construction contractor and disconnected prior to site work. An initial geotechnical survey has been conducted,[8] and a follow-up study has been completed which fully characterizes the soils and subsurface features on the site.[9] All buried pipelines, or other subsurface features, will be removed or stabilized prior to site work. The contractor will notify TGC prior to construction, to allow for toning of lines.

Site construction and demolition will be performed in accordance with a site-specific Health and Safety Plan. The plan will identify safe working conditions for construction in areas of known flammable products and/or vapor contamination. Safety measures will include proper techniques for monitoring the presence of flammable vapors in the air, response protocol, personal protective equipment, use of allowable tools, and mechanical measures, as appropriate.

The existing regional petroleum contamination is addressed in the design documents and will be incorporated into contract and bid documents. The design and construction will be

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[8] Geolabs-Hawaii (1983) *Preliminary Soil Investigation, Pier 37 Berths, Honolulu Harbor, Oahu, Hawaii.* Prepared for the State of Hawaii DOT, and (1989), *Preliminary Geological and Geotechnical Engineering Reconnaissance Report for the Honolulu Waterfront Master Plan.*

[9] Geolabs-Hawaii (1998) *Draft Geotechnical Engineering Exploration Domestic Commercial Fishing Village Pier and Infrastructure Improvements: Pier 36-38 Honolulu Harbor, Oahu, Hawaii.*

completed in compliance with Department of Health (DOH) *Guidance on Construction Activities Encountering Area-Wide Petroleum Contaminated Soils* and other applicable Federal and State laws and regulations. The contractor shall be responsible for taking the safety, contamination management, and documentation actions required by the DOH Guidance. Compliance with the DOH Guidance involves the protection of workers and public health and safety; immediate notification of the DOH, documentation of the locations of contaminated areas, and proper management of contaminated excavated materials.

It is expected that most of the excavated materials will be returned to trenches and safely covered on-site. However, if some contaminated materials cannot remain on-site, they will be sampled, analyzed, and appropriately disposed of at DOH-approved facilities. Transport of the materials will also comply with State and Federal regulations regarding the transport of hazardous or petroleum-contaminated materials. It is expected that a minimal amount of material will be removed from the property. Disposal of the materials will similarly comply with all State requirements and site-specific permits at the disposal site.

Compliance with the site-specific Health and Safety Plan, DOH Guidance, and other permit requirements, as discussed, will assure that no significant impacts from hazardous materials or site contamination will occur during construction.

4.1.9.3 Long-Term Impacts

Normal operations at the Fishing Village would not expose the public or site workers to hazardous substances. Tenants on the site will be required to inform workers, through regular training sessions and use of operational manuals, about standard procedures for use of all equipment, especially equipment which may contain or use e.g., hazardous materials (fuels, freon, etc.). Training will identify procedures to follow in the event of equipment malfunction or other emergency. Thus, no significant long-term impacts associated with exposure to hazardous materials are anticipated.

4.1.9.4 Mitigation Measures

Compliance with the DOH Guidance and a site-specific Health and Safety Plan, as described above, will assure that no significant impacts will occur as a result of existing contamination on the site. Thus, no further mitigation is required.

4.1.10 CIRCULATION AND TRAFFIC

4.1.10.1 Significance Criteria

The proposed project would result in significant traffic impacts if:

- activities at the Fishing Village caused more frequent traffic delays of longer duration on Nimitz Highway than commonly occur from time to time under existing conditions, or would be expected to occur with the normal trends of increasing development in the project area.

4.1.10.2 Short-Term Impacts

Short term or temporary impacts are expected to occur during construction of the proposed project. These impacts would be associated with heavy trucks and vehicles bringing construction equipment, supplies and materials to the site as well as removing construction debris from the property. These trips would involve slow moving vehicles that could reduce the flow of traffic on selected routes. The number of trips would be distributed throughout the day and may not necessarily occur during peak traffic hours.

During construction, workers would be commuting to and from the project site. The amount of workers will vary depending on the phase of construction. Their commuting times, however, are not expected to have a significant impact on peak hour traffic, since their work schedule is somewhat earlier than the general public.

One of the operations expected in the construction phase of the project is the transportation by trucks of dredged material from the site to either the preferred disposal site at the Reef Runway of Honolulu International Airport, or the landfill in Nanakuli. Approximately 240-350 trips to the disposal site over a 2- to 6-month construction period are projected for this operation. This translates to approximately 1 to 9 trips per day. Since this is a very minor addition to the total traffic on Nimitz Highway and other affected roadways, no significant impacts will occur.

On an adjacent site, the Hart Street Pump Station will undergo improvements involving rehabilitation of pump station facilities and replacement of a force main that will traverse the Fishing Village site. Construction of these improvements will require temporary closure of the interior access connecting the Alakawa Street entrance and *ewa* entrance to the Fishing Village site. The projected construction timetable for the pump station and force main improvements is for the end of 1999 to approximately early 2003. During this period, all traffic associated with the Fishing Village will utilize the *ewa* entrance, while all traffic associated with Pier 34 would utilize the Alakawa Street entrance. Once improvements to the pump station are completed, the Fishing Village will be accessible from the two Nimitz Highway entrances.

4.1.10.3 Long-Term Impacts

The proposed Fishing Village will be comprised of a mix of fishing industry activities including fish wholesalers, auction block operators, and cold and dry storage facilities, as well as commercial and tourism activities, such as retail shops and restaurants. Inasmuch as the final selection of tenants has not been completed, projections on the type and volume of traffic for assessment purposes are preliminary. The projections are based on estimates of employee, business, service, and visitor trips. The estimates consider trip generation factors associated with specific facilities, such as use of light industrial facilities, restaurants, shops, and fish market.

By the end of year 2000, when the proposed facilities on Piers 36-38 are scheduled to be fully occupied and in operation, approximately 6,384 vehicle trips per day (vpd) would be generated from the site. Based on standard trip generation factors, it is estimated that roughly 490 trips would be generated during the morning peak hour and 440 trips during the afternoon peak hour. These volumes represent less than approximately 7 percent of the traffic on Nimitz Highway during each of a weekday's two peak periods. It should be noted, however, that the Fishing Village will have certain characteristics that will result in lower traffic generation. Many

of the workers commuting to and from the site would have an earlier schedule because the industry requires that the staging, auctioning and distribution of fish occur before the outlets and retail markets open for the day. Fishing boats would arrive at the pier as early as 1:00 a.m and through the remainder of the morning. The impact on peak hour traffic by the fishing industry employees, thus, would not be significant.

Traffic generated by visitors and shoppers will occur throughout the day and evening. There may be visitors arriving at the site from the airport during off-peak morning hours before proceeding on to their hotel rooms in Waikiki. Thus, the impact on peak hour traffic by Fishing Village patrons would be small. It is also anticipated that the majority of visitors will arrive by bus, in lieu of individual cars, thus reducing the amount of vehicles entering and leaving the village grounds.

4.1.10.4 Mitigation Measures

Although the anticipated impact on traffic would be small compared with the projected traffic volume from regional generators during the project period, mitigation measures are available to help lessen the traffic impacts of activities at the proposed Fishing Village. These measures include both operational modifications as well as constructed improvements. The least costly measures are operational modifications that entail adjustments in the traffic signalization timing at the project intersections and a ban on left-turn movements from Nimitz Highway into the project site during peak hours. Traffic signalization adjustments may also require adjustments to the traffic lights at the other intersections along Nimitz to assure continuity of traffic flow on the State right-of-way. These various options may be tested and readjusted to achieve optimum operations.

Constructed improvements represent a more expensive approach for mitigation and may require a longer period to implement. The options for constructed improvements are limited, since the two project intersections are already fully developed (in terms of standard full intersections for Nimitz Highway). Possible added improvements include lengthening the left-turn storage lanes on Nimitz and providing a right-turn deceleration lane at the Fishing Village entrances. The latter is an extreme measure considering no other intersection on Nimitz has this roadway feature. Constructed improvements may be used in combination with the operational modifications to increase the efficiency of traffic movement through the intersection.

Realizing that the traffic condition on Nimitz Highway is a regional problem, the State DOT, Highways Division, has long considered improvements to the right-of-way. A recent proposal calls for an elevated highway on Nimitz from the Kalihi interchange to Pacific Street. Community support for the concept, however, was not sufficient and the idea is now temporarily on hold. Meanwhile, an alternative idea is being considered to ban left-turn movements from Nimitz during morning peak hours. This proposal should provide more green-light time for through traffic on Nimitz and consequently more flow through the area. As overall regional traffic continues to increase on the State highway, these and similar options may be further considered by the State. Such improvements would benefit the proposed Fishing Village project as well as other planned developments in central Honolulu.

4.1.11 HEALTH AND SAFETY

4.1.11.1 Significance Criteria

The proposed project would result in significant impacts on emergency services, our public health and safety if it would:

- cause a substantial increase in demand on emergency services and their capacity; require development of new public services beyond those existing or currently planned, or cause an increase in response times for fire protection or law enforcement beyond their respective department standards.
- result in increased exposure of the public to environmental hazards, such as chemical or biological contamination.
- cause higher risk of personal injury among the general public.

4.1.11.2 Short-Term Impacts

Besides the typical hazards present during all construction projects, additional hazards exist on the project site due to soil and/or groundwater contamination which consist primarily of petroleum product contamination (see Section 4.1.9). As such, any subsurface disturbance may create a potentially hazardous situation for workers who may come into contact with exposed soils, shallow groundwater, and floating product. Once disturbed, petroleum contamination, if not properly managed, may cause a potential human health and environmental hazard to the surrounding area, including harbor waters. Because the extent and nature of the subsurface contamination has not been fully characterized at the project site, conservative health and safety measures must be designed to minimize potential hazardous working conditions. Hazards due to petroleum product contamination may include: exposure to toxic and carcinogenic substances (if present), explosive hazards, dermal hazards, and low oxygen levels in low-lying areas or excavations. Special training is required to work in this type of hazardous environment.

An asbestos survey was completed of buildings owned by DOT Harbors Division.[10] The survey included the Pier 36 office and shed for which no asbestos-containing materials were reported. Due to the potential human health hazard posed by asbestos, existing documentation should be reviewed and compared to the existing building inventory to ensure that additional buildings are not present which were not surveyed. If additional buildings exist, an asbestos survey must be completed prior to any demolition or remodeling activities.

Buildings confirmed to contain lead-based paint are present on the project site.[11] Applicable regulations pertaining to worker health and safety and the protection of the environment must be followed to ensure a safe working environment and to protect the surrounding area. A review of existing documentation and a building inventory should be completed to ensure that

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[10] Earth Tech (no date) *Asbestos Survey of Harbor Facilities,* Job No. H.C. 1894. Prepared for DOT Harbors Division.

[11] Earth Tech (no date) *Lead Paint Survey of Harbor Facilities,* Job No. H.C. 1894. Prepared for DOT Harbors Division.

additional buildings do not exist on the site which have not been tested for lead-based paint. If additional buildings exist, then a lead paint survey must be completed prior to any demolition or remodeling activities.

A site-specific Health and Safety Plan will be prepared prior to construction. The contractor is required to comply with all conditions of the Health and Safety Plan, which will ensure that workers will not be exposed to unacceptable safety risks.

Because the proposed project will incorporate the above-mentioned structural and procedural features, no long-term impacts on public health, safety, and security are anticipated.

4.1.11.3 Long-Term Impacts

The proposed project will have no significant impact on emergency services or facilities. Potential impacts on public health, safety and security due to the proposed project are described below:

Visitor Safety. There is potential for injury to visitors if they are allowed to wander into unauthorized areas or are not supervised while on the piers. To prevent injury, public areas have been designated and are separated from the service roadways by chain/bollard barriers along the promenade adjacent to Pier 37. Visitors will not be allowed to walk out onto the service piers. Signs will warn visitors of off-limits areas. Paved areas will be constructed using slip-resistant finishes to prevent accident or injury. Internal roadways and the pier apron will be designed to allow emergency vehicle access.

Worker Safety. Specific concerns for worker safety at the project site may include safe handling and storage of fuel, tools and equipment, as well as accident prevention. Worker safety is regulated by the Occupational Safety and Health Administration (OSHA) and is implemented in Hawaii by Hawaii Occupational Safety and Health (HiOSH) to assure worker safety during daily operations at the Fishing Village.

Security. Existing security fences will be replaced with new fences or screen walls to close off adjacent land. Area lighting will be installed to contribute to safety and enhance security.

4.1.11.4 Mitigation Measures

No mitigation measures will be required as there will be no significant impact on public services, health, or safety due to the proposed project.

4.1.12 UTILITIES

4.1.12.1 Significance Criteria

Impacts on utilities would be significant if:

- development of the project placed an undue load or burden on regional infrastructure, or on water or energy resources.

4.1.12.2 Short-Term Impacts

During construction, it is possible that temporary utility outages (e.g., power, water) may occur when connections to the existing systems are made. Such outages are expected to be rare, and of short duration and will be planned so users may be notified in advance. No other construction-related impacts on existing utilities are anticipated.

4.1.12.3 Long-Term Impacts

Water allocations will be obtained, and adequacy of the existing water system will be determined by the BWS. Electric power will be provided by HECO from their existing power plants and grid. Infrastructure requirements of the Fishing Village are fairly modest, and operation of the proposed Fishing Village is not expected to place any undue demands on existing infrastructure or resources.

4.1.12.4 Mitigation

Utility outages, if and when necessary, will be coordinated with the appropriate utility company or agency so as to minimize the effect of the outage on affected users. No further mitigation is required.

