Columbia River
Gleason Boat Ramp/Broughton Beach

MasterPlan

METRO
Regional Services

PORT OF PORTLAND

OREGON STATE MARINE BOARD

Columbia River Management Unit
M. James Gleason Boat Ramp
and Broughton Beach Area

Master Plan

March, 1998

Acknowledgments

Metro

Mike Burton, Executive Officer

METRO COUNCIL

Jon Kvistad, Presiding Officer
Patricia McCaig, Susan McLain, Ruth McFarland
Don Morisette, Lisa Naito, Ed Washington

Regional Parks and Greenspaces Department

Charles Ciecko, Director
Dan Kromer, Manager, Operations and Maintenance Division
Janelle Geddes, Regional Park Supervisor

General Services Department

Berit Stevenson, Project Manager

PORT OF PORTLAND

Mike Thorne, Executive Director

OREGON STATE MARINE BOARD

Paul Donheffner, Director

MULTNOMAH COUNTY

Board of County Commissioners

PROJECT ADVISORY COMMITTEE

Berit Stevenson, Dan Kromer, Janelle Geddes,
Rick Scrivens and Kelly Green, Metro Staff
Tim Van Wormer, Port of Portland
Dave Obern, Oregon State Marine Board
Terry Jones, Multnomah County Sheriff's River Patrol
Gary Kunz, East Columbia Neighborhood Association

MASTER PLAN

Prepared for:

Metro Regional Parks and Greenspaces
600 N.E. Grand Avenue
Portland, Oregon 97232

Funded by:

Metro Regional Parks and Greenspaces
Oregon State Marine Board
Port of Portland

Prepared by:

The Benkendorf Associates Corp.
522 S.W. 5th Avenue, Suite 703
Portland, Oregon 97204

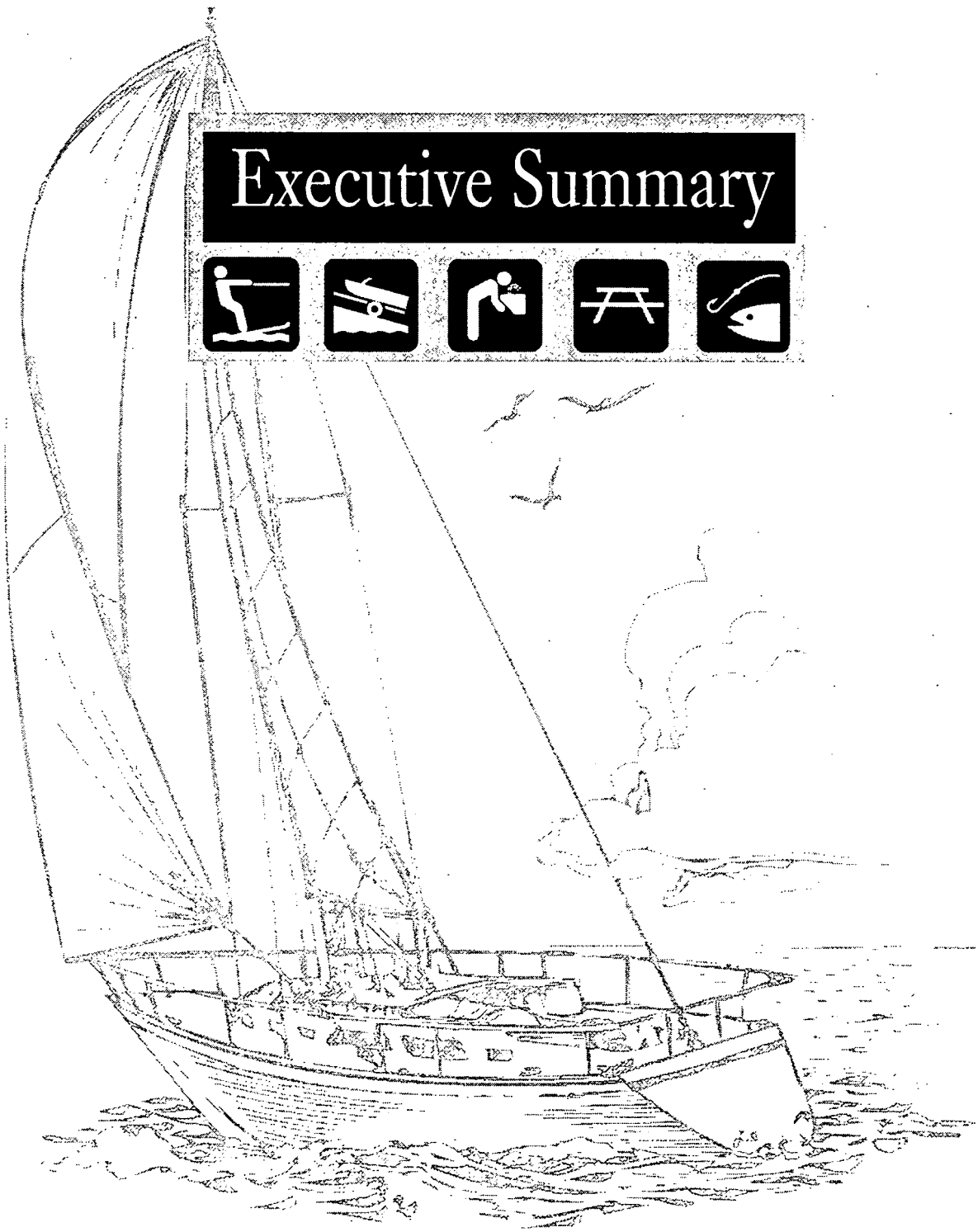
In Association with:

Richard Ragland, AIA, Architects
Hobson Johnson & Associates, Inc.
Odgen Beeman & Associates, Inc.
Kittelson & Associates, Inc.

TABLE OF CONTENTS

List of Tables and Exhibits

Executive Summary



Executive Summary

The Columbia River Management Unit is located on N.E. Marine Drive between 42nd Avenue and the pile dike to the east on the Columbia River. The unit is comprised of the M. James Gleason Boat Ramp, the Portage Marina site and Broughton Beach.

Purpose: The purpose of the Master Plan is to provide design and management guidelines for the redevelopment of the existing Boat Ramp Facilities and development of a new Day Use Recreation area. These recommendations are based on the overall mission of the Management Unit which is "to provide a family-oriented day-use area for water-based recreation on the Columbia River."

Current Use: There are currently three primary categories of recreational use: motorized and non-motorized recreation boating, day use of beach area and non-related uses that have a commercial aspect. The primary site users are recreational boaters with boats 26 feet or less in length. The non-related uses include commercial launching of private yachts, boat sale demonstrations, unloading equipment and supplies for river related construction, towing and salvage operation and guide-type services.

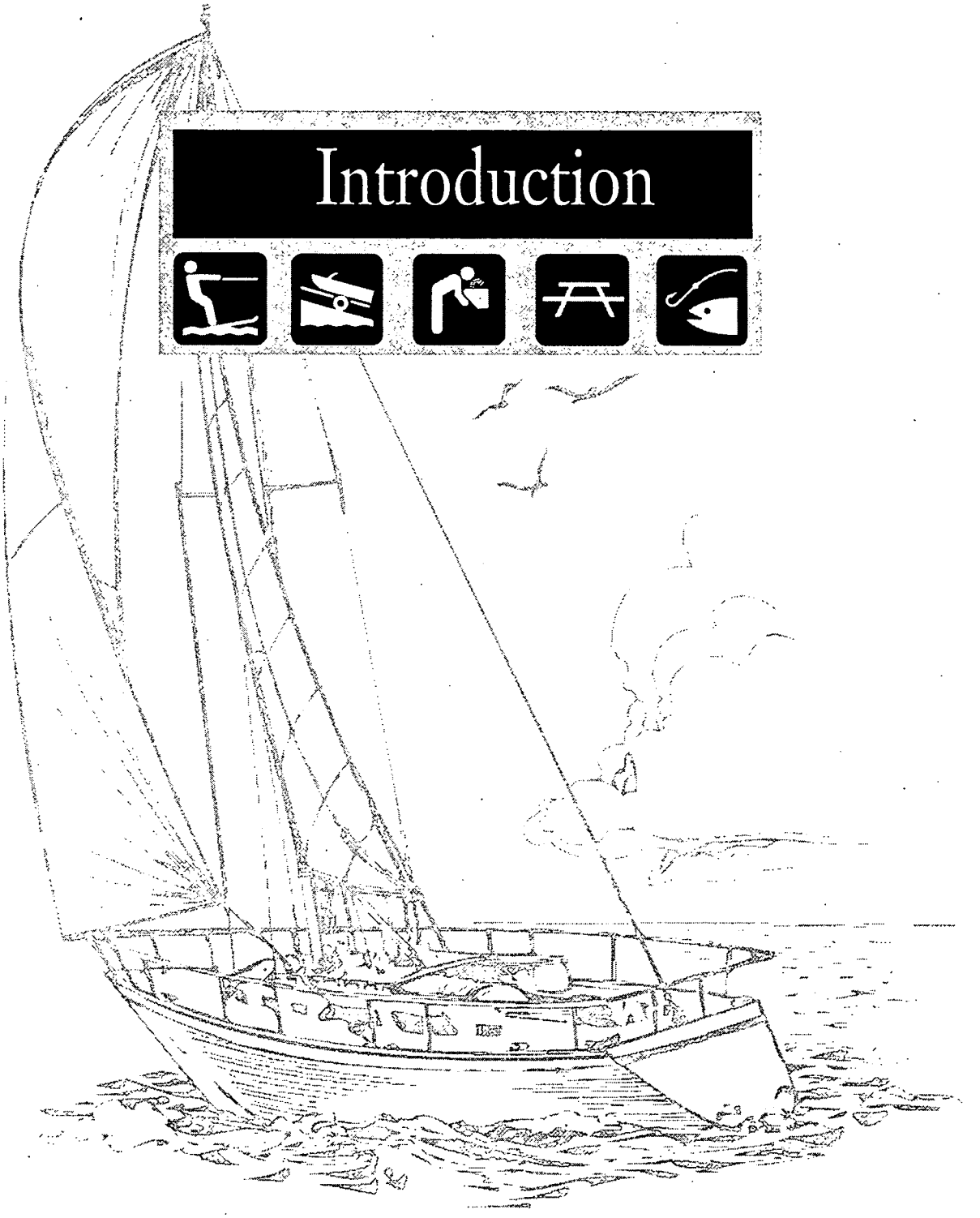
Public Input: A public involvement program was formulated as a part of the Master Planning process. Three public workshops, two meetings with non-recreation related businesses, attendance at the Bridgeton Neighborhood Association, press coverage in the Oregonian and the Freshwater News. A Technical Advisory Committee which included staff members of Metro, Port of Portland, Oregon State Marine Board (OSMB), East Columbia Neighborhood Association, and Multnomah County Sheriff's River Patrol provided guidance to the consulting team lead by The Benkendorf Associates Corporation.

