

KEWALO BASIN

LANDSIDE FACILITIES

123065

15 APRIL 1986

Mr. Adam Vincent, Deputy Director
Department of Transportation, Harbors Division
79 Nimitz Highway
Honolulu, Hawaii 96813

SUBJECT: Kewalo Basin Master Plan

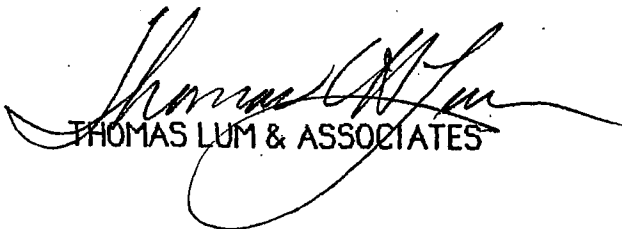
Dear Adam Vincent:

Transmitted are five final copies of the Kewalo Basin Master Plan, Landside Facilities. This final plan incorporates the comments and revisions supplied by DOT on April 2, 1986.

This master plan has been carefully prepared, taking into account both the 1981 Kewalo Basin Task Force Report and the current conditions and demands that prevail at this harbor. During the course of the project we have met many times with your staff and the users/tenants of the harbor. We feel confident that this master plan will serve as a useful document in anticipating both the immediate and long range improvements that are necessary in maintaining the Kewalo Basin as a safe and efficient boat harbor.

It has been a pleasure working with the Department of Transportation, Harbors Division on this project, and wish to express our gratitude to your staff for their ceaseless assistance.

Yours Truly


THOMAS LUM & ASSOCIATES

KEWALO BASIN MASTER PLAN
Landside Facilities

prepared for
DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION

prepared by
MICHAEL S. CHU, LAND ARCHITECT

APRIL 1986

TABLE OF CONTENTS

	page no.
1. INTRODUCTION.....	1
1.1 PROJECT SITE.....	1
1.2 BACKGROUND.....	1
1.3 KEWALO BASIN TASK FORCE REPORT.....	4
1.4 PROJECT OBJECTIVES.....	8
2. EXISTING CONDITIONS.....	10
2.1 LAND USE AND JURISDICTIONAL BOUNDARIES.....	10
2.2 WATERSIDE IMPROVEMENTS.....	15
2.2 EXISTING USERS AND TENANTS.....	16
2.3 INFRASTRUCTURE.....	18
3. MASTER PLAN.....	19
3.1 ALA MOANA BLVD. EDGE.....	19
3.2 WAIKIKI EDGE.....	21
3.3 TRIANGLE PENINSULA.....	22
4. COST ESTIMATE.....	24
4.1 ALA MOANA BLVD. EDGE.....	24
4.2 WAIKIKI EDGE.....	25
4.3 TRIANGLE PENINSULA.....	26
5. BIBLIOGRAPHY.....	33

LIST OF EXHIBITS

	page no.
EXHIBIT 1: PROJECT LOCATION	2
EXHIBIT 2: KEWALO BASIN TASK FORCE, PREFERRED PLAN.....	3
EXHIBIT 3: DEVELOPMENT PLAN LAND USE MAP.....	11
EXHIBIT 4: KAKAAKO SPECIAL DESIGN DISTRICT, USE PRECINCTS.....	12
EXHIBIT 5: KAKAAKO SPECIAL DESIGN DISTRICT, HEIGHT LIMITS.....	13
EXHIBIT 6: HAWAII COMMUNITY DEVELOPMENT AUTHORITY, DISTRICT PLAN.....	14
EXHIBIT 7: INVENTORY.....	27
EXHIBIT 8: MASTER PLAN, ALA MOANA & WAIKIKI EDGES.....	28
EXHIBIT 9: MASTER PLAN, TRIANGLE PENINSULA.....	29
EXHIBIT 10: SEWER & WATER MASTER PLAN, ALA MOANA & WAIKIKI EDGE.....	30
EXHIBIT 11: SEWER & WATER MASTER PLAN, TRIANGLE PENINSULA.....	31
EXHIBIT 12: BUILDING LAYOUT.....	32

1. INTRODUCTION

1.1 Project Site

Kewalo Harbor or better known as Kewalo Basin is located along the southern coast of Oahu between downtown Honolulu and Waikiki. The project site is fronted by Ala Moana Blvd. and is immediately Ewa of Ala Moana Beach Park. It is approximately 55 acres in size (including land and water). The land mass consist of approximately 23 acres of which 12 acres are leased or on revokable permits. The balance of the land is used for roadways, parking, outdoor storage and other open space uses.

1.2 Background

"During the 1980 Hawaii Legislature, Senate Resolution No. 7 and House Resolution 374 were adopted to study the maritime needs, make a systematic determination of the future uses of facilities at Kewalo Basin and Honolulu Harbor, and to report siting plans for a commercial fishing industry. Responding to these Resolutions, Govenor George R. Ariyoshi commissioned the Kewalo Basin Task Force (KBTF) to determine solutions to the existing and projected overcrowding at Kewalo Basin."

The efforts of the KBTF, under the chairmanship of Homer A. Maxey, was completed and submitted to the Govenor on January 7, 1981. It was accepted and approved by signature on January 26, 1981. The KBTF report recommends broad improvements for the physical development of Kewalo Basin, including a schematic plan indicating new berthings and general land use patterns.

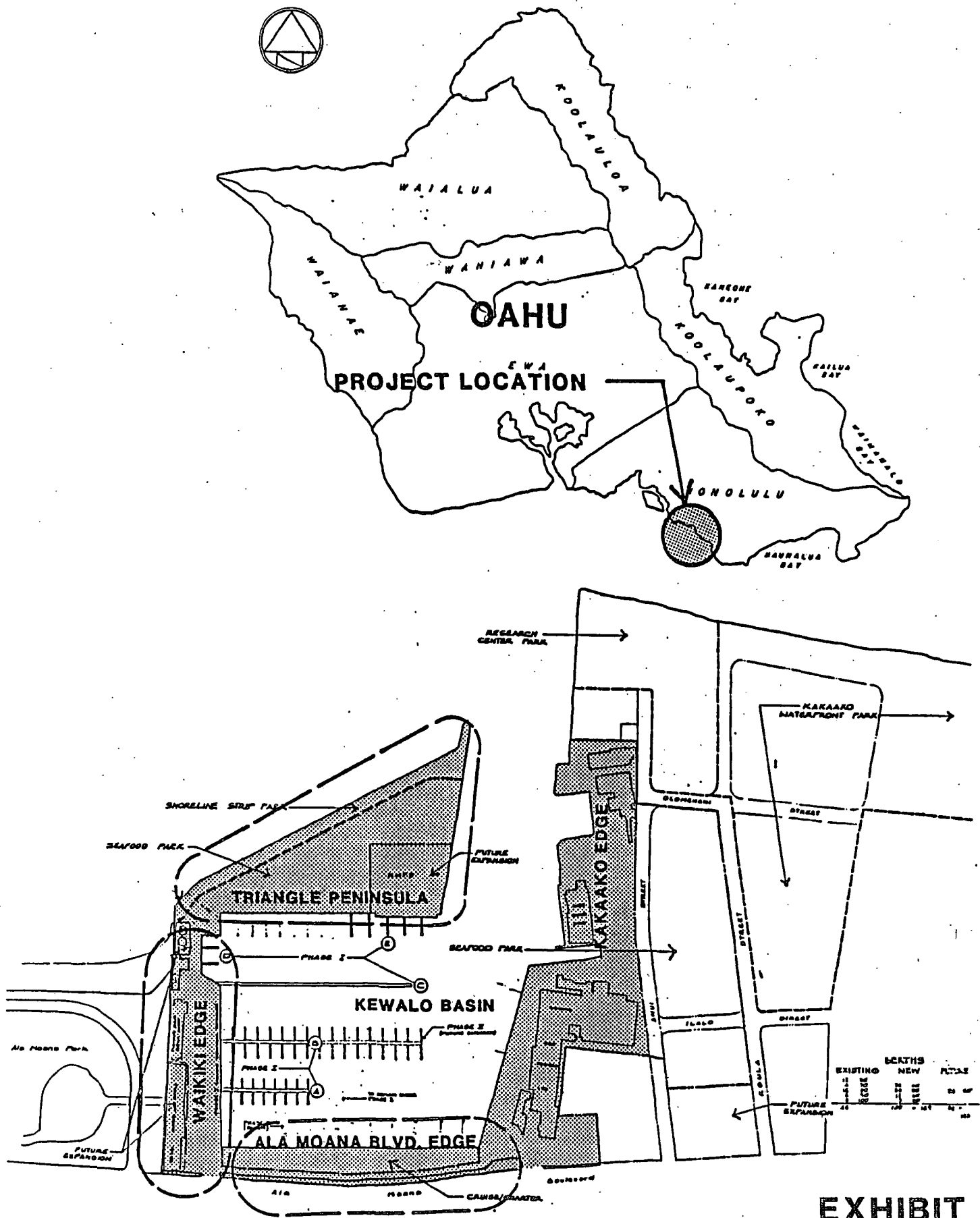


EXHIBIT I
PROJECT LOCATION

This report is an extension of the 1981 Kewalo Basin Task Force Report in that it develops the KBTF recommendations into a detailed master plan. It was prepared under the direction of the Department of Transportation, Harbors Division and has been supplemented with a series of briefings with the various users and tenants of Kewalo Basin, several of whom were members of the KBTF. This report focuses on landside facilities. Improvements to the waterside facilities have been conducted (new berthing, dredging, etc.) under a separate phase of this project and is near the point of construction.