4.1.13 SOCIOECONOMICS

4.1.13.1 Significance Criteria

Socioeconomic impacts would be considered significant if one or more of the following occur because of project development:

- substantial interference with commercial harbor operations.
- disproportionately high and adverse effects on minority and low-income populations.

4.1.13.2 Short-Term Impacts

Dredging, disposal of sediment, and construction activities would occur over two to three years. Workers would be drawn from the existing labor market. Impacts on regional employment would be less than significant due to the relatively small numbers of employees.

4.1.13.3 Long-Term Impacts

No significant impacts are expected on the commercial activities allowed in the harbor. The Harbor Master regulates commercial and recreational vessel activity in Honolulu Harbor.

The commercial fishing industry will benefit from the proposed project. Consolidating commercial fishing operations with the fish auction at Piers 36-38 will improve seafood product

quality as product handling and transport times are reduced. Construction of improved facilities that meet new Federal food handling regulations will allow commercial wholesalers to be in legal compliance, thus avoiding possible fines which might negatively impact their businesses.

No significant impacts on regional employment would occur. Businesses will relocate a short distance from their current locations to the Fishing Village. It is projected that 100 to 200 workers will be employed by various Fishing Village businesses. Employment growth will be less than significant. Workers will be drawn from the existing local labor market and in-migration of additional workers will not occur. Therefore, no impacts on the housing market or regional population will occur.

DOT Harbors Division prepared an internal cost/benefit feasibility study recommending implementation of the proposed project. The analysis projected recovery of development costs in 15 years. It is estimated that lease rental income will contribute $648,000 in the first year of operation after tenant parcel improvements. It is estimated that in fiscal year 5/6, phase one and two rental income will reach $992,700. In addition to rental income, the State will benefit from taxes, and the project will generate additional expenditures, as well as employment opportunities in construction and operations.

It is intended that the Fishing Village marketing efforts tie into DBEDT's current seafood project marketing efforts. It is estimated that retail sales will equal five percent of the total commercial sales at the Fishing Village. Packaged pre-processed fish product will be available for retail sale or shipping to international destinations. One potential target market is to attract Japanese visitors arriving at Honolulu International Airport who are transiting during the early morning to Waikiki hotels.

Since the project site does not lie on ceded lands, no impacts associated with the use of such lands will occur.

No disproportionate impacts on minority or low-income populations are expected to result from the proposed project. No significant changes in the current maritime and industrial use is planned. The State has provided opportunities for community input in the EA process, and ensured that minority and low-income communities have adequate access to public information on the relevant issues.

Socioeconomic benefits of the project may result from the linkages which will be established between the tourism and fishing industries, and increased public awareness of the importance of the fishing industry to the Hawaiian economy.

4.1.13.4 Mitigation Measures

Based on the significance criteria, adverse socioeconomic impacts associated with the proposed project will not be significant. Therefore, no mitigation is required.

4.2 MARINE ENVIRONMENT

4.2.1 HARBOR SEDIMENT AND WATER QUALITY

4.2.1.1 Significance Criteria

An impact would be significant if:

- Hydrological conditions of the project site were altered to the extent that persistent adverse effects on water quality, navigation, or biological conditions resulted.
- State water quality standards or objectives were violated outside a specified discharge mixing zone or immediate construction area.
- A discharge of sediments at the surface of a disposal site, or exposure of sediments at a dredging site, caused substantial toxicity or bioaccumulation of contaminants in aquatic biota.

4.2.1.2 Short-Term Impacts

4.2.1.2.1 Dredging Impacts

The proposed project includes dredging approximately 30,998 CY of material from the edge of Piers 37-38, changing the pierside from a sloping shoreline to a vertical sidewall. This modification to bathymetry would not be significant, as the entire harbor is considered an "artificial basin" which is dredged regularly.

Dredging will not trigger or accelerate destabilization of the shoreline, as sheet piling will be installed prior to dredging.

Dredging will disturb and resuspend contaminated sediments, slightly redistributing them and temporarily increasing turbidity in the vicinity of the piers. This impact on water and sediment quality will not be significant, as large vessel traffic through the harbor regularly resuspends sediments and creates temporary turbidity plumes. Dredging will have the positive impact of removing most of the contaminated sediment in the area.

4.2.1.2.2 Impacts of Dredged Material Disposal

Disposal of dredged material at the South ODMDS is allowed only for materials that have been evaluated for toxicity of contaminants and approved by the EPA and USACE. It is anticipated that approximately 27,479 CY of material will qualify for ocean disposal. No significant impacts would be anticipated at this site through disposal of approved materials.

Dredged materials that have been determined to be unsuitable for ocean disposal, based on recent evaluations,[12] will be dewatered and transferred by truck for upland disposal. An

[12] MEC Analytical Systems, Inc. (May 1998) *Pier 37/38 Port of Honolulu, Hawaii Dredge Sediment Characterization Confirmation Draft Report.* Prepared for Shigemura, Lau, Sakanashi, Higuchi, and Associates.

estimated 3,519 CY of material will be disposed of upland. These materials could be used as fill at the Reef Runway SF or disposed of as Construction and Demolition waste at Nanakuli Landfill. At either location, the material would need to meet requirements of existing permits. Because of the limited access to these sites and the environmental and health and safety controls imposed by existing permit requirements, no significant impacts to the environment would be anticipated.

During dewatering of the dredged materials, the stockpile will be bermed to contain the dredged sediment and water. Dewatering will occur by infiltration and evaporation. No effluent will be allowed to be discharged from the stockpile. In addition, the stockpile area will be covered under the NPDES general permit for construction-related storm water from the site, and BMPs, such as sediment catchment screens, will be used to prevent sediment from entering State waters, as required. Specific BMPs for construction-related storm water will be developed by the contractor to meet State requirements. Because of permit controls, no significant impacts are anticipated due to dewatering of sediments at the site.

4.2.1.2.3 Construction Impacts

Construction activities will disturb sediment newly exposed to harbor waters after dredging. Such sediment is expected to be cleaner than the sediment that will be dredged, and it will not adversely impact harbor water quality.

4.2.1.3 Long-Term Impacts

During the operational phase, there may be routine minor spillage of oil or fuel, and washdown water may carry blood or other organic waste from fish handling and processing areas. Because of the design of the pier, all runoff on the project site will be channeled into trench drains (see Figure 2-3b). As described in Section 2.1.3.3, the trench drain system will incorporate a fox valve switching mechanism which will enable shunting storm water runoff to the harbor, while conducting washdown water and other wastewater into the municipal sanitary sewer system. All stormwater discharges will need to comply with State water quality standards as outlined in HAR Title 11, Chapter 54.[13] Compliance will assure that no significant impacts will occur to water quality in the harbor.

As with all harbor operations, the potential exists for hazardous materials such as fuels and oils to spill into the harbor from ships and heavy equipment. The U.S. Coast Guard is the regulatory agency for any petroleum spills into navigable waters that form a sheen on the water. Ships and harbors have existing standard operating procedures for dealing with hazardous materials spills. Response varies depending upon the extent of the problem. Small spills usually require the use of booms and sorbents around the affected area. Larger incidents usually require the use of spill response contractors who are hired for emergency response and specialize in harbor situations. Because of the response capabilities in place, no significant impacts are expected to occur as a result of routine operations at the Fishing Village.

[13] NPDES permit(s) for industrial storm water discharge may be required.

4.2.1.4 Mitigation Measures

Dredging impacts will be minimized by implementing BMPs identified as part of the conditions of the Section 401 Water Quality Certification. The BMPs will be incorporated into the contract specifications. Slope destabilization will be avoided by installation of sheet piling prior to dredging. Turbidity associated with dredging will be kept to a minimum through application of appropriate BMPs.

Any adverse impacts from construction will be mitigated by applying the required BMPs. No further mitigation measures are required or proposed.

4.2.2 SHORELINE

4.2.2.1 Significance Criteria

Impacts of the proposed action on the shoreline would be judged significant if:

- The impacts caused a change in water current patterns, erosion, or accretion so as to alter existing ocean bottom or natural shorelines or cause damage to existing shoreline improvements.

4.2.2.2 Short-Term Impacts

Alterations to ocean bottom contours will occur during construction. However, these alterations are intentional and are required for implementation of the proposed improvements. All activities will be conducted in an artificial basin. Thus, no adverse impacts are anticipated.

4.2.2.3 Long-Term Impacts

The placement of a sheet-pile bulkhead along the shoreline could potentially result in reflection of wave energy. Due to the relatively calm conditions prevalent in Honolulu Harbor, this effect is not considered significant. Furthermore, no natural beaches are located adjacent to the proposed project site, so no changes in shoreline due to changing patterns of sediment erosion or accretion are expected to occur as a result of altered wave patterns along the shore.

4.2.2.4 Mitigation

Because no significant impacts to shoreline features are expected, no mitigation to protect shoreline is required.

4.2.3 MARINE BIOLOGY

4.2.3.1 Significance Criteria

Impacts of the proposed project on marine biology would be considered significant if:

- The impact resulted in substantial adverse effects on any rare, threatened or endangered plant or animal species, including State or Federally listed, proposed, or candidate species, or destruction or adverse modification of critical habitat.
- The impact caused the loss or degradation of commercially important fisheries resources.
- The impact would involve the loss or long-term degradation of a sensitive habitat, such as coral reefs or sea grass beds.
- There would be interference with the movement of resident or migratory fish and wildlife.
- The impact would violate local, State, or Federal law with respect to the protection of biological resources.

4.2.3.2 Short-Term Impacts

The proposed action will occur in an area that has already been subjected to significant prior disturbance. Some isolated corals may be damaged during construction, but the existing coral fauna is quite limited, and no long-term degradation of any significant coral reef habitat is expected to occur as a result of dredging or other construction activities. Green sea turtles and humpback whales have rarely been sighted in the harbor, and it is considered highly unlikely that either species would closely approach the project site, especially while construction activities are ongoing. In the very unlikely event that any protected species (green sea turtles or humpback whales) should enter the work area during construction, work shall cease until the animal(s) leave the area, or until representatives of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) have been notified, and have given guidance as to an appropriate further course of action.

No significant impacts are expected to occur at the South Oahu ODMDS as a result of ocean disposal associated with this project. The South Oahu ODMDS has undergone extensive study to assess the potential biological and ecological impacts of such disposal activities, and, assuming the sediments meet the defined chemical criteria, disposal would be permitted by EPA.

4.2.3.3 Long-Term Impacts

The operation of the Fishing Village will not have any significant adverse impacts on endangered species, habitats, commercial fisheries resources, or movement of fish and wildlife, and therefore, no violations of existing local, State, or Federal laws concerning biological resources are expected to occur.

4.2.3.4 Mitigation

No mitigation is required to compensate for impacts on marine biota, since no such impacts are anticipated.

4.2.4 HARBOR OPERATIONS

4.2.4.1 Significance Criteria

Impacts of the proposed project on harbor operations would be considered siginificant if:

- construction activities within the harbor, or movement of vessels during operation of the proposed project, interfered with normal shipping operations and boat traffic in the harbor

4.2.4.2 Short-Term Impacts

The implementation of the proposed project will likely require the use of barge-mounted equipment for dredging, and barges will be used to transport loads of sediment from the project site at Pier 38 to the South Oahu ODMDS. The movements of these vessels, both in and around the project site, and during entry and exit from the harbor, will be cleared with and approved by the Harbor Master, as required. Thus no significant short-term impacts on normal harbor operations are anticipated.

4.2.4.3 Long-Term Impacts

The operation of the Fishing Village will require daily entry and egress of fishing vessels to and from the harbor, and tying-up of vessels at Pier 38. The number of fishing vessels that will be involved in these movements is expected to remain relatively similar to the number of vessels presently engaged in similar operations. All movements of fishing vessels will be cleared with and approved by the Harbor Master, as required. Thus no long-term inpacts on harbor operations are expected to occur.

The cumulative impacts of the operation of the Fishing Village project, in combination with other planned projects in Honolulu Harbor, are discussed in Section 4.3.5.

4.2.4.4 Mitigation

Because movements of vessels for the Fishing Village project, during both the construction and operational phases, will be coordinated through the Harbor Master, as required, no significant impacts are anticipated, and no further mitigation is required.

4.3 CUMULATIVE IMPACTS

Potential cumulative impacts of the proposed project exist with respect to the following issues: soil and groundwater, harbor sediments and water quality, disposal of dredged sentiments, circulation and traffic, and other planned projects in Honolulu Harbor. These potential cumulative impacts are discussed in the subsections below. No other potential cumulative impacts of the proposed project have been identified.

4.3.1 SOIL AND GROUNDWATER

The DOT Harbors Division, in association with several private parties, is investigating area-wide soil and groundwater contamination at Honolulu Harbor Piers 16 through 38, including the proposed action site. The area will eventually be subject to selective remediation that is likely to include removal of any floating product or other contaminants which are currently able to migrate from location to location. This cleanup will have a cumulatively positive impact on the area.

4.3.2 HARBOR SEDIMENTS AND WATER QUALITY

Cumulative Impacts relating to sediments and water quality would be generated as a result of construction and operational impacts of the proposed project, in combination with other ongoing activities in the harbor.

The project area is located within a highly industrialized area of Honolulu Harbor. The harbor is in a degraded condition with respect to water quality. Water quality monitoring conducted at various localities within the harbor has indicated values in exceedance of allowable levels for turbidity, ammonia, chlorophyll a, and phosphorus.