Master Plan: The Master Plan proposes to improve the site over a period of ten years by providing a new five lane boat ramp, a day use beach area, new vehicular access and circulation system, and expanded facilities for boat trailer and single car parking. Specific components of these elements include the following:

- **Five lane boat ramp** including a ready and tie-down area, a transient boat dock, an improved sanitary holding tank pump out station, public restrooms, relocation of the River Patrol building and provision of multi-space boathouse and fueling station and trailer storage facility.
- **Day use area** organized to provide a range of facilities to encourage an improved picnicking and beachfront experience. The facilities include: two small picnic shelters, covered picnic benches, sand volley ball court, accessible fishing pier, pedestrian trails and an area for seasonal concessionaires.
- **Parking areas** designed to accommodate boat trailers and improve circulation for ease of access and egress to the launch ramp. In addition, a new parking area serving the day use area is proposed east of the existing parking lot area.

Implementation: The Master Plan is intended to be implemented in five phases. The first phase will begin in 1998 to complete the engineering and gain the necessary federal, state and city permits. The subsequent four phases will begin with a new entrance to the site and conclude with the development of the day use area in Phase V. All implementation activities will be subject to the availability of funds from OSMB, Multnomah County and METRO. The METRO Council will review the planned improvements annually in the budget process.

Introduction



I. INTRODUCTION

For decades, access to the Willamette and Columbia Rivers has played a vital role in the quality of life in the metropolitan region. Through the 1960's, the City of Portland was the primary population center and primary parks provider in the region. With continuing growth through the 1970's, suburban communities outside the central city established new and expanded parks and recreation programs.

The State of Oregon requires that all cities, counties and Metro show that their plans are consistent with State Land Use Planning Goals including: Goal 5, Open Spaces, Scenic and Historic Areas and Natural Resources; Goal 6, Air, Water and Land Resources Quality and Goal 8, Recreational needs. In 1990, Metro Council established a Greenspaces Policy Advisory Committee consisting of elected officials from local jurisdictions in the region, to oversee development of the Metropolitan Greenspaces Master Plan, which the Metro Council adopted in 1992.

In 1995, Metro referred a $135.6 million bond measure to voters of the region that identified 14 regional target acquisition areas, 6 regional greenway and trail projects and 90 local natural area acquisition and development projects that supported the goals of the Metropolitan Greenspaces Master Plan. Metro identified the long term recreational needs of the metropolitan region in preparation for the 1995 Ballot Measure 26-26, Open Space, Parks and Streams. These needs are intended to be met over the long term by the Metropolitan Greenspaces Master Plan and the Regional Parks Target Area Strategy. The Greenspaces program includes Policy 2.57 which states: "Promote access to river systems for recreation, education and the enjoyment of these regional resources by the public in a manner consistent with protection of natural resource values." In addition, to the Greenspaces plan, Metro's Regional Framework Plan is being developed at the present time. The Framework Plan will include a chapter specifically dealing with recreation facilities and how to manage and plan these metropolitan resources in the future.