1.3 Kewalo Basin Task Force Report

The principal objective of this plan is to maintain Kewalo Basin as a safe, modern and efficient boat harbor, servicing a variety of tenants and the general public. As an extension of the KBTF report, this project also seeks to fulfill the recommendations of the KBTF. These recommendations are listed below (**in bold**) with additional comments which update and further define the objectives of this plan.

Alleviate traffic congestion within the harbor and at intersections.

Vehicular congestion occurs primarily along the Ala Moana Blvd. edge near Fisherman's Wharf and is acute during loading and off loading of the cruise boats. This problem is compounded by the bottleneck caused by the existing cruise boat building. One can expect an increase in vehicular circulation along the Waikiki edge when the new berthings are constructed and as the triangular peninsula is developed.

Not mentioned in the KBTF recommendations, but strongly emphasized in subsequent meetings with the users and tenants was the desire to beautify the harbor's appearance, especially the Ala Moana Blvd. edge as it is highly visible from the roadway.

Request the Legislature to reconsider the boundaries for H.C.R. No. 118 and H.R. 540 (House of Representatives, Ninth legislature, 1978) to exclude approximately 6 to 8 acres of land Ewa of Ahui Street from the planned Kakaako Waterfront Park and redesignate that area for commercial fishing infrastructure (Seafood Park).

In the early 1980's the fishing industry was in a state of tremendous growth, spurred on by the frequent docking and unloading of large purse seiner boats. It was perceived that this trend would continue, giving rise for an expansion of the commercial fishing infrastructure. Recent events however have changed this perception. Castle and Cooke Inc. has decided to drop the Hawaii based tuna packing operations (Bumble Bee Tuna). According to Dwayne Black of Castle and Cooke, the facilities and current lease have been sold to a buyer. Future plans for the cannery are sketchy at this time, however it appears that the cannery operations will no longer provide a significant off loading port for the large purse seiners. As such, recommendation no. 2 of the KBTF is no longer valid at this time.

Improvements in parking, lighting, utilities, office space and comfort stations.

These types of improvements are necessary to maintain the overall safety and efficiency of Kewalo, and are applicable throughout the harbor. The demand for vehicular parking is expected to increase as an additional 69 berthings are added, bring the total berthing capacity to 191. This increase in parking can best be accommodated along the Waikiki edge and at the triangular peninsula. Utilities, particularly a sewer hookup to the peninsula, new water system and electrical system is needed in certain areas. According to discussions with current tenants, office space is also in demand. Public restrooms should be provided at each side of the harbor.

Clear and grade the unused area on the triangular peninsula for development of commercial fishing infrastructure needs and fence off a 40 feet wide, approximately one acre parcel for the shoreline strip park.

The triangle peninsula is a valuable piece of real estate, fronting water on three sides. Its lack of adequate sewer and water capacity, and the deposit of earth fill has kept the area greatly undeveloped for many years. Similar to recommendation no. 2, the peninsula was originally targeted for "Seafood Park." Similar to the discussion following recommendation no. 2, this concept no longer has strong justification. The peninsula however is still an important land mass for harbor operations. As the Ala Moana Blvd. and Waikiki edges are improved, several relocation moves will be necessary. In

addition, most aku boats berth along this edge of the harbor making the peninsula an obvious location to house their landside requirements (such as the net repair shed, net drying area, storage lockers). Public access to the shoreline (for recreational fishing, surfing, etc.) must be provided.

In addition to the recommendations listed above, several long range recommendations were proposed. These long range recommendations and a discussion of each is as follows:

Continue landside improvements as needed.

This recommendation can be accomplished through Department budgetary planning. This will be necessary in meeting the full development of the master plan and the continued real property maintenance that is required. Tying this recommendation to the master plan is a cost estimate for Department budgetary planning.

That a concept of having the University of Hawaii, National Marine Fishery Service, and the Hawaii Aquarium be consolidated with the U.H. Biomedical and Look Laboratory complex to create a Research Center Park on the Kewalo- Ft. Armstrong peninsula be investigated by these industries. Scheduled moves of these and other displaced Kewalo Basin tenants to be based on respective funding and site availability for each planning phase timetable.

Both the University of Hawaii Laboratory and NMFS are tenants at Kewalo Basin (revokable permit), however the need for their eviction

is not anticipated within the framework of this master plan. The Research Center Park concept goes beyond the scope of this project and the responsibilities of the Department of Transportation. Exploratory planning however, is currently being conducted by the State for a Hawaii Ocean Center (HOC) which in concept, appears similar to this recommendation. The triangle peninsula is one of several sites that they are studying.

That the land area within Kewalo Basin, used by interest other than the Commercial Fishing Industry, be acquired and identified as it becomes available for use solely in support of the fishing industry.

See discussion on recommendations no. 2 and 4.

1.4 Project Objectives

Based on the KBTF recommendations, discussions with the Department of Transportation, Harbors Division and several briefings with the tenants/users of Kewalo Basin, a specific list of objectives were formulated for this planning effort. These objectives are listed below in accordance with the geographical areas of the harbor.

Ala Moana Blvd. Edge

- 1. Demolish existing cruise boat building**
- 2. Move bus parking closer to cruise boat berthings**
- 3. Establish through traffic route**
- 4. Renovate existing charter boating building (2 stories) for commercial office space with public restrooms at ground level**
- 5. Provide trash collection area**

6. Maintain sufficient public parking
7. Enhance visibility of harbor with design details and landscaping
8. Provide pedestrian circulation along water's edge and crossing to bus parking. Provide for vehicular loading zone
9. Improve electrical system along piers

Waikiki Edge

1. Provide for through traffic circulation to peninsula.
2. Provide maximum amount of parking.
3. Renovate existing net repair shed into two commercial office (lease) building. Relocate harbor agent office to building. Provide public restrooms.
4. Establish loading/unloading work space in front of existing McWayne Marine Supply building and warehouse.
5. Establish sewer easement through area.
6. Provide pedestrian circulation and loading zone along water's edge.

Triangle Peninsula

1. Grade peninsula for commercial/ industrial/ public use.
2. Provide necessary sewer system.
3. Relocate net repair shed and provide necessary landside facilities.
4. Provide public restrooms, storage lockers and trash collection area.
5. Provide adequate public parking and public shoreline access.
6. Provide pedestrian circulation and vehicular loading along water's edge.
7. Designate area of shoreline strip park and provide pedestrian and vehicular access.
8. Subdivide into usable parcels for general leasing.

2. EXISTING CONDITIONS

2.1 Land Use and Jurisdictional Boundaries

The entire water and land mass that make up the 55 acres of Kewalo Basin is owned by the State of Hawaii and administered by the Department of Transportation, Harbors Division. Several governmental land use controls have direct influence upon the project area. These controls are identified and are briefly described below.

Development Plans

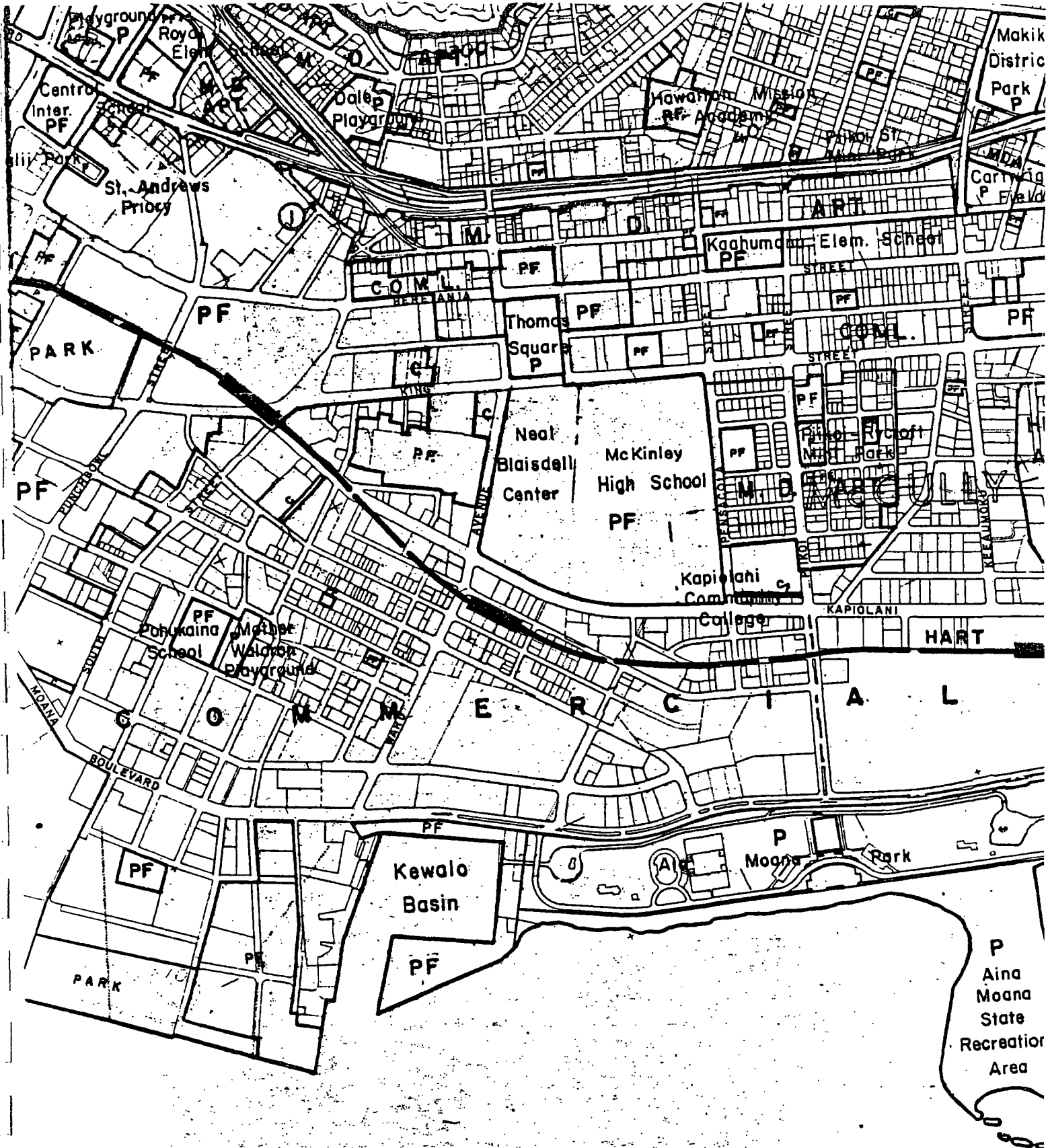
The Development Plan (Primary Urban Center) of the City and County of Honolulu designates the Ala Moana Blvd. edge, the Waikiki edge and the Triangular Peninsula as Public Facility (PF). The Kaka'ako side of the harbor is designated as Commercial. Exhibit 3 illustrates a portion of the Development Plan's Land Use Map for the area.