Boats moving through shallow-water areas of the harbor regularly churn up sediments, especially when executing turning maneuvers. Maintenance dredging carried out at regular intervals also results in frequent disturbance of bottom sediments. Given that such activities already cause regular resuspension of sediments in the project area, and on a much larger scale than contemplated for the proposed project, cumulative impacts are not expected to be significant.

4.3.3 DISPOSAL OF DREDGED SEDIMENTS

4.3.3.1 Upland Disposal

Cumulative impacts would be related to the need to dispose of dredged sediment from other Oahu dredging projects. The Reef Runway SMF may be selected as the preferred disposal site for sediments dredged from the Ala Wai Canal and Pearl Harbor maintenance dredging projects. Because the Reef Runway SMF has finite capacity as a site for disposal of dredge material, cumulative impacts might arise if demand for disposal volume exceeded the capacity of the available disposal sites in the state to accommodate all dredge material. However, the amount of the dredge material resulting from the proposed action, which is being designated for disposal at the Reef Runway, is extremely small (approximately 3,519 CY) relative to the total capacity of the site (in excess of 200,000 CY), and thus cumulative impacts are not considered significant.

4.3.3.2 Ocean Disposal

Cumulative impacts would be related to disposal at the South Oahu ODMDS of dredge sediments from other dredging projects. Since all ocean disposal activities at the site require a permit from the USACE, with concurrence from the EPA, a record of cumulative disposal activities is available and can be readily monitored. Management of the site by the EPA assures

that, if a proposed action were likely to cause significant cumulative impacts, EPA concurrence would not be granted, and the permit for ocean disposal would be refused. Thus, if permitted, no significant cumulative impacts would be expected to result from this proposed action.

4.3.4 CIRCULATION AND TRAFFIC

Cumulative impacts on circulation and traffic relate to general development in the project area which might lead to increased traffic. Future projects which may affect traffic are described in Section 3.1.9.3. Estimating the cumulative impact and anticipated traffic from these projects will be difficult, but the trend shows that further growth will occur around the downtown area and that this growth translates into further traffic increases. Moreover, since Nimitz Highway is a major right-of-way, it is anticipated that this artery will be one of the primary routes in town for the transportation of goods and services. The proportionate contributions to traffic increases resulting from the proposed project are relatively minor, when viewed in the context of the projected trend of development along the Nimitz corridor. As described in Section 4.1.11.4, the State is studying various alternatives to adequately address and mitigate the cumulative impacts of development on traffic and circulation in the area from the airport to Waikiki. It is expected that one or more of the feasible options under consideration will be implemented as needed to minimize traffic problems.

4.3.5 OTHER PROJECTS IN HONOLULU HARBOR

The Harbors Division is processing the Oahu Commercial Harbors 2020 Master Plan Environmental Impact Statement (EIS). The EIS will address the cumulative effects (climate, tsunami, topography and soils, surface hydrology, drainage, flood hazards, groundwater, coastal water, terrestrial biology, threatened and endangered species, hazardous and solid waste materials, traffic, noise, vibration, air quality, archaeological, historic and cultural characteristics, recreation, visual, impacts to scenic vistas and viewplanes, socio-economic conditions, water supply, wastewater, power and communications, energy consumption, environmentally-sensitive areas) of the projects planned for construction within the next five years. These projects include: the Cruise Passenger Terminal at Pier 2; Construction of Piers 12-16; the Excursion Vessel Terminal at Piers 24-27; Lay Berths in Keehi Lagoon; General Cargo Yard at Piers 19-20; Neobulk Cargo Yard at Piers 31-34; Excursion Vessel Accommodations at Piers 5-7; and Extension of Bunker Fuel Lines at Piers 28-29.

Environmental studies of projects which are currently under construction or which will begin before the EIS is completed will be incorporated by reference into the EIS. These projects include: the domestic commercial Fishing Village at Piers 36-38; Inter-Island Cargo Yard at Piers 39-40; and Barbers Point Deep Draft Harbor Expansion and Related Improvements. If required, additional environmental studies will be conducted to address any cumulative, significant effects that future harbor projects may have with respect to the ongoing projects.

The EIS will also incorporate the environmental studies conducted by McCabe Hamilton & Renny for their Maritime Office Building at Pier 23 and the Corps of Engineers for their dredging of Keehi Lagoon.

The completion of the 2020 Master Plan EIS will ensure that all potential cumulative impacts of development projects in Honolulu Harbor have been adequately considered.

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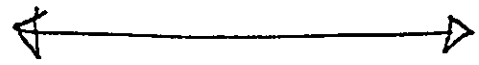

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5. CHAPTER FIVE- CONTEXTUAL ISSUES

This section reviews the relationship of the proposed action to Federal, State, and City and County of Honolulu land use and environmental goals, objectives, plans and regulations. An assessment is then made of the project's consistency with these public policies and what permits and approvals will be required to implement the proposed improvements.

5.1 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The State will not collect lease rents on Piers 37 and 38 during the 3-year construction period. Similarly, Pier 36 improvements (as part of a future phase) would not generate revenues during construction. Alternate berths for short-term use by commercial fishing vessels will be available at other areas throughout Honolulu Harbor. Current land-based tenants have made arrangements for relocation. The new Fishing Village facilities will expedite fish catch unloading, processing, handling and transport, assisting the commercial fishing industry in meeting new Federal food handling guidelines. The State will collect higher lease revenues for use of the property upon completion of construction, and the local visitor industry will benefit from the additional revenue and employment opportunities offered by a new visitor attraction.

5.2 RELATIONSHIP TO GOVERNMENT REGULATIONS AND REQUIREMENTS

5.2.1 FEDERAL LAND USE POLICIES, PLANS, AND CONTROLS

Most of the land use policies, plans and controls that affect the proposed action are within State and local jurisdiction. A few programs are administered by the Federal government and are described in the following sections.

5.2.1.1 Protection of Water Resources

5.2.1.1.1 Clean Water Act

Section 404 CWA Discharges to Navigable Waters of the U.S.

The Clean Water Act (CWA), Section 404, defines requirements for discharges of dredged or fill materials in "waters of the United States" and sets limits on such discharges. Permit approval is through the U.S. Army Corps of Engineers (USACE). The "Excavation Rule" was established jointly by USACE and the U.S. Environmental Protection Agency (EPA) (33 CFR 323.2 of 25 August 1993) to also regulate removal of material from waters of the United States because the agencies considered the "incidental fallback" accompanying such activities to be a "discharge" under Section 404. However, according to 33 CFR 232.2 (d)(3)(ii), a Section 404 permit is not required for any incidental movement of dredged material occurring during normal dredging operations, defined as dredging for navigation in navigable waters of the United States. Since the movement of dredged material for the proposed action will occur within the navigable waters of Honolulu Harbor and is for the

purposes of navigation, the conditions of Section 404 of the CWA do not apply.[1] The paving over of an abandoned drainage ditch on the site will require filling of some 50 CY of clean inert fill material in waters of the U.S. This component of the proposed action is subject to authorization under Section 404.[2]

Section 401 CWA Water Quality Certification

Since a CWA, Section 404 permit is required for this project, a CWA, Section 401, Water Quality Certification (WQC) is also required. Under the Federal CWA and Hawaii Revised Statutes (HRS) Chapter 342D, along with their supporting rules in Hawaii Administrative Rules (HAR) 11-54, this certification is required for activities when proposed construction or operation may result in discharges to State waters. In Hawaii, the Department of Health (DOH) is the agency with authority for project review and issuance of the WQC.[3]

Section 402 CWA NPDES Permit

Discharges of point sources of pollutants into surface waters of the U.S. are controlled under the National Pollutant Discharge Elimination System (NPDES) program, pursuant to CWA, Section 402. The DOH, under HAR 11-55, administers the NPDES program. In Hawaii, NPDES permits are available under General or Individual categories. General Permits are available for activities that meet specific criteria, such as construction-related storm water discharges, hydrotesting, and construction dewatering. The Individual Permit has greater flexibility, but involves a longer process, which includes Public Notice of permit application.

Separate Notices of Intent (NOIs) are required for NPDES General Permit coverage for discharges to surface waters of construction-related storm water from sites sized 5 acres or greater, hydrotesting, or dewatering. Discharge of dewatering effluent associated with dewatering dredged sediment would require NPDES permit coverage as well. The NOI submitted with the NPDES permit application requires development of a Best Management Practices plan, in accordance with HAR 11-55. Discharges for hydrotesting, dewatering and storm water associated with construction activity under the proposed project will require NPDES permit approvals from DOH.

5.2.1.1.2 Marine Protection, Research and Sanctuaries Act of 1972

Section 103 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 (33 U.S.C. 1413) authorizes the USACE to issue permits for the transportation of dredged material for the purpose of dumping in ocean waters. Section 103 prohibits disposal activities that would unreasonably degrade or endanger human health or the marine environment. The EPA and USACE have joint authority for regulating ocean disposal of dredged material and

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[1] The USACE was requested to provide a jurisdictional determination regarding the applicability of Section 404 to the proposed project. USACE has indicated that the dredging portion of the action is not subject to authorization under Section 404, since it is being conducted for the purposes of navigation in navigable waters of the U.S. (Personal communications with Alan Everson, USACE, Fort Shafter, Hawaii, May 14, 1998 [Memo pending]).

[2] An application for an individual permit has been filed with USACE, under various authorities (Section 404, CWA; Section 103, MPRSA; Section 10, RHA). The project has been assigned File No. 900000192.

[3] An application for a Section 401 Water Quality Certification has been filed with DOH (memo dated June 5, 1998).

for managing ocean dredged material disposal sites (ODMDSs) in the Hawaiian Islands. One of these sites, the South Oahu ODMDS, is the preferred disposal site for dredged materials resulting from the proposed action. Under MPRSA, Section 103, the USACE, with input from the EPA, has the authority to issue permits for ocean dumping. The ocean disposal of dredged materials generated by the proposed action will therefore require a USACE permit under Section 103.[4]

5.2.1.1.3 Rivers and Harbors Act

The Rivers and Harbors Act (RHA), Section 10, requires issuance of a USACE permit for any activity that obstructs or alters navigable waters of the U.S., or modifies the course, location, condition, or capacity of any port, harbor or refuge, or enclosure within the limits of any breakwater or of the channel of any navigable water. A USACE permit under Section 10, Rivers and Harbors Act, will be required for the proposed action.[5]

5.2.1.2 Protection of Cultural Resources

5.2.1.2.1 National Historic Preservation Act

Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations (36 CFR 800), are intended to provide for the protection and use of historic properties for the benefit of the public. The State Historic Preservation Division (SHPD) of the State Department of Land and Natural Resources (DLNR), acting as the reviewing agency, oversees the historic preservation compliance process. The SHPD determines whether any historic sites exist and their historical significance. Working with the developing agency, a proper mitigation commitment is designed, as necessary. Piers 36 and 37 are "historic" structures (over 50 years old). However, neither of the piers have been designated for listing on the National Register of Historic Places and previous archaeological studies have not revealed any other significant historic sites in the area.

5.2.1.2.2 Native American Graves Protection and Repatriation Act

As required, the project will be conducted according to the Native American Graves Protection and Repatriation Act (NAGPRA). Passed by Congress and signed into law in 1990, NAGPRA is intended to protect Native American (including native Hawaiian) burial sites. NAGPRA sets guidelines for the removal and subsequent repatriation of human remains and associated burial objects on Federal, Indian, and native Hawaiian lands. NAGPRA requires consultation with native Hawaiian organizations, including the Office of Hawaiian Affairs, *Hui Malama I Na Kupuna 'O Hawaii Nei*, and the Oahu Burial Council (State Historic Preservation Division, DLNR) if Hawaiian burials are encountered.

5.2.1.3 Protection of Endangered Species

Endangered Species Act and Marine Mammal Protection Act

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[4] An application for an individual permit has been filed with USACE. The project has been assigned File No. 900000192.

[5] An application for an individual permit has been filed with USACE. The project has been assigned File No. 900000192.

The Endangered Species Act of 1973 and the Marine Mammal Protection Act of 1972 require that actions not jeopardize the continued existence of endangered or threatened marine and terrestrial plant and animal species. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over endangered and threatened terrestrial flora, terrestrial fauna, and birds. The National Marine Fisheries Service (NMFS) has jurisdiction over marine mammals and fishes. The two agencies share responsibility for listed (threatened or endangered) sea turtles. While protected marine species have occasionally entered Honolulu Harbor, it is not expected that any significant marine impacts to such species will result from the proposed project, and no consultations with the affected agencies will be required.

5.2.1.4 Coastal Zone Management

Coastal Zone Management Act

The Coastal Zone Management (CZM) Act of 1972 (P.L. 92-583) is administered in Hawaii by the Office of Planning of the Department of Business, Economic Development, and Tourism and affects projects that require Federal permits, including USACE permits (discussed above).[6] The CZM program objectives and policies are to provide recreational resources; protect historic, scenic, and coastal ecosystem resources; provide economic uses; reduce coastal hazards; and manage development in the coastal zone. The entire Island of Oahu is within the coastal zone area affected by the CZM Act. A consistency determination of 'no effects' is required under the CZM program and is being sought from the Office of Planning.[7]

5.2.2 STATE LAND-USE POLICIES, PLANS, AND CONTROLS

5.2.2.1 State Permit for Work in Ocean Waters

The Hawaii Department of Land and Natural Resources (DLNR) has jurisdiction over work in ocean waters and submerged State lands. The execution of a pending Executive Order, however, will place jurisdiction of the Honolulu Harbor waters under the Harbors Division of the State Department of Transportation. Any actions by the Harbors Division within these waters will therefore not require BLNR approval. Users and tenants of Honolulu Harbor who may be affected by construction of the proposed project would be notified by the State Harbors Division.

5.2.2.2 DOH Permit by Rule

Management of sediments for upland disposal requires that the following considerations be met prior to placement:

- Material must be tested for hazardous constituents, under requirements specified in the Resource Conservation and Recovery Act (RCRA), and outlined in 40 CFR Part 261, Toxicity Characteristic Leaching Procedure (TCLP). If test results show material is hazardous, it must be disposed of as a hazardous waste and cannot be placed at an upland site in Hawaii.

[6] State of Hawaii (April 1985) *Hawaii Coastal Zone Management Program, Federal Consistency Procedures Guide.*

[7] Memo dated June 10, 1998.

- If TCLP results are negative, the material may be considered 'inert fill', 'inert waste', or 'solid waste'. Disposal is regulated by the DOH Office of Solid Waste Management (OSWM), as defined in HAR 11-58.

The DOH, OSWM may require a Permit by Rule (HAR 11-58.1-04) for the processing and placement of dredged sediments at an upland site. A Permit by Rule may be issued with the following conditions:

- Written notification of activity 30 days prior to commencement,
- No hazardous waste may be accepted,
- Nuisance controls, fire prevention and emergency response plans are developed,
- The facility is secured and supervised, and
- An annual report is submitted to the Director of Health.

5.2.2.3 State Land Use Law

The State Land Use Law, enacted in 1961, resulted in the classification of all State lands into four categories: Urban, Conservation, Agricultural, and Rural. The proposed action involves activity on two land classes – Urban and Conservation. Land uses within the Urban District are regulated by the City and County of Honolulu through the Land Use Ordinance. The State Department of Land and Natural Resources regulates land uses in the Conservation District.

Piers 36-38 are located within the Urban District. The proposed Fishing Village facilities are permissible within this State land use district. The waters of Honolulu Harbor, notably, are located within the State Conservation District which is administered by the State Board of Land and Natural Resources. The Harbors Division has an existing Conservation District Use Permit from the BLNR for any maritime construction activities in the harbor which would allow the proposed Fishing Village to proceed with its proposed construction plans.

5.2.2.4 Hawaii State Plan

The purpose of the Hawaii State Plan, Chapter 226, HRS (1995), is to provide a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of State and County plans, policies, programs, projects, and regulatory activities; and establish a system for plan formulation and program coordination to provide for an integration of all major State and county activities. Sections of the State Plan's overall theme, goals, objectives, and policies, along with Priority Guidelines that relate to the proposed action, are identified in the following paragraphs.

Part I – Goals, Objectives, and Policies

SEC. 226-8 Objectives and policies for the economy – visitor industry.

b)(1) Support and assist in the promotion of Hawaii's visitor attractions.

SEC. 226-10 Objective and policies for the economy—potential growth activities.

(a) Planning for the State's economy with regard to potential growth activities shall be directed towards achievement of the objective of development and expansion of potential growth activities that serve to increase and diversify Hawaii's economic base.

(b) To achieve the potential growth activity objective, it shall be the policy of this State to:

Facilitate investment and employment in economic activities that have the potential for growth such as diversified agriculture, aquaculture, apparel and textile manufacturing, film and television production, and energy and marine-related industries.

(5) Promote Hawaii's geographic, environmental, social, and technological advantages to attract new economic activities into the State.

(7) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.

SEC. 226-11 Objectives and policies for the physical environment land-based, shoreline, and marine resources.

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.

(2) Effective protection of Hawaii's unique and fragile environmental resources.

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.

(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

(3) Take into account the physical attributes of areas when planning and designing activities and facilities.

(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.

(8) Pursue compatible relationships among activities, facilities, and natural resources.

(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.

Part III - Priority Guidelines

SEC. 226-103 Economic priority guidelines.

(a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:

(1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.

(A)(iv) Reinvest in the local economy.

(6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawaii's small-scale producers, manufacturers, and distributors.

10(b)(4) Encourage visitor industry practices of activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.

The proposed action will result in both direct and indirect effects that will support the State's broad objectives and specific policies identified above. Specifically, the proposed action is anticipated to increase and diversify the State's economic base through upgrading and consolidating facilities at Piers 36-38 to support the domestic commercial fishing industry, ensuring compatible maritime use at Honolulu Harbor, and providing a unique visitor attraction.

5.2.2.5 State Functional Plans

State functional plans, as specified in Section 2 of the State Plan, include the policies, programs and projects designed to carry out the objectives of a specific field of activity when such activity or program is proposed, administered, or funded by any agency of the State. The functional plans were reviewed to determine the relationship of the proposed action to each of their administrative areas of responsibility. Parts of those plans that have direct relevance to the proposed action are presented in the following sections.

State Conservation Lands Functional Plan (1991)

The objective of the State Conservation Lands Functional Plan is to provide for a management program allowing for judicious use of the State's natural resources balanced with the need to protect these resources to varying degrees. Objectives and policies that could be affected by the completion of the proposed action are presented below.

Objective IIE: Promotion and marketing of appropriate natural resources designated for commercial development.

Policy IIE(4): Assist the fishing industry to develop new markets and improve production and processing of fishery products.

The proposed Fishing Village facilities will be designed to comply with Federal food handling regulations. Consolidating the vessel off-loading, fish auction, and wholesalers at a central location will improve product quality, and the industry will be able to promote a higher-grade product.

5.2.2.6 Waterfront Master Plan and Harbors 2020 Plan

Both the *Honolulu Waterfront Master Plan* and *the Oahu Commercial Harbors 2020 Master Plan* support the proposed Fishing Village. The *Honolulu Waterfront Master Plan* represents a comprehensive, long-range vision for integrating and maximizing public benefits associated with improving State-owned land along the waterfront. The Fishing Village, identified in the plan, was envisioned to be a part of new commercial redevelopment at Kewalo Basin, featuring commercial fishing berths and a variety of retail shops, outdoor cafes, restaurants and tourist-related attractions.

In response to declining financial support for non-maritime development of lands surrounding Honolulu Harbor, the *Oahu Commercial Harbors 2020 Master Plan* focuses on the needs and projected growth of the maritime community. The *2020 Master Plan* is a flexible planning document to guide general long-range use of commercial harbor development. The Plan acknowledges HCDA's goal to gradually transition Kewalo Basin to ocean-based tourist activities. Existing commercial fishing would be relocated to Honolulu Harbor and Keehi Lagoon, with development of a domestic commercial Fishing Village at Pier 36. Increased demand for additional space has led to the expansion of the concept to include Piers 36-38 as the site for the proposed action.

5.2.3 CITY AND COUNTY OF HONOLULU LAND-USE PLANS, POLICIES, AND CONTROLS

The City and County's land use plans, policies, and regulations are encompassed in the General Plan, Development Plans, Land Use Ordinance, Special Management Area Rules and Regulations, and Shoreline Setback Regulations. The proposed action's relationship to these plans, policies, and regulations are described below.

5.2.3.1 General Plan

The General Plan (1992) establishes the City and County of Honolulu's long-term objectives and policies. These objectives tend to be broad in scope; land use policies in subsequent Development Plans provide more specific policies to achieve the General Plan objectives. General Plan objectives and policies that may relate to the proposed action are presented in the following paragraphs.

II. Economic Activity:

Objective A: To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.

Policy 2: Encourage the development of small businesses and larger industries which will contribute to the economic and social well-being of Oahu residents.

Objective D: To make full use of the economic resources of the sea.

Policy 1: Assist the fishing industry to maintain its viability.

Policy 2: Encourage the development of aquaculture, ocean research, and other ocean-related industries.

VII. Physical Development and Urban Design

Objective A: To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

Objective B: To develop Honolulu, Aiea, and Pearl City as the island's primary urban center.

Policy 8: Foster the development of Honolulu's waterfront as the State's major port and maritime center, as a people-oriented mixed use area, and as a major recreation area.

Policy 10: Establish a review process to evaluate the design of major development projects.

The proposed project will assist local businesses in complying with Federal food handling regulations and upgrading their operations. As a maritime industry, the Fishing Village will be a complementary development at Piers 36-38 at Honolulu Harbor, as recommended in the State's Harbors 2020 Master Plan. Tenant facilities will be required to follow design guidelines and will be subject to review and approval by the State Department of Transportation, Harbors Division.

5.2.3.2 Development Plan

Pursuant to Chapter 226, HRS, each County within the State of Hawaii is mandated to carry out the Hawaii State Plan through the adoption and use of a County General Plan. Development Plans (DPs) have been established to provide land use controls designed to implement the objectives and policies of these General Plans and to provide guidance for more specific zoning and density regulations. The Oahu DP consists of two main sections: the Common Provisions that are common to all of Oahu's DPs, and the Special Provisions that vary depending upon the location of the area of concern. The DPs are relatively detailed guidelines for physical development on Oahu.

The site of the proposed action is on land designated as Public Facilities. The proposed action is consistent with this land-use designation.

5.2.3.3 Land Use Ordinance

Piers 36-38 are located within the I-3 Waterfront Industrial zone. All improvements within this district are subject to review by the City Department of Land Utilization. In accordance with the Land Use Ordinance of the City and County of Honolulu, the proposed Fishing Village is a permitted use within this zone. Additionally, Chapter 266-2, Hawaii Revised Statutes states that all harbor improvements, including any maritime facilities constructed by

the State Department of Transportation, are exempted from City and County zoning regulations.

5.2.3.4 Special Management Area (SMA)

The shoreline is located along the *makai* boundary of Sand Island. The *mauka* boundary of the SMA is located on the inland boundary of the island, therefore Piers 36-38 are not situated in the SMA and are not subject to the Rules and Regulation of the SMA of the City and County of Honolulu.

5.2.3.5 Shoreline Setbacks

The project site is not located within 40 feet of the certified shoreline and is therefore not subject to the shoreline setback regulations of the City & County of Honolulu. (The certified shoreline for the project site coincides with the *makai* shoreline of Sand Island.)

5.2.4 SUMMARY OF LAND USE AND ENVIRONMENTAL PERMITS AND APPROVALS

Federal, State, and City and County land use and environmental permits and approvals are discussed above. Those that are required for the proposed project are summarized in Table 5-1. While this list is comprehensive, it is not intended to be exhaustive of all required permits and agency approvals; the design consultant and construction contractor will be responsible for identifying and obtaining the necessary construction permits and approvals.

Table 5-1 Summary of Required Environmental Permits and Approvals (Construction Permits and Approvals Not Included)

Permit/Approval	Administering Agency
FEDERAL	
Department of the Army Permit	Corps of Engineers
EPA Review of Off-shore Disposal	Environmental Protection Agency
STATE OF HAWAII	
Chapter 343, HRS, Environmental Review	Office of Environmental Quality Control
Section 401 Water Quality Certification	Department of Health
NPDES Permit	Department of Health
Coastal Zone Management Consistency Determination	Office of Planning

6. FINDINGS AND DETERMINATION

6.1 SIGNIFICANCE CRITERIA AND FINDINGS

According to the Department of Health Rules (§11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, and the project's expected consequences, both primary and secondary, cumulative impacts with other projects, and short- and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one (or more) of these significance criteria.

For each of the significance criteria, listed below, a brief summary of findings is provided.

*(1) **Involves an irrevocable commitment to loss or destruction of any natural or cultural resources:***

The project site does not contain any substantial natural resources, but rather, is an industrial area built on filled land which is generally in a condition much altered from its original natural state.

While several areas of the pier structures on the project site are over 50 years old, according to SHPD, none of these qualifies for placement on the National or Hawaii Registers of Historic Places. It is considered unlikely, given the history of prior disturbance on the site, that any subsurface archaeological resources will be disturbed as a result of new construction. Should inadvertent discovery of any archaeologically significant artifacts, bones, or other remains occur during construction, their treatment will be in strict compliance with the requirements of the SHPD.

*(2) **Curtails the range of beneficial uses of the environment:***

The project site has a long history of development and prior use. Much of the site at present is vacant, unused land. The development of the site for the proposed Fishing Village is consistent with ongoing activities in Honolulu Harbor, and will result in an increase of the range of beneficial uses of the site, which will include, among others, support of local business enterprises, supply of food to the consumer market, and tourism.

*(3) **Conflicts 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 Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

(4) ***Substantially affects the economic or social welfare of the community or State:***

By consolidating operations within Hawaii's domestic commercial fishing industry at one location, the proposed project will streamline operations, encourage economic efficiencies, and potentially enable local fishing businesses to operate more profitably. By providing a "showcase" for the fishing industry, the Fishing Village will provide an added attraction for tourists visiting the State. Also, the general public will become more knowledgeable about the importance of the industry. Thus it is expected that a variety of economic and social benefits will accrue to the State and its residents through implementation of the project.

(5) ***Substantially affects public health:***

By improving fish processing and minimizing handling time, a fresher fish product will be brought to market. Thus the effects of implementing the proposed project are expected to result in an overall beneficial effect on public health in the State.

(6) ***Involves substantial secondary impacts, such as population changes or effects on public facilities:***

The proposed project, being of relatively small scale, will not require an influx of new workers, or cause any other changes in resident population. The infrastructure requirements of the project will not place undue demand on existing system capacities, or on the water and energy resources of the State.