Kaka'ako Special Design District

City and County zoning is determined by the Kaka'ako Special Design District Ordinance (Rev. Ord. No. 81-3,). This Ordinance establishes a "Marine Precinct" for all Kewalo Basin lands with a building height limitation of 25 feet. Exhibits 4 and 5 illustrates the Use Precincts and Height Limits of the Kaka'ako Special Design District.

Special Management Area

The entire project area is within the Special Management Area (SMA). The SMA requirements are administered by the City and County of Honolulu through the Department of Land Utilization.



**EXHIBIT 3
DEVELOPMENT PLAN**

KAKAAKO SPECIAL DESIGN DISTRICT

**EXHIBIT A
USE PRECINCTS**

LEGEND:

- Mx** MIXED USE
- IS** INDUSTRIAL SERVICES
- WI** WATERFRONT INDUSTRIAL
- M** MARINE
- P** PUBLIC USE

ORDINANCE NO. 80-58 DATE: 7-23-80

REVISED ORDINANCE NO. 81-3 DATE: 2-11-81

EXHIBIT 5 KAKAAKO SPECIAL DESIGN DISTRICT HEIGHT LIMITS

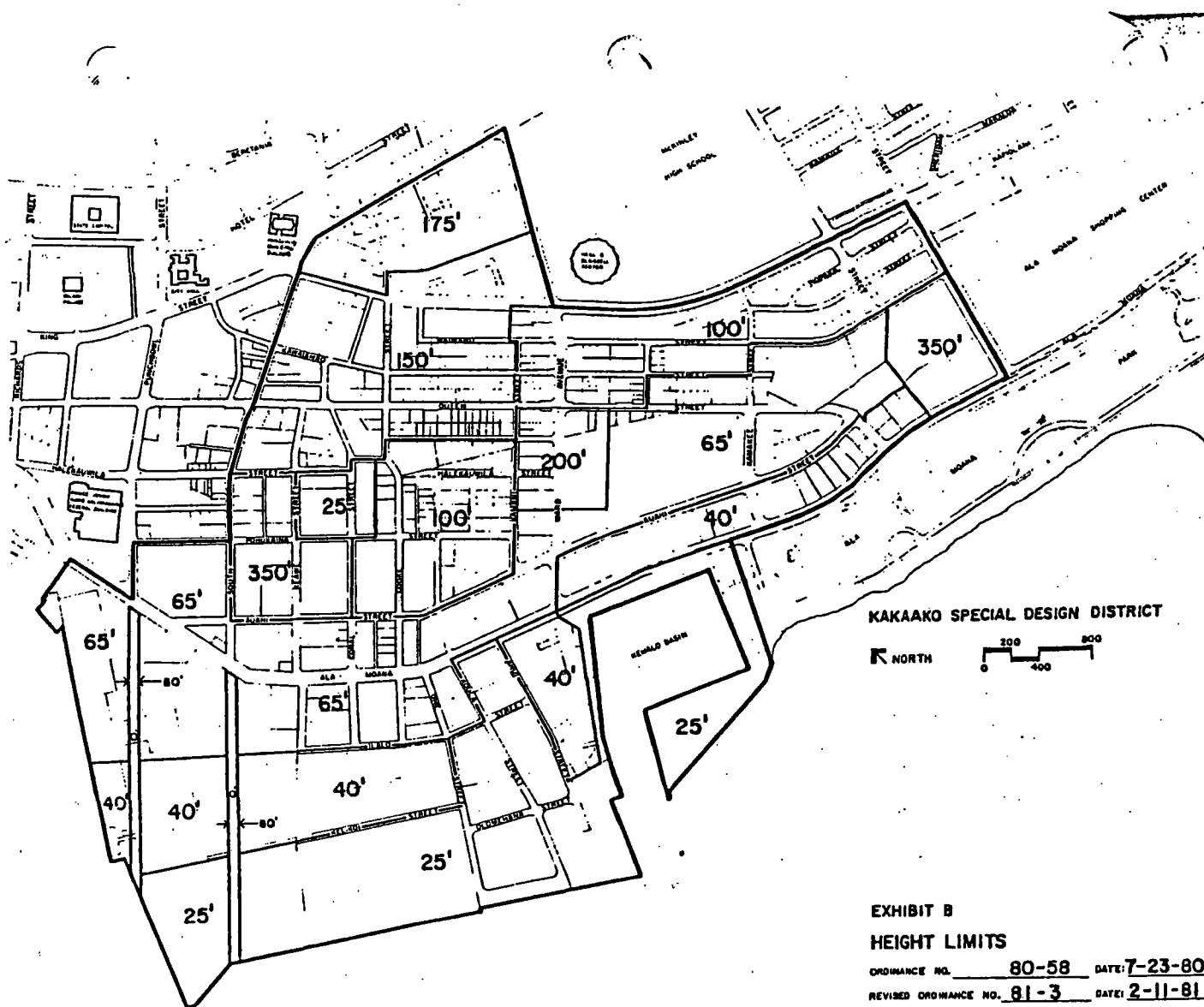
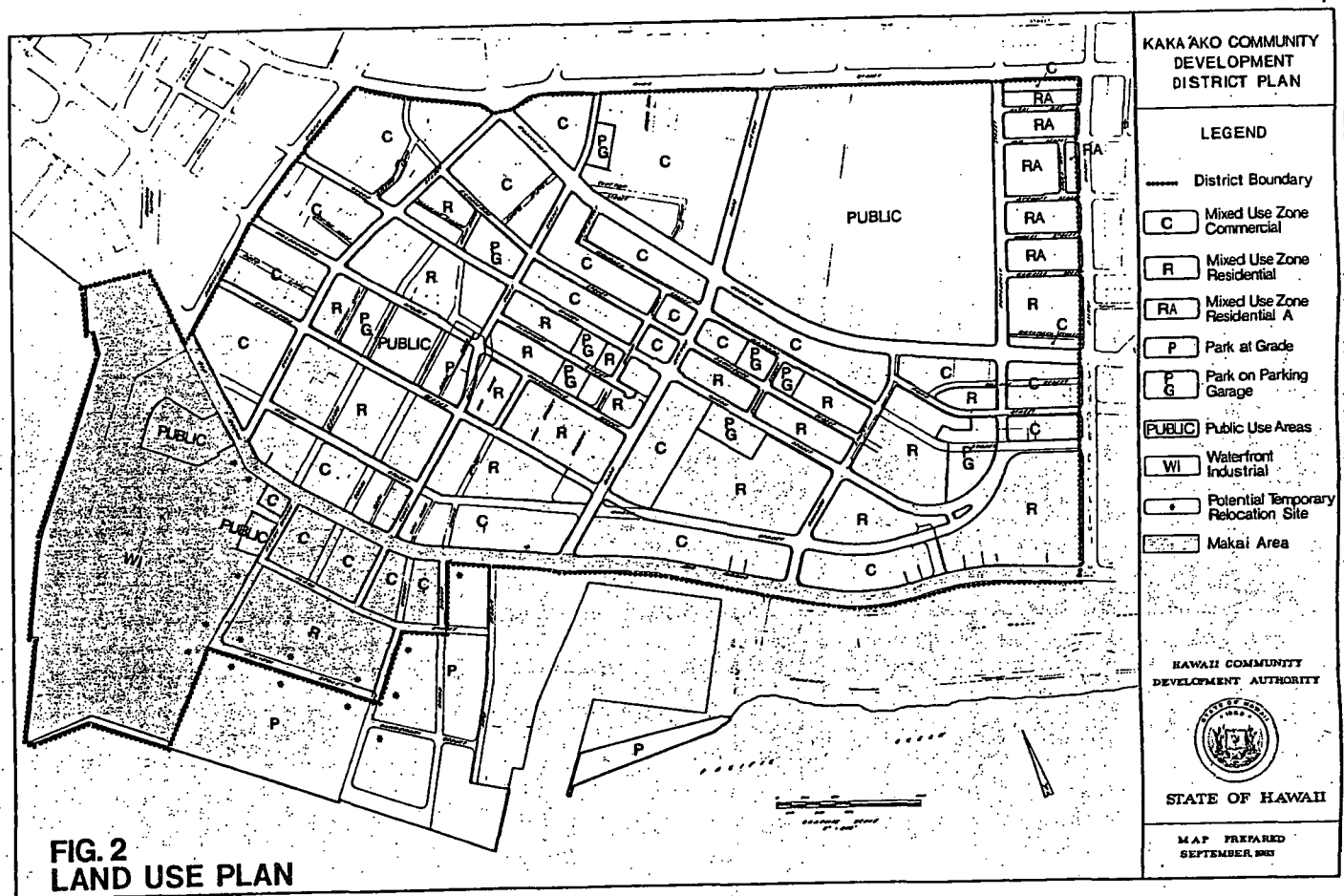


EXHIBIT 6 HAWAII COMMUNITY DEVELOPMENT AUTHORITY DISTRICT PLAN



Hawaii Community Development Authority

The Hawaii Community Development Authority (HCDA) neighbor's Kewalo Basin. While HCDA has no direct jurisdictional authority over Kewalo Basin, their ambitious redevelopment plans (Makai Area Plan, 1983) for Kakkako is a constant reminder of the magnitude of changes one may expect in the coming decades. Of note are the Mix Use Zone, Commercial (C) and the Mix Use Zone, Residential (R) that are designated in the Makai Area. Exhibit 6 illustrates the land use plan for the entire Kaka'ako District.

Other noteworthy elements of the plan include; (1) bikeway route along the Ala Moana edge of Kewalo Basin; (2) two new drainage box culverts emptying into Kewalo Basin; and (3) the Kaka'ako Waterfront Park. This Waterfront Park is in two sections. The first section is a large park area bordering the Kaka'ako side of the harbor. The second section is a 40 ft. wide shoreline strip park running the complete length of the Triangular Peninsula. For planning purposes, both parks are indicated on the HCDA plans but are the responsibility of the Department of Land and Natural Resources.

2.2 Waterside Improvements

Improvements to the piers at Kewalo Basin have been designed with construction scheduled to begin soon. These improvements have a direct bearing on the landside planning in the following respects:

Boat berthings will increase from 122 slips to 191. This will place greater demands on vehicular parking and traffic circulation, rest

rooms, commercial office space, and other landside amenities.

Three new piers will be constructed at the Waikiki edge of the harbor, shifting the emphasis of activity and circulation from the Ala Moana Blvd. edge to the Waikiki edge.

2.3 Users and Tenants

Exhibit 7 entitled, "Inventory: Existing Buildings & Land Use" identifies 35 separate structures within the project study area. Listed on Exhibit 7 are the tenants, use of the structures (such as ticket booth), a visual assessment of the structure's physical condition, and TMK information.

Most tenants are on a revokable permit meaning they are is on a month to month basis. A few exceptions can be found however, such as GRG Enterprises, Inc., Spencecliff Corp., Castle and Cooke, and McWayne Marine Supply. Such tenants have leases of various lengths.

For discussion purposes, the tenants and users of the harbor can be separated into four distinct categories.

Cruise Boat Operators- The Pearl Kai II and Aikane are examples of cruise boats. They provide excursions such as the Pearl Harbor cruise and sunset dinner cruises. Their market is primarily the tourist industry. These boats are docked along the Ala Moana side of the harbor. Twenty four bus stalls (in tandem) are provided for the buses that furnish transportation for these cruise boats. Cruise boat operators also utilize several landside facilities. These facilities include the cruise boat building (bldg. no. 10,

see Exhibit 7), several ticket booths, and a bus parking area at the triangle peninsula.

Charter Boat Operators- The charter boats provide sport fishing services. Most charter boats are berthed along the Ala Moana Blvd. and Waikiki edge of the harbor. Landside facilities include small ticket booths fronting their berthing locations and offices in the charter boat building. Passengers are primarily tourist however a small percentage of their business may consist of local fishing enthusiasts. Long term parking is important for cruise boat operators and their crew.

Commercial Fishing Boat Operators- These boats are located primarily along the triangle peninsula and the Waikiki edge of the harbor, as well as off the herring bone piers. Landside facilities include loading docks, net drying area and shed, gear storage, and fish auction operations. Long term parking is important for commercial fishing boat operators and their crew members.

Support Facilities- This category includes a wide range of land based facilities with directly support the harbor activities. They include such facilities as fuel supply, boating supplies and display area, gear storage, restaurants and lunch wagon stalls, etc. Other facilities which are not directly related to harbor activities include the University of Hawaii laboratory and the National Marine Fishery Service.

2.4 Infrastructure

Water- Kewalo Basin is serviced with an 8" water line which is adequate for the present and project demands.

Sewer- Kewalo Basin is serviced with an 8" sewer line however this service does not extend out to the triangle peninsula. Exhibits 10 and 11 illustrates the extent of this service and the new sewer line that is proposed by this master plan.

Electrical- Kewalo Basin is serviced by electrical power on overhead lines. Relocation of these poles are not anticipated however many of the parking lot lights must be relocated to accomodate the new parking layout. Electrical service to the piers along the Ala Moana Blvd. edge is old and in need of repair. Also in disrepair are the low level pedestrian lights which are located with the 10 ft. wide pedestrian zone.

3. Master Plan

The Kewalo Basin Master Plan consists of several types of improvements aimed at renovating, repairing and modernizing the harbor. The master plan concept is represented by Exhibits 8 through 11.

Master Plan, Exhibit 8 and 9 - This two part Exhibit illustrates the land use and physical design changes/improvements that are proposed.

Sewer and Water Master Plan, Exhibit 10 and 11 - This two part Exhibit illustrates the existing utilities and utility improvements that are proposed.

3.1 Ala Moana Blvd. Edge

Improvements at the Ala Moana Blvd. edge of the harbor shall consist of the following:

Land Use- No land use changes are proposed.

Demolition- The existing "Cruise Boat" building shall be demolished in order to relieve the traffic congestion that occurs at that corner of the harbor. The building will not be replaced. All existing tenants of the building are on revokable permits and may relocate to other areas within the harbor as space becomes available.

Structures- The existing "Charter Boat" building will be renovated from a single story to a two story building. The renovation is expected to

yield approximately 6000 S.F. gross of which approximately 500 S.F. at ground level will be used for public restrooms. The balance of the floor area will be used for commercial office space. Exhibit 12 illustrates a schematic layout for this renovation work. A nautical theme is suggested with a strong visual orientation towards Ala Moana Blvd. The building shall not exceed the 25 ft. height limitation imposed by City and County zoning codes. Existing parking is adequate to service the building.

Utilities- The existing electrical system servicing the piers along the Ala Moana Blvd. edge shall be improved. Old and worn wiring, conduits, fuse boxes, and outlets will be replaced. Existing light fixtures will be repaired and relocated as necessary.

Parking and Circulation- The Ala Moana Blvd. edge of the harbor is designed for approximately 84 standard parking stalls (there are currently 76 parking stalls). The 24 bus parking stalls will be maintained in approximately the same location. Ingress and egress from Ala Moana Blvd. will remain the same with the exception of an additional exit near McWayne Marine Supply and two continuous exit lanes at the Ward Ave. intersection. Raised islands and concrete curbs (6") shall be used to define parking and traffic circulation. A 10 ft. wide pedestrian zone and a 10 ft. wide service lane will remain along the bulkhead and will be separated by a bollard system. Two wide pedestrian crossings will be marked in the vicinity of the bus parking area. All areas will be resurfaced and restriped.

Landscaping- Landscape planting and irrigation will occur adjacent to the sidewalk along Ala Moana Blvd., around the renovated Charter Boat building and in place of the demolished Cruise Boat building.

3.2 Waikiki Edge

Land Use- No land use changes are proposed.

Demolition- No demolition is proposed.

Structures- The existing net shed shall be renovated. Exhibit 12 illustrates a schematic layout utilizing the existing building shell. This renovation is expected to yield approximately 15,000 S.F. gross of which approximately 600 S.F. will be used for public restrooms. The balance of the floor area will be for a new harbor agent office, storage and commercial office space. The net repair activities shall be relocated to a new structure at the triangle peninsula. The attached restaurant (Kewalo Ships Galley) shall remain with no improvements within the framework of this master plan. A trash enclosure is proposed adjacent to the renovated building.

Utilities- An 8" sewer system shall be routed through the area, providing the Waikiki edge and triangle peninsula with sewer service (see Exhibits 10 and 11 for location). Existing light fixtures and parking meters in the parking lot will be relocated according to new parking and circulation layout. Existing electrical poles will remain in place.