(7) ***Involves a substantial degradation of environmental quality:***

The land and water environments on and in the vicinity of the project site have been subjected to extensive prior alteration. Much of the site at Pier 38 is presently vacant. By providing improvements including the addition of landscaped areas, the proposed project will have a beneficial impact on overall environmental quality.

(8) ***Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions:***

Implementation of the proposed project will not cause any significant cumulative effects in combination with any projects ongoing at the present time. The Harbors Division is processing an Environmental Impact Statement for the *Oahu Commercial Harbors 2020 Master Plan.* One of the key purposes of the EIS will be to evaluate potential cumulative effects of ongoing and future projects in Honolulu Harbor, and to present mitigation measures, as required, to assure that any adverse cumulative impacts of these projects, taken collectively, are minimized. The Fishing Village project does not require a commitment for larger actions.

(9) ***Substantially affects a rare, threatened, or endangered species or its habitat:***

No rare, threatened, or endangered species, nor any habitats for such species, are associated with the project site.

(10) Detrimentally affects air or water quality or ambient noise levels:

Potential impacts on the harbor water quality resulting from dredging will be mitigated by implementing Best Management Practices. No adverse impacts are expected to result from construction activity. During operations, the potential for contaminants entering harbor waters during fish offloading would be prevented through use of a pierside trench drain system. Noise generated during construction would be temporary and would not significantly impact the project area, which is generally surrounded by industrial uses and is subject to high ambient noise levels due to traffic and aircraft overflights. No significant impacts to air quality would occur and vehicular and operational emissions would be minimal. Odor from the fishing operations would not be significant as fish waste will be frequently disposed of in appropriate containers, and removed from the site.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters:

The harbor project site is not in a high risk zone for seismic or tsunami activity. Having been extensively developed and filled, the site is no longer considered a sensitive natural environment. Dredging, construction and operational activities associated with the project will comply with state standards to assure that no significant impacts will occur to the harbor water quality.

(12) Substantially affects scenic vistas and viewplanes identified in county or State plans or studies:

Due to the flat topography and adjacent industrial structures, Piers 36-38 and harbor waters are not currently visible from any major public gathering places or State highways. The proposed low-rise building structures, as viewed from the harbor or from Nimitz Highway, will be consistent with the existing maritime industrial setting The proposed project will not significantly change public views or the appearance of the harbor.

(13) Requires substantial energy consumption:

The location of the proposed Fishing Village at Honolulu Harbor consolidates commercial fishing activities in a central location. Vehicular fuel consumption and travel time of seafood products will be reduced at the proposed location as commercial fishing boats will be able to offload their product directly at the Fishing Village piers, rather than trucking them to the current auction facilities in Kakaako. Construction and operation of the proposed project will not require substantial energy consumption relative to other similar projects.

6.2 DETERMINATION

For the reasons stated above, the Domestic Commercial Fishing Village at Piers 36-38 will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and §11-200-12, Hawaii Administrative Rules. Therefore, a Finding of No Significant Impact (FONSI) will be issued.

7. CHAPTER SEVEN – PARTIES CONSULTED

Public participation was an integral part of the Fishing Village scoping process. Over 60 harbor nd commercial fishing businesses were invited to informational meetings held in December 1997. In addition, the proposed Fishing Village was planned as part of the *Oahu Commercial Harbors 2020 Master Plan*. The Master Plan was a cooperative effort involving over 100 government agencies, commercial and industrial businesses, tourism industry representatives, economists, environmenal groups, concerned citizen groups, and individuals.

Key contacts at government agencies and prospective tenants are listed below. Comprehensive lists of participants involved in public meetings and planning efforts for the Fishing Village, and for the *Oahu Commercial Harbor 2020 Master Plan* (of which the Fishing Village project is a component), are contained in Appendix B. The Draft Environmental Assessment, announced in the *Environmental Notice* (April 23, 1998, Office of Environmental Quality Control), was subject to public review and comment. Copies of the comment and response letters are contained in Appendix C.

FEDERAL AGENCIES

U.S. Army Corps of Engineers

Alan Everson

Lolly Silva

National Marine Fisheries Service

Eugene Nitta

U.S. Coast Guard

Dick Spears

Public Health Service Food and Drug Administration, San Francisco District

Ms. Patricia Ziobro

STATE AGENCIES

Department of Transportation, Harbors Division

Fred Pascua, Engineering Design

Fred Nunes, Engineering Planning

Larry Cobb, Property Management

Alan Murakami, Oahu District Harbor Operations

Department of Transportation, Airports Division

Ben Schlapak, Engineering Planning

Department of Business Economic Development and Tourism, Ocean Resources Branch

Dr. Craig MacDonald

Department of Health, Office of Solid Waste Management

John Harder, Solid Waste Coordinator

Department of Health, Solid and Hazardous Waste Branch

Steven Chang, Program Manager

Department of Health, Clean Water Branch

Alec Wong, Supervisor, Engineering Section

Ed Chen, Environmental Engineer, Engineering Section

Department of Land and Natural Resources, Division of Aquatic Resources

Eric Onizuka, Program Manager

Department of Land and Natural Resources, State Historic Preservation Division

Muffett Jordain

Carol Ogata

Department of Land and Natural Resources, Land Division

Dean Uchida

CITY AND COUNTY OF HONOLULU

Board of Water Supply

Brook Yuen

Joe Kaakua

Fire Prevention Bureau

Charles Wassman

Department of Wastewater Management

Wayne Nakamura

Department of Land Utilization, Special Management Area Branch

Hawaii Community Development Authority

Alex Achimore, Planning

PROSPECTIVE USERS (PARTIAL LISTING)

Ahi Fishing Company, Floyd Otani

Fishland, Hansley Lau

Hilo Fishing Company, Eric Tokunaga

Horimoto Fish Market, Inc., Kenneth Horimoto

M. Kane's Fish Market, Robert Kaneshiro

Nobu of Hawaii, Eric Pixley

Suisan Company, Ltd., Glen Hashimoto

United Fishing Agency, Brooks Takenaka, Frank Goto

Diamond Head Seafood, Michael Irish

(see Appendix B for other prospective users)

8. CHAPTER EIGHT- REFERENCES

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Appendix A

Water Quality

Appendix A
Water Quality

The information contained in this Appendix reports on past water quality studies performed in the vicinity of the Piers 36-38 project site in Honolulu Harbor. It is exerpted in its entirety from "Attachment F" in:

Lacayo Planning, Inc., in association with Sea Engineering, Inc. (1994) *Pier 38 Master Plan Final Environmental Assessment.* Prepared for State of Hawaii, Department of Business, Economic Developmnent and Tourism.

Water Quality

Early reviews of water quality in Honolulu Harbor after the opening of the west entrance to the harbor and the deepening of Kalihi Ship Channel in 1960 are found in Ultramar Chemical Water Laboratory (1968), Cox and Gordon (1970), and Dillingham Environmental (1971). Because of improvements in analytical methods made during the 1970's, values for some parameters reported in these studies may not be comparable with more recent studies. Department of Health records provide some historical water quality data for Honolulu Harbor as shown in Table 1.

Water quality studies conducted for the Honolulu International Airport, Reef Runway Construction Project provide a one year record of water quality measurements from a station ("Station 7") at the west end of the Kapalama Basin. Samples were collected approximately monthly at several depths for the period from September 1977 through August 1978 (AECOS, 1979b). The data for "Station 7" are summarized in Table 2. The water quality criteria (DOH, 1989) clearly exceeded were turbidity and total phosphorus. Follow-up studies were reported by OI Consultants, Inc. (1986), and included a "Station D" located in the Kalihi Channel near the bascule bridge. Three samples, from the surface, mid-water, and near bottom, were collected on a single visit (July 15, 1986). The mean of these three samples is also included in Table 2.

TABLE 1.
Department of Health Water Quality Data for Honolulu Harbor; mean for January 1973 to December 1975 from the area around Pier 11 (after R. M. Towill Corp., 1982)

pH	8.03	Nitrate + Nitrate	0.013
		TKN	0.213
		Total Nitrogen	0.234
Dissolved Oxygen	6.27	Total Phosphorus	0.029
Temperature (oC)	26.2	Fecal Coliforms	1671
Turbidity (FTO)	1.88		
Total Coliforms	3941		

Units for nutrient and DO values are ppm (mg/L); coliforms are no./100 mls; Number of samples not stated, but 34 to 35 data points are stored in STORET file.

TABLE 2.
Kapalama Basin water quality measured over a one-year period in 1978-79 (AECOS, 1979b) and in July 1986 (OI Consultants, 1986)

Parameter	Geo. Mean	Range	N
Light Extinction Coefficient (m-1)	0.39	0.23 - 0.63	(11)
Turbidity (ntu)	1.6	0.9 - 5.0	(72)
(1986)	2.1		(3)
NFR (mg/L)	5.6	1.5 - 13.2	(71)
(1986)	5.33		(3)
Nitrate+Nitrate (mg N/L)	0.003	ND - 0.007	(72)
(1986)	0.001		(3)
Ammonia (mg N/L)	0.004	0.001 - 0.015	(72)
(1986)	0.016		(3)
Total N (mg N/L)	0.115	0.080 - 0.270	(72)
(1986)	0.235		(3)
Orthophosphate (mg P/L)	0.006	0.003 - 0.012	(72)
(1986)	ND		(3)
Total P (mg P/L)	0.039	0.014 - 0.101	(71)
(1986)	0.004		(3)
Chlorophyll a (ug/L)	0.15	0.06 - 1.53	(71)
(1986)	1.13		(3)

A survey of Honolulu Harbor conducted by Oceanit Laboratories, Inc. (1990) included water quality results for several stations as shown in Table 3. Values are reported as geometric means, although the number of samples collected were not given. Of relevance to the present site are the "Kalihi Channel" and "Kapalama Channel" stations, indicated on the station location map as mid-channel at the Sand Island, bascule bridge and mid-channel off Pier 29, respectively. For the period represented by these samples, the Kalihi Channel station appeared to have the worst water quality.

TABLE 3.
Summary of results from Honolulu Harbor water quality monitoring for the Aloha Tower redevelopment project (Oceanit Laboratories, 1990)

Station	Kalihi Channel	Kapalama Channel	Harbor	Main Channel
Turbidity (ntu)	3.95	0.94	0.80	0.32
TSS (=NFR)1 (mg N/L)	8.52	5.60	6.86	4.43
Nitrate + nitrite2 (mg/L)	0.003	0.003	0.004	0.004
Total Nitrogen (mg N/L)	0.125	0.100	0.112	0.100
Orthophosphate (mg P/L)	0.008	0.004	0.003	0.003
Total Phosphorus (mg P/L)	0.046	0.019	0.018	0.013
Chlorophyll α (µg/L)	0.46	0.57	0.55	0.30

1 - Total suspended solids or non-filterable residue.
2 - As "nitrate" in report.

Appendix B

Public Participation

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NOTICE OF PUBLIC INFORMATION MEETING
DOMESTIC COMMERCIAL FISHING VILLAGE

The State of Hawaii, Department of Transportation, Harbors Division has scheduled an informational meeting on the status of the Domestic Commercial Fishing Village to be developed on approximately 16 acres of public lands located between Piers 35 and 38, Honolulu Harbor, Island of Oahu. The purpose of the meeting is to provide information to potential long-term tenants of premises to be demised by sale at public auction or by direct negotiation, depending on the intended use of the property, and to receive non-binding comments of support and participation in the project from members of the domestic commercial fishing industry. The information to be disseminated at the meeting includes:

Project description and conceptual renderings of the Village

Scope of site development to be provided by Harbors Division

Sample documents to be used in the disposition of public lands

Discussion of permitted and prohibited uses of Village premises

Financing packages being offered to qualified borrowers

Annual lease rent as determined by an independent appraiser

Estimated Common Area Maintenance (CAM) charges

All interested parties are invited to attend this meeting at the Harbors Division Administrative Offices, located at 79 South Nimitz Highway, 3rd Floor Conference Room, at 2:00 p.m. on Monday, December 8, 1997. Please call (808) 587-1940 for more information.