Parking and Circulation- The parking and traffic circulation system will be improved as illustrated in the Master Plan. A 26 ft. wide, one way circulation system will replace the existing two way system. An additional exit onto Ala Moana Blvd. (right hand turn only) will be provided. 141 single loaded parking stalls will replace the existing 134 stalls. Parking in front of the McWayne Marine Supply building will be eliminated and used solely for boat display and work space. A row of parking and a 10 ft. wide pedestrian zone will front the water's edge. No service lane is provided. Instead, several marked loading stalls will be provided (at right angles) in front of each new pier. The roadway fronting the University of Hawaii laboratory will be widened to 26 ft. carrying two way vehicular circulation.

Landscaping- Landscape planting will be provided around the renovated net shed.

3.3 Triangle Peninsula

Site Clearing- The dirt mound, all fencing and structures (with the exception of the National Marine Fishery Service) will be removed. The excess fill will be taken to a site yet to be determined. The peninsula will be graded and cleared for future tenants under lease.

Land Use- A 40 ft. shoreline strip park has been proposed by the Hawaii Community Development Authority for the makai portion of the peninsula. This 40 ft. strip is included in the Master Plan and shall be held in reserve for future park development. Repair to the existing seawall is in progress under previous submittals. Land uses other than those

allowable under the Marine zoning are not proposed.

Structures- A new multi-use metal/concrete structure is proposed. It will serve primarily as a net repair shed but will also house public restroom facilities and gear storage lockers. The structure will be one story with approximately 14,000 S.F. of floor space.

Utilities- The sewer line shall continue into the triangle peninsula as indicated on Exhibits 10 and 11. A sewer ejector station shall be located at the peninsula to supplement the system. The multi purpose loading dock will be equipped with sewer pump out facilities. The sewer line and the electrical poles shall be placed on the makai side of the road within a 20 ft. wide utility corridor. A sewer ejector station will be utilized and located near the Waikiki point of the peninsula.

Parking and Circulation- Circulation shall be provided with a 26 ft. wide roadway. A 10 ft. wide pedestrian zone and a 10 ft. wide service lane will be provided (parallel parking) following the bulkhead and terminating near the NMFS. A 30 ft. wide right-of-way adjacent to the NMFS will provide access for the lots at the tip of the peninsula. Emergency and maintenance vehicle access will be provide to the shoreline strip park. Approximately 144 paved parking stalls will be provided at the peninsula. Raised islands and curbs (6 inch ht.) shall be used to define the circulation and parking areas.

Landscaping- Landscaping will be provided around all new buildings.

4. COST ESTIMATE

The cost estimate for the Kewalo Basin Master Plan is separated into three parts based, on the physical layout of the harbor. This format does not necessarily represent a phasing program however improvements priority is placed on the Ala Moana Blvd. edge of the Harbor.

4.1 Ala Moana Blvd. Edge

The specific work items and estimated cost for the Ala Moana Blvd. side of the harbor are as follows:

1. Cruise Boat Building Demolition	\$ 20,000.
2. Charter Boat Building Renovation 6000 s.f. X \$75.	\$450,000.
3. Electrical System Renovations (Piers and Parking) Pier- Meter Center and Outlets Parking Lighting System Utility Work	\$ 96,000. \$ 40,000. \$ 12,000.
4. Islands and Curbs Conc. Curbs 1360 l.f. X \$15. Islands 5500s.f. X \$3.	\$20,400. \$16,550.
5. 10' Wide Pedestrian Zone 100 Bollards X \$350 Resurfacing 12,000s.f. X \$5 Pedestrian Light System	\$ 35,000. \$ 60,000. \$ 52,000.
6. Resurfacing and Stripping of Parking Area Resurfacing 82,610s.f. X \$1.70 Striping 1260 l.f. X \$1.	\$140,400. \$ 1300.
7. Relocation of Backflow Preventer	\$ 7000.
8. Landscaping	\$ 35,000.
Estimate	\$979,350.
Fee and Contingency	\$196,000.
Total	\$1,175,350.

4.3 Waikiki Edge

The specific work items and estimated cost for the Waikiki side of the harbor are as follows:

2. Relocation of Backflow Preventer	\$ 7000.
3. Parking Lot	
Islands 5000s.f. X \$3.	\$ 15,000.
Curbs 1430 l.f. X \$15.	\$ 21,450.
Resurfacing and Paving 9375s.f. X \$1.70	\$ 15,940.
Striping 2200 l.f. X \$1.	\$ 2200.
4. Electrical System	
Parking Light System	\$ 52,000.
Pedestrian Light System	\$ 25,000.
Utility Work	\$ 10,000.
5. 10' Wide Pedestrian Zone	
9495s.f. X \$5.	\$ 47,475.
6. Net Shed Renovations	
8750s.f. X \$40.	\$350,000.

Estimate \$546,065.
Fee and Contingency \$109,000.
Total \$655,065.

TOTAL COST ESTIMATE \$3,379,215.

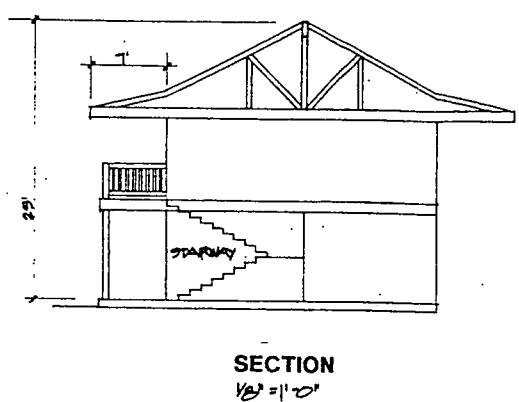
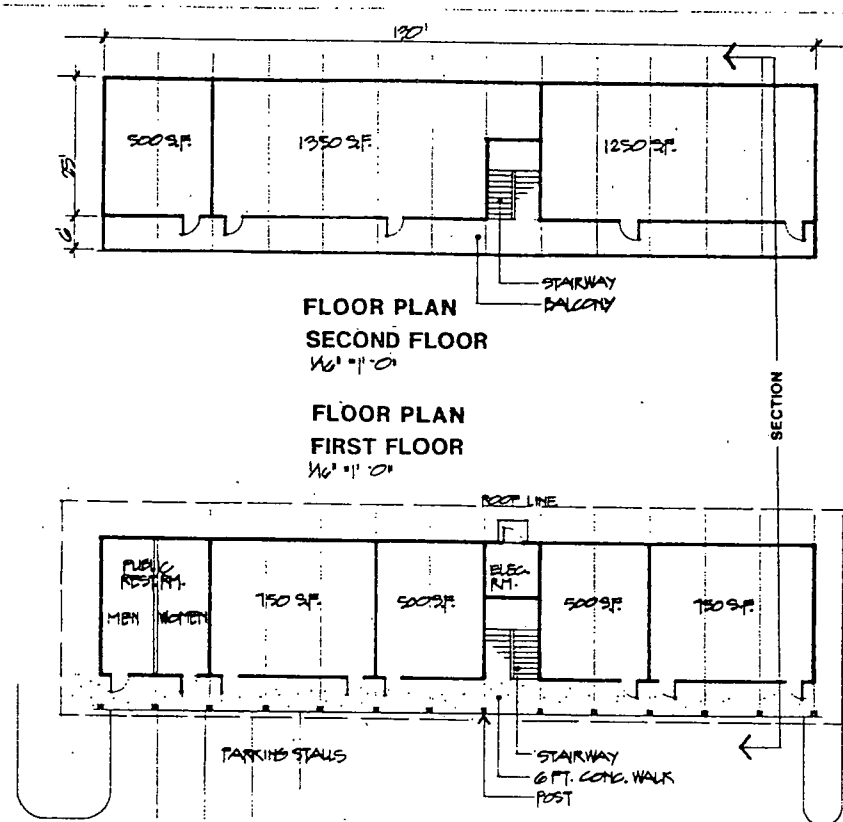
4.2 Triangle Peninsula

The specific work task and estimated cost for the Triangle Peninsula include the following:

1. New Net Shed with storage lockers and restroom 12,500s.f. X \$50.	\$625,000.
2. Sewer System	
Sewer Line	\$ 99,500.
Ejector	\$ 30,000.
3. Grading	\$ 50,000.
5. Fence	\$ 10,000.
6. Electrical System	
Parking Light System	\$ 42,000.
Pedestrian Light System	\$ 32,000.
Utility Work	\$ 10,000.
7. Parking Lot	
Islands 12,250s.f. X \$3.	\$ 36,750.
Curbs 2425 l.f. X \$15.	\$ 36,375.
Paving, Resurfacing 151,500s.f. X \$1.70	\$257,550.
8. 10' Wide Pedestrian Zone 6725s.f. X \$5	\$ 33,625.
9. Trash Enclosure	\$ 3000.
10. Landscaping	\$ 25,000.

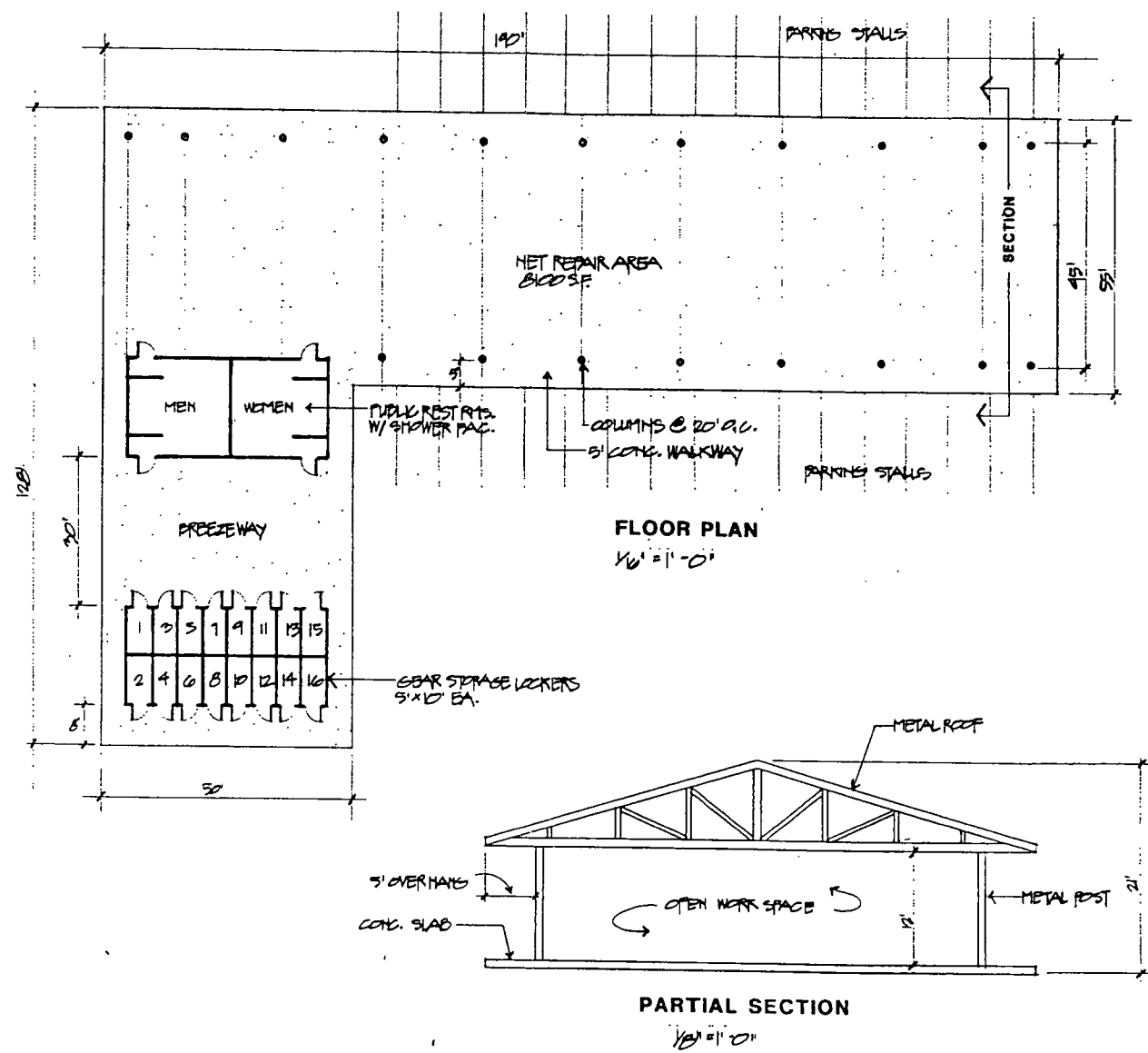
Estimate \$1,290,800.
Fees and Contingency \$ 258,000.

Total \$1,548,800.



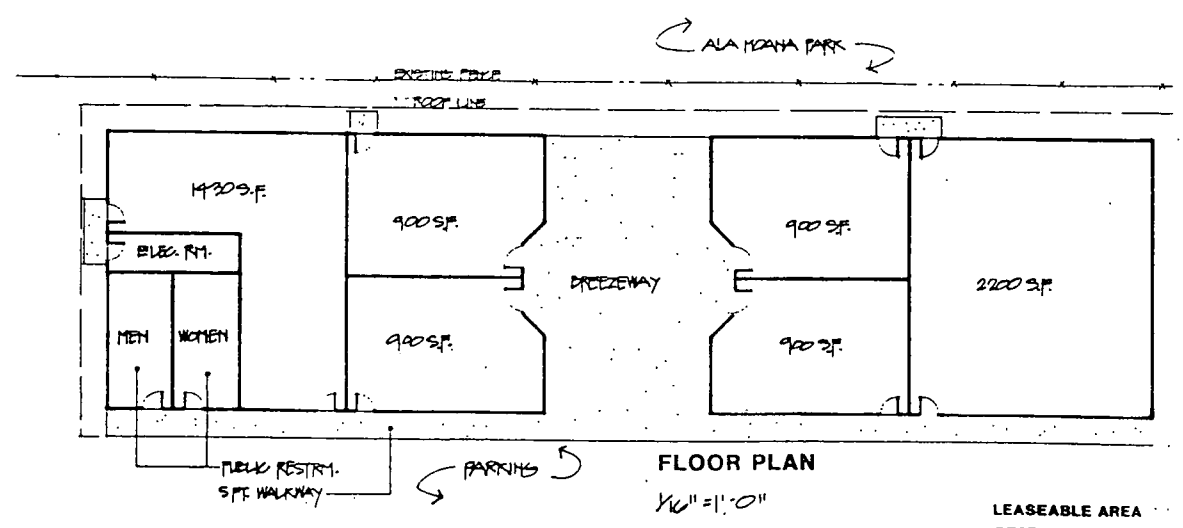
CHARTER BOAT BUILDING RENOVATION

FIRST FLR.	2500 S.F.
SECOND FLR.	3100 S.F.
RESTRM.	500 S.F.
STAIRS	300 S.F.
ELEC. RM.	100 S.F.
BALCONY	780 S.F.
7280 TOTAL S.F.	
5600 LEASEABLE S.F.	



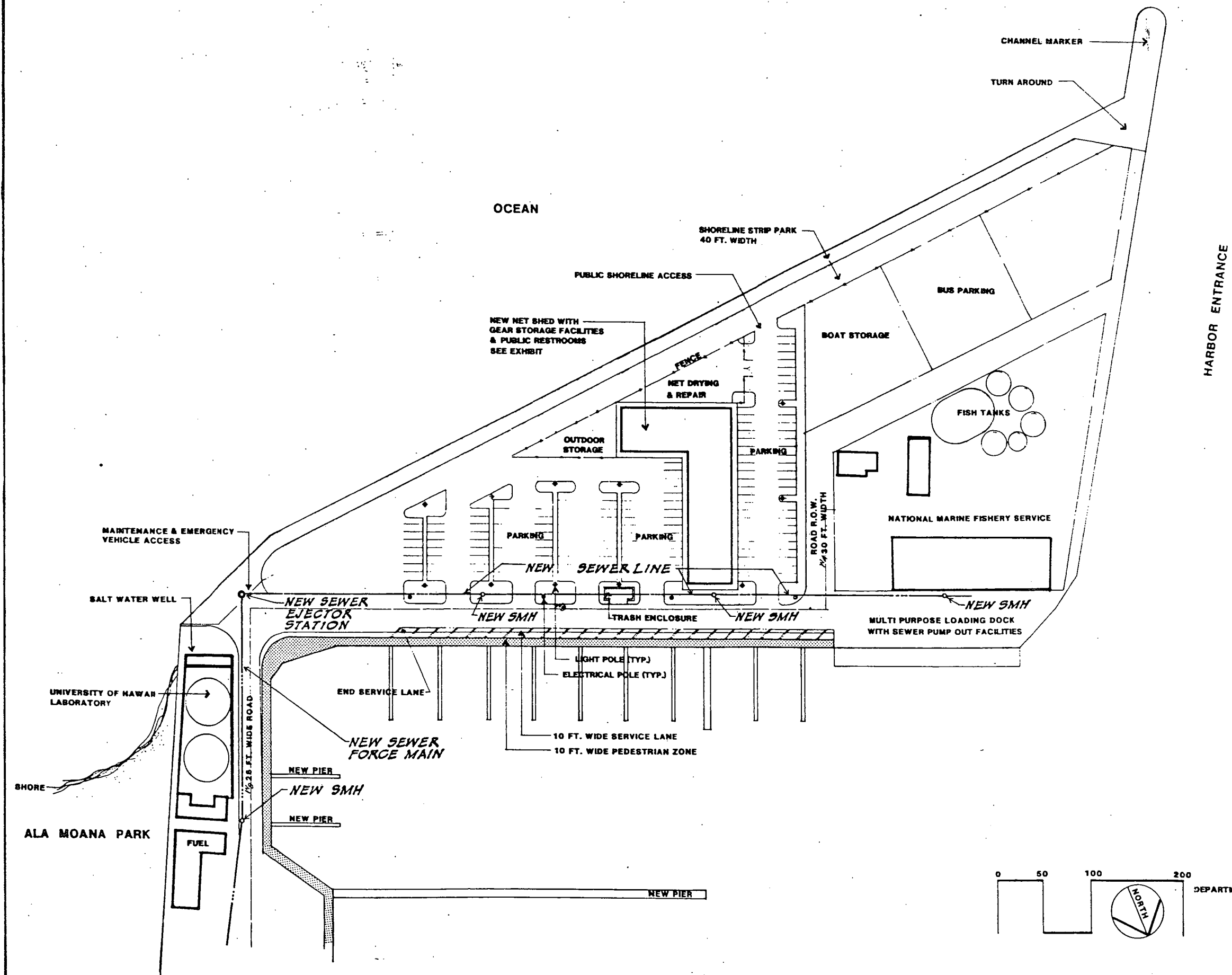
NEW NET SHED WITH STORGE LOCKERS & RESTROOMS

NET REPAIR AREA	8100 S.F.
RESTRM.	800 S.F.
STORAGE LOCKERS	800 S.F.
BREEZEWAY	1200 S.F.
10,900 TOTAL S.F.	