ADVERTISE: Honolulu Advertiser, Monday, December 1, 1997
Honolulu Star Bulletin, Monday, December 1, 1997

Appendix B

List of Participants

Domestic Commercial Fishing Village (attendees at public information meeting on December 8, 1997)

DOT Harbors Division - Fred Pascua
Hawaii Ocean Industries - Mele Pabereva
Nobu of Hawaii - Nobu Tsuchiya, Eric Pixley
Horimoto Fish - Kenneth Horimoto
Wilson Okamoto & Associates - Richard Harada
United Fishing Agency – Brooks Takenaka, Daniel Otani, Akira Otani, Wayne Higashi
Dames and Moore – George Krasnick
Matubara, Lee, and Kotake – Curtis Zabata
Pacific TMR, Inc. – Lynell Takeuchi
Pier 18 – Bill Drake, Dickie Fukumoto
Pacific Petroleum – Steve Wetter
Senate, State of Hawaii, Office of Senator Sakamoto – Jake Ng
Ken's Kewalo – Hector Veneras
M. Kane's Fish – Robert Kaneshirc
Pacific Ocean Products – Sean Mastin
Action Realty – Brian Maeshiro
Toho America Corp. – Shigeru Yoshida
Big Island Seafood – Andrew Martin
PCI – Wally Samuelson
Office of Hawaiian Affairs – Colin Kippen
Garden and Valley Isle Seafood – Nelson Aberilla
T.J. Kraft, Ltd. – Tom Kraft
Seafood Connection – Stu Simmons
Pacific Asia Design Group – Donna Yuen
State of Hawaii, House of Representatives, Finance Committee – Brian Hallett (staff)
City and County of Honolulu, Department of Wastewater Management – Kumar Bhagavan
City and County of Honolulu, Department of Housing and Community Development – Paul Kobata
V. Okada & Co., Ltd. – Dexter Okada
Ahi Fishing Co. – Floyd Otani
Wainani Kai Seafood – Lance Sang
The Hawaiian News – Tony Auld Yardley
Senate, State of Hawaii – Cal Kawamoto
Tensuke of Hawaii – Cliff Yasutani
Fresh Island Fish – Damon Johnson
Fishland – Milton Mitsuda, Paul Nishimoto
Shigamura, Lau, Sakanashi, Higuchi & Associates, Inc. – Stanley Shigemura, Beverly Ishii-Nakayama

Participants and Contributors

Oahu Commercial Harbors 2020 Master Plan

Aala Ship Service - Rodney Tamamoto
Alii Kai Catamarans
All Hawaii Cruises
Aloha Cargo Agency Services
Aloha Cargo Transport - Fred T. Miura, Jim Warner
Aloha Petroleum - Ron Everett, Sam Olson
Aloha Tower Associates - David Schmidt, Eric Smith
Aloha Tower Development Coporation - Ronald Hirano
American Divers Inc. / American Workboats - Rusty Nall
American Hawaii Cruises - William Anonsen
Ameron HC&D - Linda Goldstein, William R. Kerby, Steve Proctor
Applied Energy Services - Bill Ruccius
Atlantis Reef Divers
Atlantis Submarines Hawaii LP - Jon Chapman, Doug Fry, Terry O'Halloran
BHP Hawaii Inc. - Mike Canite, Lesley Brey, Bill Heddaeus, Susan Kusunoski, Pete Latham, Mike Latham, Darrell Young
C & H Sugar Co. - Fred Stammen
Campbell Estate - Tim Brauer, David Franzel, Tom Heiden
Chevron Shipping Co. - Clarence Chong
Chevron U. S. A., Inc. - Richard Bertero, Dave Koning, Tim Potter, Wilson Rivera
China Seas Dragon Enterprises - David Hoe
City & County of Honolulu Department of Planning - Tim Hata, Cheryl Soon
City & County of Honolulu Department of Public Works - Darwin Hamamoto, Kenneth Sprague
City & County of Honolulu Department of Transportation Services - Toru Hamayasu
Clean Islands Council - Kim Beasley
CON-FAB Corp. - Robert Patterson
Cook Inlet Region, Inc. - David Shibata
Dae Han Shipping Agency Inc. - James J. Su
Dan's Dive Shop
Davies Marine - Dave Davies
Dream Cruises - Frank Alexich, Mike Watson
EMW Enterprises
Engineering Concepts Inc. - Ken Ishizaki, Dana Yamamoto
Engineering Services Co. - Jason Lembeck
F/V Havana - Tom Webster
Fisherman's Wharf - Sonny Morihara
Fleming Foods - Roger Godfrey
Hawaii Community Development Authority - Alex Achimore, Lori Hoo, Eric Matsutomi, Jan Yokota
Hawaii Maritime Center
Hawaii Metal Recycling Co. - Jim Banigan, Lawrence Kalilikane
Hawaii Ocean Industry - Mele Pochereva, Terry White
Hawaii Pilots Association - Steven G. Baker, Frederick Hoppe
Hawaii Responder - Tom Collins
Hawaii Stevedores Inc. - Murray Grune, Randy Grune, Wendall Kiaha, Keith Inouye, Rusty Leonard
Hawaii Transportation Association - Gareth Sakakida
Hawaiian Cement - John Shin, Frank Steinmiller
Hawaiian Crane & Rigging Ltd. - C. Mack Rolison
Hawaiian Electric Company - John Fitzmaurice, Ken Fong, Art Seki
Hawaiian Independent Refineries, Inc. - Jim Kappel
Hawaiian Milling Corp. - Cody Lee Mark
Hawaiian Power Boats, Inc. - Vern Cassell
Hawaiian Sugar Planters Association - Ruth Yamato
Hawaiian Tug & Barge Corp. / Young Brothers Ltd. - Glenn Hong, Jeff Low, Kent Whitman, Frank Yuen

Hawaiian Tuna Packers - Stanley I. Hara
HFM First In Foods - Leland Blackburn, Mike Fujimoto, Ken Nygard, Alan Yoshikami
Honolulu Agency - Edward G.Araki
Honolulu Marine Inc. - Charles Pires
Honolulu Shipyard Inc. - Bill Clifford, Arthur Onikama
Honolulu Shipyard Inc. / Island Navigation Co. - Jim Cummings
Inchcape Shipping Services - Mike Clarity
International Longshoremen's & Warehousemen's Union - Dean Chung, Henry Kreutz, Nathan Lum, Tyrone Tahara
Island Maritime Agencies, Inc. - Patrick Sambueno
Jardine Shipping Agencies - Skip Howard, Deme Panagopulos
Jet Tours Hawaii
Jorgensen Steel & Aluminum - Kerry Batchelder
Leahi Catamaran
Lockheed Air Terminal
Manuiwa Catamaran - Mary Bigler, Steven Bigler
Marine Spill Response Commission - John Seltenright
Marine Surveyors and Consultants, Ltd.
Marisco - Fred Anawati
Matson Navigation Co. - Rich Bliss, Bob Murray, Ken Tagawa
McCabe, Hamilton & Renny Co., Ltd. - Tim Guard
Mid Pacific Shipping - Carl Hatakeyama
MTI Vacations - Randy Christensen
Nautical Service Hawaii - Buzz Willauer
Nautilus Subsea Adventure - Ted Bush, Debbie Huneke
Nittaku Investment Inc. / Fisherman's Wharf - Gordon Yoshida
Norko Marine Agency - Norman L. Cheu
Oahu Metropolitan Planning Organization - Gordon Lum
Oceanic Global Trading - Steven M. Yoshizawa
Office Of The Governor - James Yamamoto
P & R Water Taxi - Charles Pires
Pacific Marine - Michael Schmicher
Pacific Marine & Supply Co. Ltd. / Royal Hawaiian Cruises - Debra C. Chun
Pacific Ocean Adventure, Inc.
Pacific Ocean Producers - Jim Cook, Sean Martin
Paradise Cruise Ltd. - Reg White
Parsons, Brinckerhoff, Quade and Douglas Inc. - David Atkin, Bruno Garunkstis, Larissa Sato, Jason Yazawa
Pomare, Ltd. - Jim Romig
Port Pilots of Hawaii
Rainbow Management Group
Royal Hawaiian Cruises - Susan Matsuura

R. M. Towill Corp. - Colette Sakoda
Sailaway Club - Robert Keller
Sause Brothers Ocean Towing, Inc. - Ace Clarke, Brad Rimmel, Douglas Won
Sea Angel, Inc.
Sea Breeze Parasail, Ltd. - Jeffery J. Krantz
Sea Engineering, Inc.
Seafood Hawaii
Sea-Land Service - Kurt Pruitt, John Sutherland, Clint Taylor, Alden Zecha
Servco Pacific, Inc. - Carol Lam
Shell Oil Co. - Keith Belknap
Smith Maritime - Gordon Smith
SMS Research - John Kirkpatrick, Kaala Souza
State Department of Budget & Finance - Earl Anzai
State Department of Business, Economic Development - Chris Chung, Athline Clark, Rick Egged, Dr. Pearl Imada-Iboshi, Paul Kobata, Dr. Craig MacDonald, Brad Mossman, Dr. Seiji Naya, Dan Orodenker, Gordon Trimble
State Department of Health - Dr. Bruce Anderson, Bryce Hataoka, Dr. Lawrence Miike
State Department of Land & Natural Resources - Glenn Abe, John Dooling, Dave Parsons, Cecil Santos, Jim Schoocraft, Steve Thompson, Michael Wilson, W. Mason Young
State Department of Transportation - Marshall Ando, John Blackburn, Felipe Cabana, Nathan Chang, Chris Dasch, Thomas Fujikawa, Maurice Fujimoto, Kazu Hayashida, Barry Kim, Randal Leong, Derrick Lining, Sharon Matsuda, Alan Murakami, Harry Murakami, Fred Nunes, Fred Pascua, Clarence Okamura, Hugh Ono, Ben Schlapak, Glenn Soma, Elton Teshima, Patrick Torres, Julia Tsumoto, Ron Tsuzuki
State Office of Environmental Quality Control - Gary Gill
Submarines Hawaii
Subsea Adventures
Texaco - Rand Shannon
Tow Boat Services & Management, Inc. - Joe Almony
Transmarine Navigation Corp. - David Burrows, Kevin Kinerney, Bob Kitagawa, Bill Nickson
United Fishing Agency - Frank Goto, Wayne Higashi, Daniel Otani, Brooks Takenaka
University of Hawaii - Bill Coste, Charles Helsley, Richard Longfield, Christine Woolaway
UNOCAL - Ken Higa
U. S. Coast Guard District 14 - Timothy Beltz, Susan L. Papuga
U. S. Army Corps of Engineers - Mike Lee, Paul Mizue, Milton Yoshimoto
U. S. Customs - Patrick Burke, Harley Carter, Creighton Goldsmith, Emily Narciso
Voyager Submarines - J.C. Merrill
Waldron Steamship Co. Ltd. - Troy Brown, Eddie Koga, Kimo Pierson, Bruce Swartz, Bill Thayer
Welekahao Catamarans, Inc. - Frank Lamberti
Wind and Sea Charters
Windjammer Cruises - Bob Halero, D. J. Halero

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WRAF Corp.
Wyland Galleries - William Wyland
Yacht Marketing
Yasuko Lunchwagon
Robert Austin
Matt Battista
David Brice
Chris H. Graff
Scott Locke
Steve Louie
Susan Matsuura
Wally Parcels
Steven Ruble
Dave Strong
P. Michael Watson

Appendix C

Comment Letters and Responses

0000 0018 2130

THE GAS COMPANY
Citizens Energy Services

May 26, 1998

Mr. Tom Fujikawa
Harbors Administrator
Department of Transportation
Harbors Division
79 South Nimitz Highway
Honolulu, HI 96813

Dear Mr. Fujikawa.

Thank you for the opportunity to comment on the Draft Environmental Assessment for the proposed Domestic Commercial Fishing Village at Piers 36-38 dated April 1998.

The Gas Company/Citizens Utilities Company (TGC) supports the proposed fishing village and will work with the State to relocate TGC's existing facilities at Pier 38 to an area which is compatible with our operations. The following are our comments on the draft document, which primarily clarify and provide more detail on our current facilities and operations at the project site and surrounding area and the potential impact of the proposed fishing village on our operations.

1. **Section 1.3, Page 1-5, Paragraph 3** Please change this and other references to our company from "Honolulu Gas Company (GASCO)" to "The Gas Company/Citizens Utilities Company (TGC)."

2. **Section 1.3, Page 1-8, Paragraph 3** For the purposes of clarification, TGC operates a propane air backup unit for its utility synthetic natural gas (SNG) distribution system and a liquid propane gas terminal at Pier 38. In addition to berthing our barges at Pier 38, TGC also off loads and loads propane onto its barge for use on Oahu or shipment to the neighbor islands. Currently, we have seven 30,000 gallon propane storage tanks on the site.

3. **Section 1.3, Page 1-8, Paragraph 4** While certain of TGC's facilities, potentially, can be relocated to Barber's Point Harbor, there still remains a portion of TGC's facilities that need to continue to be located in the Honolulu Harbor area in order to ensure the reliability of our SNG utility system. These facilities include the propane air unit and related office trailer, two-30,000 gallon propane tanks, related piping to

THE GAS COMPANY
[illegible] Bishop Street Suite 1700 Honolulu Hawaii 96813
PO Box 2000 Honolulu Hawaii 96802-2000
Telephone 808 535 5900 Facsimile 808 535 5944

connect to the nearby Kapalama let down regulator station and idle berthing of our barge at Pier 38.

4. **Section 1.4, Page 1-8, Paragraph 2** TGC's Kapalama regulator let down station is located just west of Chevron's jet storage facility, directly off of Nimitz Highway. This facility controls the pressure of the SNG utility system serving the businesses and residents of Honolulu and needs to be located immediately adjacent to our main transmission line which runs along Nimitz Highway.

5. **Section 2.1.2.2, Page 2-9, Paragraph 2** For your information, during the transfer of propane to the barges berthed at Pier 38, propane may need to be vented as a part of normal operations. In addition, the propane air machine requires flaring during the first five to ten minutes of start up operations and occasionally during the operation of the equipment. The propane air equipment creates a high ambient noise environment. Our personnel always wear ear protection when working in the vicinity of the equipment.

6. **Section 2.1.3.3, Page 2-13** TGC will continue to require telephone, water and electric service. In addition to the utilities mentioned, there are also gas lines running from the propane air machine to the Kapalama let down regulator station and from the propane storage tanks to the berth at Pier 38 which are used to transfer propane to the barges. Prior to beginning any construction in the area, please contact us so we can tone our lines.

7. **Section 3.1.4, Page 3-4** TGC's propane air machine, which is tested approximately one hour every two weeks, is used to feed propane air into TGC's SNG gas utility system during emergencies, such as major problems at the SNG plant at Campbell Industrial Park or with the transmission line from that facility. Without the ability to operate the propane air machine while TGC corrects such problems, it would be impossible to maintain reliable utility gas service to the company's over 30,000 business and residential customers on Oahu.