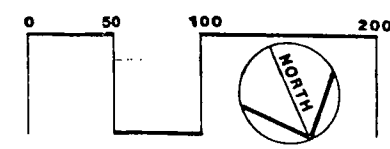


NET SHED RENOVATION

LEASEABLE AREA	7230 S.F.
RESTRM.	575 S.F.
ELEC. RM.	145 S.F.
6875 TOTAL S.F.	




REVISION	DATE	DESCRIPTION	BY	CHECKED BY
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.				
ENGINEERS SURVEYORS HAWAII, INC.				
ESH ENGINEERS SURVEYORS HAWAII, INC. 1001 KALANIANAʻOHE BLVD., SUITE 100 HONOLULU, HAWAII 96813				
EXHIBIT 11				
KEWALO BASIN SEWER & WATER MASTER PLAN TRIANGLE PENINSULA				
APPROVED				
Chief, Division of Engineering	Date	Chief, Planning and Engineering	Date	Chief, Board of Water Supply
Chief, Division of Waterworks	Date	Chief, Division of Water Supply	Date	Chief, Division of Water Supply



30

**KEWALO BASIN
SEWER & WATER
MASTER PLAN
ALA MOANA & WAIKIKI EDGES**

REVISION	DATE	DESCRIPTION						DRAWN BY	APPROVED
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION									
ENGINEERS SURVEYORS HAWAII, INC.									
BY _____ DATE _____ FTE TOTAL PROJECT NO. DAY(S)									
							ENGINEERS SURVEYS HAWAII, INC. 6075 KALIHI PI. SUITE 6-200 WAILUA, O.H., HAWAII 96793		
<h1 style="margin: 0;">EXHIBIT 10</h1>									
<p><i>KEWALO BASIN</i></p> <p><i>SEWER & WATER</i></p> <p><i>MASTER PLAN</i></p> <p><i>A LA MOANA & WAIKIKI EDGES</i></p>									
APPROVED:									
<i>(Signature)</i> CHIEF, Division of Engineering					<i>(Signature)</i> CHIEF, Planning and Engineering, Board of Water Supply				

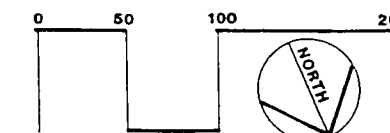
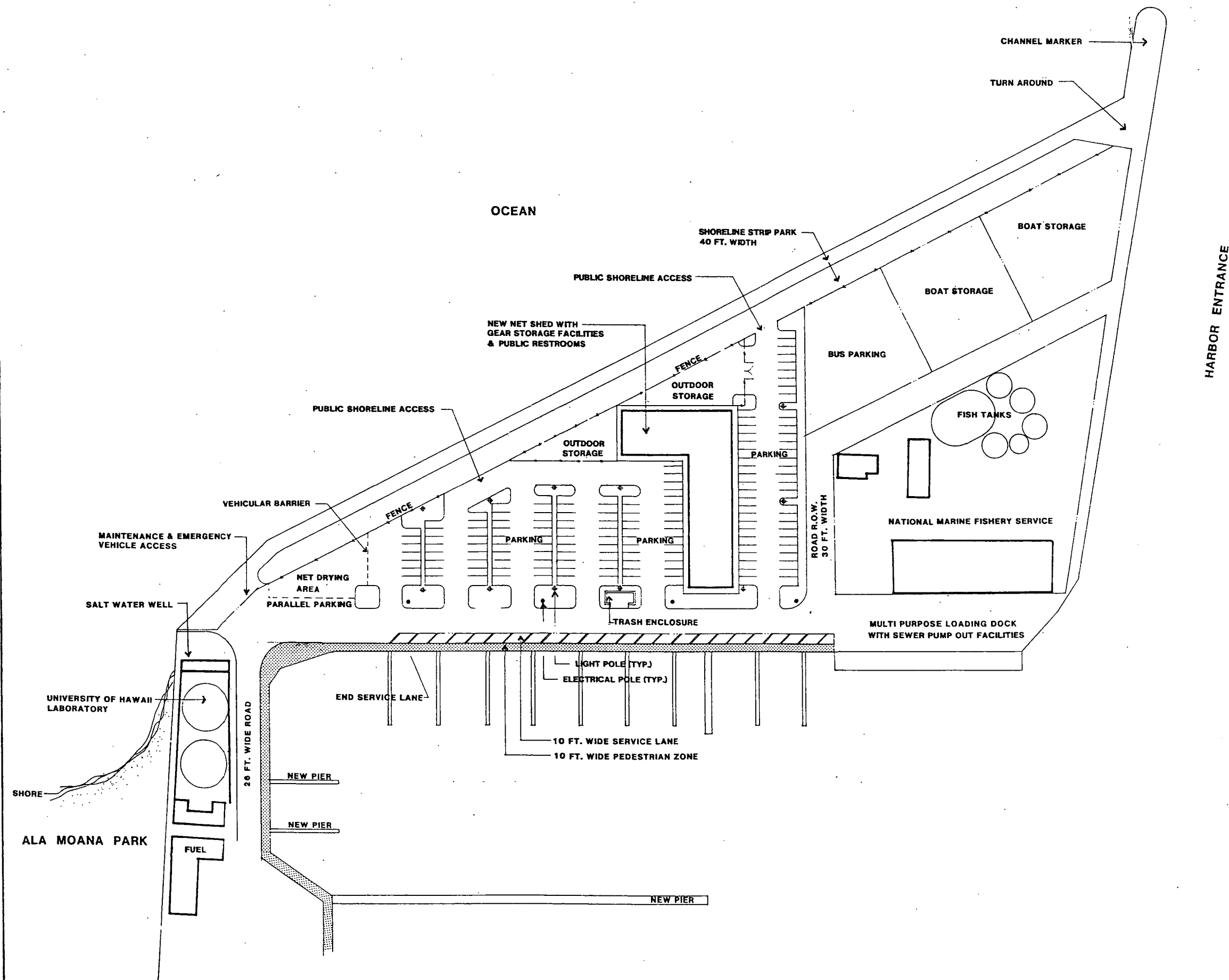


EXHIBIT 9
KEWALO BASIN MASTER PLAN
TRIANGLE PENINSULA

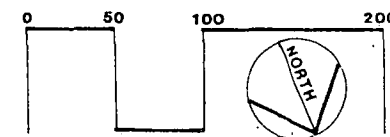
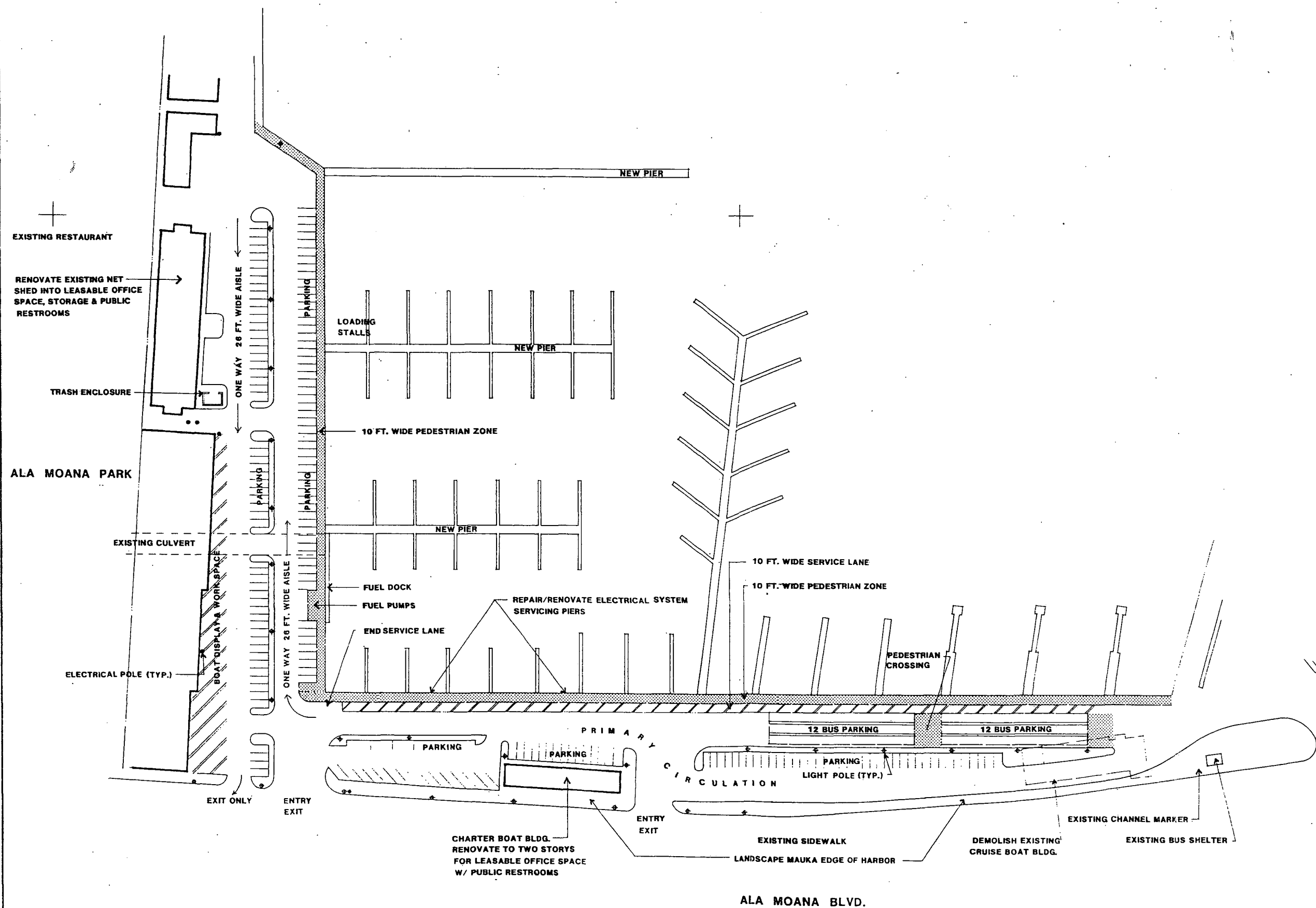