8. **Section 3.1.5, Page 3-5, Paragraph 3** In addition to the activities and uses mentioned, TGC also operates the propane air system. Off the project site, immediately west of Chevron's above ground tanks adjacent to Nimitz Highway, TGC operates the Kapalama let down regulator station.

9. **Section 3.1.11.4, Page 3-8** TGC stores diesel above grade at the project site, which is used to fuel the generator to operate the propane air machine. TGC also stores up to 190,000 gallons of propane at the project site.

The Gas Company is committed to working with the State to move its barging and the majority of its propane storage facilities to a location at Barber's Point Harbor which is

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compatible with its operations and to relocating, if required, its propane air facilities and the required diesel and propane storage required for this facility to an area near its existing Kapalama let down regulator station.

If you have any questions regarding our comments, please contact me at 535-5913.

Sincerely,

Steven P. Golden
Manager, Government & Public Affairs

cc: Mr. Fred Pascua

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NJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 SO. NIMITZ HWY. • HONOLULU, HAWAII 96813-4898

IN REPLY REFER TO:

HAR-ED
4274.98

June 8, 1998

Mr. Steven P. Golden
Manager, Government and Public Affairs
The Gas Company/Citizens Utilities Company (TGC)
541 Bishop Street, Suite 1700
Honolulu, Hawaii 96813

Dear Mr. Golden:

Subject: Domestic Commercial Fishing Village, Piers 36-38, Honolulu Harbor
Oahu - Job H.C. 1972/H.C. 1983

Thank you for your letter of May 26, 1998 regarding the proposed Domestic Commercial Fishing Village. The Final EA will reflect the necessary revisions and provide clarification supplied by TGC on your Pier 38 operations. We provide you with our responses in the order of your comments:

1. Company name noted: The Gas Company/Citizens Utilities Company (TGC) will be substituted throughout the Final EA.

2. Details on TGC operations have been added to Section 1.3 and Figure 1.3.

3. To be noted in Section 1.3: TGC is cooperating with the DOT Harbors Property Management to relocate barging and the majority of its propane storage at Pier 38 to Barbers Point Harbor. Both parties are working to identify an appropriate location to consolidate and relocate TGC's remaining essential operations. The location will most likely be closer to Nimitz Highway, away from public activities that will occur at the proposed Domestic Commercial Fishing Village. Relocation is anticipated within the next five years.

4. Details on TGC operations have been added to Section 1.3.

5. A description of TGC's venting and testing operations is added to Sections 3.1.3 and 3.1.4. The venting during transfer of propane gas results in releases of propane which is generally dissipated by trade winds. Dissipation may occur more slowly if venting takes place during periods of northwesterly winds. The flaring operations generally result in combustion of most of the excess propane gas.

   Potential noise impacts from testing of TGC's propane air machine are periodic and short term, and will not cause a significant impact on the proposed project. The air machine testing occurs for approximately one hour every two weeks. TGC will coordinate with Harbors Division to schedule testing to avoid peak public and employee-use hours. Various aesthetic improvements, including constructing a moss rock wall around TGC's area, installing slats within the existing perimeter fence, and landscaping have been investigated to shield the facility from the public. However, as Liquid Propane Gas (LPG) is heavier than air, walls and other solid structures would retain any escaping LPG. Through discussions with TGC, it was determined that the existing chainlink fence which surrounds the area will remain to allow the dispersion of any escaped LPG. Furthermore, warning signs will be affixed to the existing perimeter fence to notify the public of the existing activities therein and safety conditions which need to be followed.

6. Section 4.1.9 has been revised to note that the contractor will notify TGC prior to construction, to allow for TGC's toning of lines. A demolition plan which indicates TGC easements is being prepared as part of the project's construction documents.

7. Refer to response #5.

8. Details on TGC operations have been added to Section 3.1.5.

9. Reference to TGC's diesel fuel storage on site has been added to Section 3.1.5.

We thank you for your comments and your interest in this project.

Very truly yours,

Thomas T. Fujikawa
Harbors Administrator

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University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822
Telephone: (808) 956-7561 • Facsimile: (808) 956-3980

May 22, 1998
EA:00174

Fred Pascua
Department of Transportation
Harbors Division
79 South Nimitz Highway
Honolulu, Hawaii 96813

Dear Mr. Pascua:

Draft Environmental Assessment
Piers 36-38 Domestic Commercial Fishing Village
Honolulu, Oahu

The Department of Transportation, Harbors Division, proposes to develop a domestic commercial fishing village at Piers 36-38 in Honolulu Harbor, Oahu, Hawaii. State funds will be used to dredge and construct a new pier, reinforce the Pier 37 finger pier, and construct a multi-user building, new roadways, utilities, and common areas. Tenants will be responsible for developing their own structures, based on specific architectural guidelines.

We reviewed this draft Environmental Assessment (EA) with the assistance of Jacquelin Miller and Victoria Cullins of the Environmental Center.

Scope of Project

The cost for this project is estimated at more than $9 million. It will involve moving several businesses, creating a new pier approximately 323 feet long, dredging the harbor near the pier, cutting back the existing shoreline approximately 20 feet, building several large structures (warehouse, multi-user building, an ice house), and creating parking for 270 cars plus various walkways and pedestrian promenade areas. In addition, extensive subsurface contamination from decades of spills and leakage of petroleum and

other contaminates is a known feature along the Honolulu waterfront. To predict that this project will have no significant impacts is preposterous.

Present Occupants of Area

The document fails to identify the impacts to the current occupants of this area that will be required to relocate. There is no discussion of where they will be relocated, the economic consequences of their move, or the time table for their vacating. This relocation will be a significant impact on businesses and occupants of this area.

Structure

The plans call for steel sheet to be installed to support the dredged sides of the new shoreline. The pier bulkhead will be secured by steel tie rods anchored in concrete. What is the life expectancy of these steel fasteners and sheet pile in salt water?

Traffic

It appears that there will be significant traffic into and out of the area both during construction (5 years) and after, when the occupants of the village and visitors will be actively entering and exiting the area. There is no discussion of the impacts of this additional traffic on an already congested Nimitz Highway.

Dredging and Disposal

The document utterly fails to discuss adequately the impacts of dredging and disposal. The area where the sediment samples were taken and the number of tests carried out need to be included to determine where these materials properly should be disposed. The area to be dredged is heavily contaminated with various petroleum products and heavy metals. Alternative disposal methods for contaminated sediments and soils should be considered and some may require the use of EPA bioassay tests. In the event that floating product or substantive residual contaminants are encountered, excavated materials will constitute hazardous waste, requiring special handling, treatment and disposal.

Heavy contamination may warrant the use different types of dredging equipment to minimize the spillage of contaminated products into harbor waters. The off loading equipment and procedures, along with the method of transporting the dredged materials need to be identified and discussed further. If the dredged material is to be pumped, the control of wastewater effluent and overflow must be considered. If trucked and dumped, then leakage from the trucks will be a potential source of pollution.

If the material is to be dewatered prior to disposal, the document needs to describe where, when and how this process will be performed. These sediments will be extremely odoriferous. If allowed to dry, they will be blown all over town as they are almost certainly very fine-grained sediments. A physical profile of the sediments being removed and discussion of how they will be transported and unloaded at the upland disposal site need to included in the document.

According to the last sentence of Section 4.1.22, impacts of excavating contaminated soil are to be discussed in Section 4.1.10, which is instead, the discussion of Circulation and Traffic. The excavation impacts, in fact are discussed only cursorily in Section 4.2.1.2, couched in terms which can only be described as dismissive, with the final emphasis on the "positive impact" of contaminated sediment removal.

Air Quality

The discussion of air quality does not consider the odors arising from dredged materials nor the potential for airborne dust from the disposal operations.

Conclusion

Given the scope and extent of the known contamination in the area, which is the subject of an ongoing, multi-agency and potentially responsible party collaborative remediation survey, not to mention the focus of recent legislative fact finding hearings, we find the cavalier and cursory treatment of these issues highly disturbing. In the opinion of our reviewers, in view of the scope of the project and its potential impacts, a "finding of no significant impact" is egregiously inappropriate.

Sincerely,

John T. Harrison
Environmental Coordinator

c: OEQC
Belt Collins
Roger Fujioka
Jacquolin Miller
Victoria Cullins

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NJAMIN J. CAYETANO
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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IN REPLY REFER TO:
HAR-ED
4275.98

June 8, 1998

Mr. John Harrison
Environmental Coordinator
University of Hawaii at Manoa - Environmental Center
2550 Campus Road
Honolulu, Hawaii 96822

Dear Mr. Harrison:

Subject: Domestic Commercial Fishing Village, Piers 36-38, Honolulu Harbor
Oahu - Job H.C. 1972/H.C. 1983

Thank you for your letter of May 22, 1998 regarding the proposed Domestic Commercial Fishing Village. We provide you with our responses in the order of your comments:

Scope of Project

Your summary of the proposed action is duly noted. The Final Environmental Assessment (EA) carefully evaluates the potential impacts of the various specific elements which you mention, as well as the potential cumulative effects of the project in combination with other known projects planned for Honolulu Harbor (see Section 4.3.5 of the Final EA).

With regard to concerns about on-site contamination, based on the previous environmental studies and remedial activities and the project's adherence to Department of Health (DOH) "*Guidance on Construction Activities Encountering Area-Wide Petroleum Contaminated Soils*" and other applicable Federal and State laws and regulations, together with the experience of other construction projects in the area, we anticipate no significant impacts due solely to existing petroleum contamination. The project design and contract documents provide for management of encountered contamination.

The sections which follow go on to address your other specific concerns.

Present Occupants of Area

As described in Section 1.3, tenants on the project site hold month-to-month revocable permits with DOT. The tenants that will require relocation include Hawaii Transfer, Don's

Makiki, Inc., Hawaii's Sailing Center, Sea Spray LLC, and Pacific Ocean Producer. DOT Harbors Property Management is currently working with these tenants to relocate them elsewhere within the Harbor area.

Pier Bulkhead Structure

The proposed pier structure is in accordance with DOT Harbors Division's design and construction standards and is consistent with current harbor construction practices. The vulnerable portion for bulkhead corrosion is the area affected by tidal and wave fluctuations (splash zone). To deter corrosion, this area is shielded by a protective coating which will extend the life of the pier's structural components for approximately 20 years. Furthermore, a concrete cap is also included for the full length of the splash zone from the top of the sheet to a few feet below the waterline. Finally, the steel bulkhead section has been specified at an increased thickness to counteract a potential reduction in strength and life expectancy due to corrosion. This description is now included in Section 2.1.2.1 of the Final EA.

Traffic

A discussion of the short-term impacts on Nimitz Highway traffic during project construction is provided in Section 4.1.10.2 of the Environmental Assessment. The long-term impacts from the normal operations of the proposed Fishing Village are discussed in Section 4.1.10.3 of the EA.

Dredging and Disposal

Regarding sediments to be dredged from the harbor bottom, results of sampling and analysis, including physical and chemical properties, are briefly described in Section 3.2.1 of the Final EA with reference to appropriate documents (References: 1) MEC Analytical Systems, Inc. [MEC], August 1995, *Dredge Material Testing and Analysis Berth 37, Port of Honolulu,* prepared for The Lacayo Group. 2) MEC, April 1998, *Sampling and Analysis Plan, Pier 37/38.* 3) MEC, May 1998, *Pier 37/38 Port of Honolulu, Hawaii Dredge Sediment Characterization Confirmation Draft Report,* prepared for Shigemura, Lau, Sakanashi, Higuchi, and Associates.)

The 1995 analyses included Tier II sediment chemistry, Tier III bioassay tests, and physical analysis. The 1998 analyses were conducted to confirm that past sediment analyses were still valid and included physical and Tier II sediment chemistry. In addition, Toxicity Characteristic Leaching Procedure (TCLP) analysis was conducted in 1998 to determine whether dredged sediment that was likely to be placed upland would be considered hazardous. The TCLP results indicate that dredged sediment would not be considered hazardous waste (under 40 Code of Federal Regulations, Part 261). Based on this information, the majority of the sediment is suitable for ocean disposal at the South Oahu Ocean Dredged Materials Disposal Site (ODMDS), and a portion is suitable for upland placement at either the Soil Management Facility (SMF) at Honolulu Airport Reef Runway

or at Nanakuli Landfill. Overall, as a permitted activity, the contractor will need to adhere to all conditions set forth by the Army Corps of Engineers Permit for Ocean Disposal and by the Department of Health in regards to upland disposal.

Furthermore, the method of dredging and off loading of dredged sediment will comply with State of Hawaii Department of Health requirements to maintain water quality in State waters, as well as meeting existing air quality standards. Possible mitigations to be employed, as mentioned in Section 4.1.9 of the Final EA, may include, as required, use of specialized buckets for dredging, as well as use of silt curtains around the dredge site and fill site. Such mitigation will reduce the spread of re-suspended sediments, and use of silt fences and covers in the dewatering area, as appropriate, would prevent fugitive dust escaping the site from drying sediments. Once sufficiently dry, sediments will be transported to an upland placement location at either the Reef Runway SMF or Nanakuli landfill. Transport of the materials will also comply with State and Federal regulations regarding the transport of petroleum-contaminated materials. These regulations require controls to prevent material spillage.

At the SMF, sediments may be mixed with other materials to create fill material for the Reef Runway. At the Nanakuli landfill, sediments could be used as cover material or disposed and covered. In either case, sediments would be stabilized to prevent fugitive emissions from leaving the sites, and handled in keeping with State requirements and applicable permit conditions at each site.

Additional information has been included in Section 3.1.8 of the Final EA to further describe the issue of area-wide contamination, and the measures being taken to address this problem. Regarding the handling of excavated contaminated materials originating on the land, the project will be completed in accordance with the DOH Guidance cited above, which was specifically written for this type of situation; i.e., where a construction project may encounter area-wide contamination. These requirements are included in design and bid/contract documents. If contaminated materials cannot remain on site they will be sampled, analyzed, and appropriately disposed of at DOH-approved facilities. Transport of the materials will also comply with State and Federal regulations regarding the transport of hazardous or petroleum-contaminated materials. These regulations require controls to prevent material spillage. We expect that a minimal amount of material will be removed from the property.

Specifications for dewatering and runoff control specify that runoff shall not enter harbor waters. Return of contaminated water to on-site excavation is permitted by the DOH Guidance. If dewatering requiring a discharge to State waters is necessary, the contractor will obtain an appropriate NPDES General Permit. These permits require source water quality analysis, monitoring, and pre-treatment if necessary to meet receiving water quality standards.

The reference to Section 4.1.10 has been changed to reference Section 4.1.9, which addresses contaminated sediments and dredging.

Air Quality

Discussion of the potential for odor from dredged sediments undergoing dewatering on Pier 38, and associated impacts, has been added to Section 4.1.4 of the Final EA.

Generation of fugitive dust is prohibited under HAR 11-60.1, and all necessary precautions will be taken to control fugitive dust. Discussion of fugitive dust is addressed in Section 4.1.4 of the Final EA, with mitigation measures described.

We trust that our responses adequately address your comments. We thank you for your interest in the project.

Very truly yours,

Thomas T. Fujikawa
Harbors Administrator

0000 0018 2142

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
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TELEPHONE (808) 586-4186
FACSIMILE (808) 586-4186

May 26, 1998

Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Draft Environmental Assessment for the Proposed Domestic Commercial Fishing Village at Piers 36-38, Oahu

Thank you for the opportunity review the subject document. We have the following questions and comments.

1. Previous use of the site and adjacent areas have resulted in contamination of soil, groundwater and the ocean sediment. Please describe the extent of contamination and the scope of cleanup connected with this project. Also report who is responsible for paying for the cleanup of the contaminated soil, groundwater and dredged ocean materials.

2. Dredging and other construction related activity will cause adverse water quality impacts. Please provide details of the Best Management Practice (BMP) procedures that will be implemented to minimize water quality impacts.

3. Please describe other projects in this area that are covered under the Oahu Commercial Harbors Master Plan and describe their cumulative impacts.

4. The Hart Street wastewater pump station is located next to this project site. Please describe whether this project will impact the operations of the wastewater pump station. Will odors from the pump station affect the "fishing village."

5. Please identify all agencies, citizen groups and individuals consulted during the assessment process.

6. Please discuss the findings and reasons for supporting the FONSI determination based on the significant criteria listed in §11-200-12 of the EIS rules. Please see the enclosed example.

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Should you have any questions, please call Jeyan Thirugnanam at 586-4185. Mahalo.

Sincerely,

Gary Gill
Director

c: Belt Collins Hawaii

8.0 DETERMINATION, FINDINGS AND REASONS FOR SUPPORTING DETERMINATION

8.1 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

(1) **Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;**

The proposed project will not impact scenic views of the ocean or any ridge lines in the area. The visual character of the area will change from the current agricultural land to an improved 4-lane highway which is compatible with the surrounding land use plans and programs being implemented for the region. The highway corridor is comprised of "Prime" agricultural land which is an important resource. Development of drainage systems will follow established design standards to ensure the safe conveyance and discharge of storm runoff. In addition, the subject property is located outside of the Count's Special Management Area (SMA).

As previously noted, no significant archaeological or historical sites are known to exist within the corridor. Should any archaeologically significant artifacts, bones, or other indicators of previous on-site activity be uncovered during the construction phases of development, their treatment will be conducted in strict compliance with the requirements of the Department of Land and Natural Resources.

(2) **Curtails the range of beneficial uses of the environment;**

Although the subject property is suitable for agricultural uses, the land area adjoining the Mokulele Highway is naturally suited for transportation purposes due to its location proximate to an existing highway system. To return the site to a natural environmental condition is not practical from both an environmental and economic perspective.

(3) **Conflicts 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;**

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To Fred Poscua	From
Co. UOT-HAR	Co. OEQC
Dept.	Phone #
Fax # 71864	Fax #

The proposed development is consistent with the Environmental Policies established in Chapter 344, HRS, and the National Environmental Policy Act.

(4) Substantially affects the economic or social welfare of the community or state;

The proposed project will provide a significant contribution to Maui's future population by providing residents with the opportunity to "live and work in harmony" in a high quality living environment. The proposed project is designed to support surrounding land use patterns, will not negatively or significantly alter existing residential areas, nor will unplanned population growth or its distribution be stimulated. The project's development is responding to projected population growth rather than contributing to new population growth by stimulating in-migration.

(5) Substantially affects public health

Impacts to public health may be affected by air, noise, and water quality impacts, however, these will be insignificant or not detectable, especially when weighed against the positive economic, social, and quality of life implications associated with the project. Overall, air, noise, and traffic impacts will be significantly positive in terms of public health as compared to the "no action" alternative.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities

Existing and planned large-scale housing development projects within Wailuku-Kahului and Kihei will contribute to a future population growth rate that will require expansion of public and private facilities and services. These improvements will become necessary as the overall population of Maui grows and settlement patterns shift. However, the proposed project will not in itself generate new population growth, but provide needed infrastructure the area's present and future population.

In addition, new employment opportunities will generate new sources of direct and indirect revenue for individuals and the County of Maui by providing both temporary and long-term employment opportunities during the construction period. Indirect employment in a wide range of service related industries will also be created from construction during project development.

(7) Involves a substantial degradation of environmental quality;

The proposed development will utilize existing vacant agricultural land. With development of the proposed project, the addition of urban landscaping will significantly mitigate the visual impact of the development as viewed from outside the site while the overall design will complement background vistas.

Makai views from the subject property are available, however, they are not significant nor generally available to the public in the property's present restricted condition.

(8) **Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;**

By planning now to address the future needs of the community and the State, improvement of the transportation system is consistent with the long term plans for Maui. No views will be obstructed or be visually incompatible with the surrounding area.

(9) **Substantially affects a rare, threatened or endangered species or its habitat;**

No endangered plant or animal species are located within the highway corridor.

(10) **Detrimentally affects air or water quality or ambient noise levels;**

Any possible impact to near-shore ecosystems resulting from surface runoff, will be mitigated by the establishment of on-site retention basins during the construction phases of development. After development, retention areas within the highway right-of-way will serve the same function to encourage recharge of the groundwater.

(11) **Affects 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, freshwater, or coastal waters.**

Development of the property is compatible with the above criteria since there are not environmentally sensitive areas associated with the project and the physical character of the corridor has been previously disturbed by agricultural uses. As such, the property no longer reflects a "natural environment". Shoreline, valleys, or ridges will not be impacted by the development.

(12) **Substantially affects scenic vistas and view planes identified in county or state plans or studies;**

Due to topographical characteristics of the property, views of the area to be developed are generally not significant although they are visible. The majority of the proposed project will not be visible, except from higher elevations by the general public or from persons traveling along the highway.

(13) **Requires substantial energy consumption.**

The location of the proposed project is between Maui's major growth areas. This relationship will reduce travel times and energy consumption after project build out through efficiencies gained by the increased capacity of the highway. Construction of the proposed project will not require substantial energy consumption relative to other similar projects.

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BENJAMIN J. CAYETANO
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IN REPLY REFER TO:
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June 8, 1998

TO: GARY GILL, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPARTMENT OF HEALTH

FROM: KAZU HAYASHIDA
DIRECTOR OF TRANSPORTATION

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR THE DOMESTIC COMMERCIAL FISHING VILLAGE, PIERS 36-38, HONOLULU HARBOR, OAHU
JOB H.C. 1972/H.C. 1983

Thank you for your letter of May 26, 1998 regarding the proposed Domestic Commercial Fishing Village. We provide you with our responses in the order of your comments:

1. A discussion of regional petroleum contamination has been added in Sections 3.1.8 and 4.1.9.4 of the Final Environmental Assessment (EA). This issue is also addressed in the design documents for the project and will be incorporated into the contract and bid documents. The design and construction will be completed in compliance with Department of Health (DOH) *Guidance on Construction Activities Encountering Area-Wide Petroleum Contaminated Soils* and other applicable Federal and State laws and regulations.

   Previous studies and reports have identified the presence of petroleum products and their individual constituents, free product on groundwater, and heavy metal contamination at various locations at the project site (Earth Tech 1997, Clements, 1992, Ogden 1995). Free product was specifically noted in the northwestern portion of the Piers 37/38 area.

   The project site is one property within the Iwilei Unit of an ongoing area-wide investigation. It is the scope of the Iwilei Unit investigation to perform specific investigation and/or complete remedial action of encountered petroleum contamination. However, the contractor shall be responsible for taking the safety, contamination management, and documentation actions required by and with DOH Guidance. Compliance with the DOH Guidance involves

the protection of worker and public health and safety; immediate notification of DOH; documentation of the locations of contaminated areas; and, proper management of contaminated excavated materials.

If contaminated materials cannot remain on-site, they will be sampled, analyzed, and appropriately disposed of at DOH-approved facilities. Transport of the materials will also comply with State and Federal regulations regarding the transport of hazardous or petroleum-contaminated materials. We expect that a minimal amount of material will be removed from the property. The costs for construction-related remediation will be borne by this project.

2. Best Management Practices (BMPs). The BMPs specific to storm water runoff and dewatering during construction activities will be developed by the contractor, as required, to fulfill permit requirements under Sections 401 (Water Quality Certification), 402 (National Pollutant Discharge Elimination System [NPDES)], and 404 (Department of the Army permit) of the Clean Water Act. BMPs to minimize water quality impacts during dredging are being developed as part of the approval process under a Section 401 (Clean Water Act) Water Quality Certification application. All of the above-mentioned permits and certifications are subject to Department of Health (DOH) approval. Appropriate options for BMPs are discussed in the appropriate sections of chapter in the Final EA. While BMPs have not been finalized, compliance with DOH requirements will assure that the final design of the BMPs, properly applied during project construction, will afford adequate protection of State waters.

3. The Harbors Division is processing the Oahu Commercial Harbors 2020 Master Plan Environmental Impact Statement (EIS). The EIS will address the cumulative effects (climate, tsunami, topography and soils, surface hydrology, drainage, flood hazards, ground water, coastal water, terrestrial biology, threatened and endangered species, hazardous and solid waste materials, traffic, noise, vibration, air quality, archaeological, historic and cultural characteristics, recreation, visual, impacts to scenic vistas and view planes, socioeconomic conditions, water supply, wastewater, power and communications, energy consumption, environmentally sensitive areas) of the projects planned for construction within the next five years. These projects include the Cruise Passenger Terminal at Pier 2, Construction of Piers 12-16, the Excursion Vessel Terminal at Piers 24-27; Lay Berths in Keehi Lagoon, General Cargo Yard at Piers 19-20; Neobulk Cargo Yard at Piers 31-34, Excursion Vessel Accommodations at Piers 5-7, and Extension of Bunker Fuel Lines at Piers 28-29.

   Environmental studies of projects which are currently under construction or which will begin before the EIS is completed will be incorporated by reference into the EIS. These projects include: the Domestic Fishing Village at Piers 36-38; Interisland Cargo Yard at Piers 39/40, and Barbers Point Deep Draft Harbor Expansion and Related Improvements. If required, additional environmental studies will be conducted to address any cumulative, significant effects of these projects.

The EIS will also incorporate the environmental studies conducted by McCabe Hamilton & Renny for their Maritime Office Building at Pier 23 and the Corps of Engineers for their dredging of Keehi Lagoon.

A new Section 4.3.5 is included in the Final EA to present this information.

4. The proposed project will not significantly impact the Hart Street Wastewater Pump Station. In the short-term, construction activities will be coordinated between the city and state to prevent impact on the station's existing access or utility services. Any construction activities associated with the proposed project that have the potential to conflict with planned improvements to the pump station will be deferred until the pump station is completed. The proposed project will have no impact on the station's pumping capacity as the Fishing Village wastewater system will not connect to this pump station.

   Operational odor from wastewater pump station was not identified as having any significant adverse environmental impact in the *Final Environmental Assessment Hart Street Wastewater Pump Station Force Main Replacement.*

5. Agencies and individuals consulted during the assessment process are listed in Chapter 7 of the Final EA. Public participation was an integral part of the Fishing Village scoping process. Over 60 harbor and commercial fishing businesses were invited to informational meetings held in December 1997. In addition, the proposed Fishing Village was planned as a part of the *Oahu Commercial Harbors 2020 Master Plan.* The Master Plan was a cooperative effort involving over 100 government agencies, commercial and industrial businesses, tourism industry representatives, economists, environmental groups, concerned citizen groups, and individuals. Attendance lists and participant lists for the various public meetings are included in an Appendix to the Final EA.

6. Findings and reasons for supporting the FONSI. Chapter 6 of the Final EA, has been expanded based on the format for addressing significance criteria forwarded by your office.

We thank you for your comments and your interest in this project.