EXHIBIT 8
KEWALO BASIN
ALA MOANA & WAIKIKI EDGES

STRUC. NO.	TENANT	USE	STRUC. COND.	TMK
1	NATIONAL MARINE FISHERIES SERVICE	RESEARCH	POOR	2-1-58-81, 84
2	L. AGARD JR.	STORAGE	POOR	70
3	UNIVERS. HAWAII	RESEARCH	POOR	80
4	L. KUBURA	FUEL	FAIR	89
5	Z. OZOA	RESTAURANT	FAIR	87
6		NET REPAIR	FAIR	1
7	AMFAC	STORAGE, REPAIR	FAIR	86
8	AMFAC	SALES, OFFICE	GOOD	86
9		OFFICE, STORAGE	FAIR	43
10	PARADISE CRUISE	OFFICE, STORAGE, FOOD SERVICE	FAIR	48
11	MAGGE	TICKET BOOTH	FAIR	
12	BLUE HUN		FAIR	
13	CATHERINE		FAIR	
14	GOLDEN EAGLE		FAIR	
15	COREENE C.		FAIR	
16	KONO		FAIR	
17	WINDJAMMER		FAIR	
18	ROYAL PRINCE		FAIR	
19	ARKANE		FAIR	
20	PEARL HARBOR CRUISE		FAIR	
21	PEARL HARBOR CRUISE		FAIR	
22	GLASS BOTTOM BOAT		FAIR	
23	FISHERMANS WHARF	RESTAURANT	GOOD	20
24	EXCHANGE SERVICE	OFFICE	GOOD	6

25	CASTLE & CLOKE	FISH CANNERY	FAIR	2
26	CASTE & CLOKE	DRY DOCK	FAIR	2
27	GRG	FISH AUCTION	FAIR	41
28	GRG	FISH AUCTION	FAIR	84, 86
29	GRG	FISH AUCTION	FAIR	41
30	GRG	FISH AUCTION	FAIR	82, 83, 86
31	KKUA	RADIO TOWER	FAIR	48
32	JOHN DOMINIS	RESTAURANT	GOOD	2-1-60-13
33	PBRC	RESEARCH	GOOD	1
34	HYPERBARIC TREATMENT	MEDICAL	GOOD	1
35		RESEARCH	GOOD	1

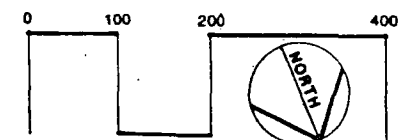
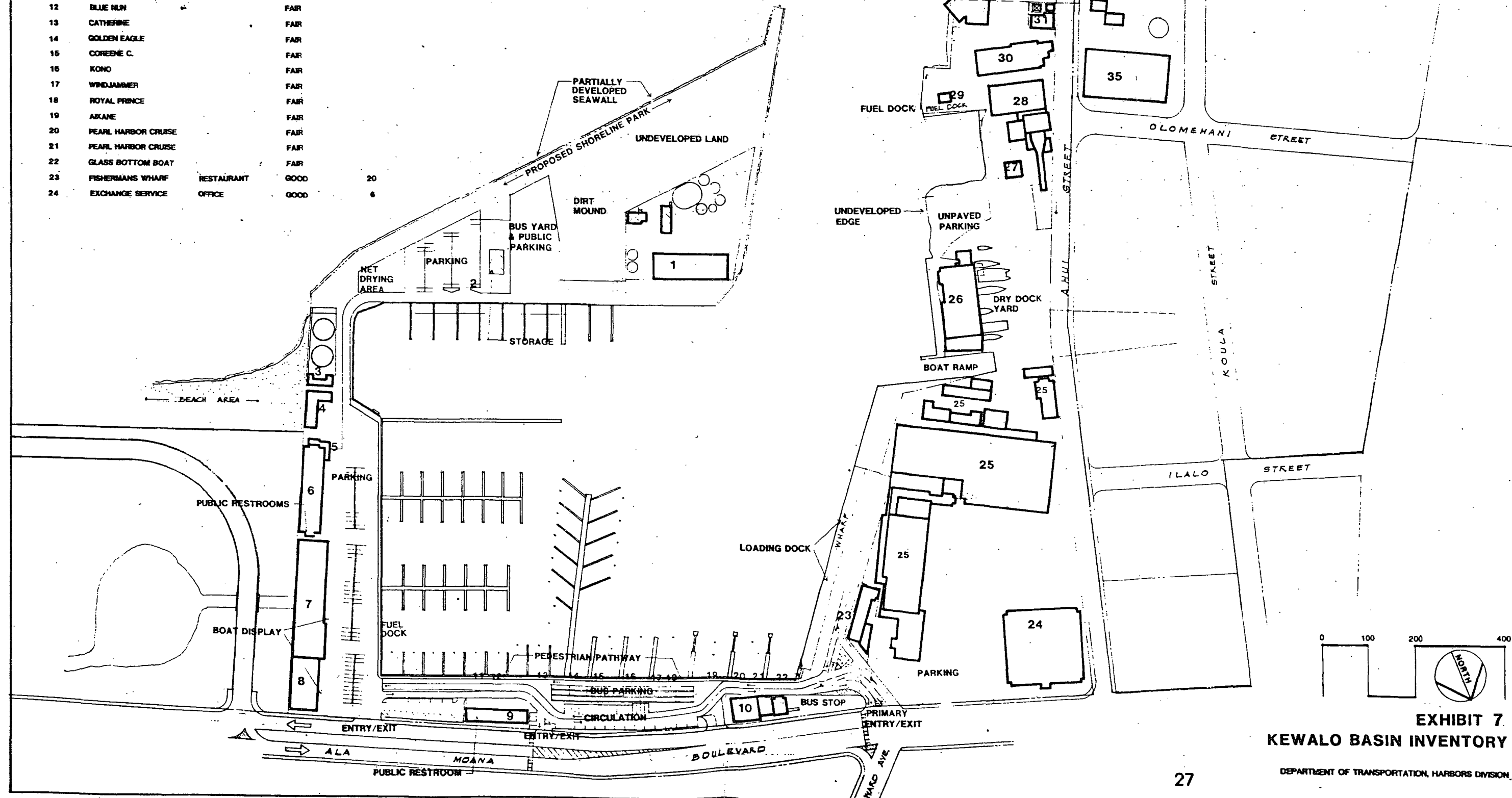


EXHIBIT 7
KEWALO BASIN INVENTORY

DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION

5. BIBLIOGRAPHY

State of Hawaii, Department of Transportation, Kewalo Basin Task Force Report, Jan. 7, 1981

State of Hawaii, Department of Land and Natural Resources, Hawaii Fisheries Development Plan, 1979

State of Hawaii, Department of Transportation, Harbors Division, Environmental Assessment for Kewalo Basin Improvements, May 1984

State of Hawaii, Hawaii Community Development Authority, Makai Area Plan, Oct. 1983

State of Hawaii, Hawaii Community Development Authority, Kaka'ako Waterfront Park, Feb. 1982

DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION

Adam Vincent, Deputy Director

David Higa, Chief

Capt. Donald Gately, District Manager

Pat Torres

Dennis Okamoto, Kewalo Basin Harbor Agent

Harry Murakami, Assistant Chief for Engineering

Tom Fujikawa, Design Engineer

Ron Hirano, Project Coordinator

PROJECT CONSULTANTS

Thomas Lum and Assoc. - Structural Engineer (Prime)

Ho and Okita Inc. - Electrical Engineer

Engineers Surveyors, Hawaii - Civil Engineer

Michael S. Chu, Land Architect - Planner, Landscape Architect

APRIL 1986