The Columbia Shoreline was identified as one of the target areas where an additional 95 acres was proposed for purchase by Ballot Measure 26-26. Acquisition of Broughton Beach and Portage Marina from the Port of Portland totaling 17.7 acres is consistent with the shoreline acquisition and recreation strategy. The M. James Gleason Boat Ramp improvements were specifically identified as Project 51 in the ballot measure's project list for Multnomah County. In addition, the Oregon State Marine Board's 1993-1999 Six-Year Facilities Plan identified the Gleason Boat Ramp as a priority project.

Metro operates and maintains other water oriented parks and launch ramp facilities in the Columbia South Shore. In addition to the M. James Gleason Boat Ramp, these include Chinook Landing, a relatively new launch ramp facility on the Columbia River near the Sandy River and Blue Lake Park, a major day use and family oriented recreation facility at the intersection of N.E. Marine Drive and 223rd Avenue.

The Oregon State Parks and Recreation Department's 1991 Recreational Needs Bulletin indicated that Region 7 which is comprised of Clackamas, Washington, Multnomah and Columbia counties contains 11 per cent of the statewide supply of launch lanes. This region however, experiences 30

per cent of the statewide demand for these facilities. This discrepancy in demand versus supply clearly indicates additional capacity is needed to meet the current and future demand. The Regional Need Ranking illustrates that Region 7 has and is projected to continue with the highest use per lane - by the year 2000 reaching 38,125 users per lane. The growth rates for selected recreational activities is illustrated in the following table.

Projected Growth in Selected Recreational Activities Between 1987 and 2000 for Region 7*

Activity	Growth Rate
Freshwater Boat Fishing	62%
Freshwater Bank Fishing	21%
Beach Swimming	34%
Water-skiing	62%
Sailing	18%
Windsurfing	77%
Non-motorized river boating	20%
Motorized river boating	13%
Camping by boat	12%
Picnicking	35%
Outdoor court games (volleyball)	41%
Beach use	41%

*Region 7 comprises Clackamas, Washington, Multnomah and Columbia counties.

Master Plan Purpose - The purpose of the Master Plan is to provide the design and management recommendations to guide the redevelopment and development of the Boat Ramp Facilities and a new Day Use Recreation area. The site consists of three parcels which include the M. James Gleason Boat Ramp, a part of Broughton Beach and Portage Marina. Metro is in the process of acquiring a part of the beach and the marina from the Port of Portland and have identified all three of these parcels as the Columbia River Management Unit. As such, it is the only public access location to the Columbia River between Kelley Point Park and Rooster Rock State Park to the East. The master planning process was designed to specifically involve the wide range of users of this facility and the final Master Plan displayed in Section IV represents many of the viewpoints expressed.

Mission Statement - The mission of the Columbia River Management Unit is to provide a family-oriented day-use area for water-based recreation on the Columbia River. The primary site attraction will be a financially self-supporting boat launching facility, complete with on-site parking appropriate for the number of launch ramps and the capacity of the river. Secondary site attractions will include a day use area and parking that will include a trail head for the forty mile bicycle loop and some amenities for picnicking, and fishing, consistent with a balanced use of the site as a natural resource.

Management Unit Goals - A Technical Advisory Committee made up of the Oregon State Marine Board, Port of Portland, Metro Regional Parks and Greenspaces management and operational staff, Multnomah County River Patrol and the adjacent Neighborhood Association formulated the following Management Goals for the site. The Goals are organized into the categories of facilities, resource enhancement, revenue, crime prevention operations and maintenance and transportation.

Facilities

1. Provide upgraded boat launching facilities.
2. Develop new day use facilities and amenities.
3. Enhance the existing bicycle path amenities.
4. Improve transient (day use) boat tie up facilities
5. Develop new marine river patrol facilities.

Resource Enhancement

1. Reestablish the riparian vegetation.
2. Create a riverfront pedestrian experience.
3. Mitigate the hardscape improvements with landscaping and enhance the existing natural vegetation.

Revenue

1. Balance revenues and operating costs to assure a self-supporting facility.
2. Structure user fees to accommodate the wide range and frequency of site use.
3. Identify and incorporate as many new revenue sources (enterprise activity) as feasible.

Crime Prevention

1. Enhance park personnel visibility.
2. Coordinate site monitoring and patrol with the City of Portland Police department.
3. Foster an atmosphere of self-policing by site users.
4. Maintain River Patrol presence on the site.
5. Improve the River Patrol's response to emergencies.

Operations & Maintenance

1. Foster an atmosphere that promotes user maintenance.
2. Establish maintenance standards for the boat ramp, beach, and day use facilities.
3. Establish Management Unit operational standards.

Transportation

1. Provide additional site parking for day use.
2. Solve pedestrian/vehicle conflicts along Marine Drive
3. Redesign the site and boat ramp access, to eliminate queuing problems.
4. Provide mass transit service on a seasonal basis
5. Improve access from Marine Drive into the site.

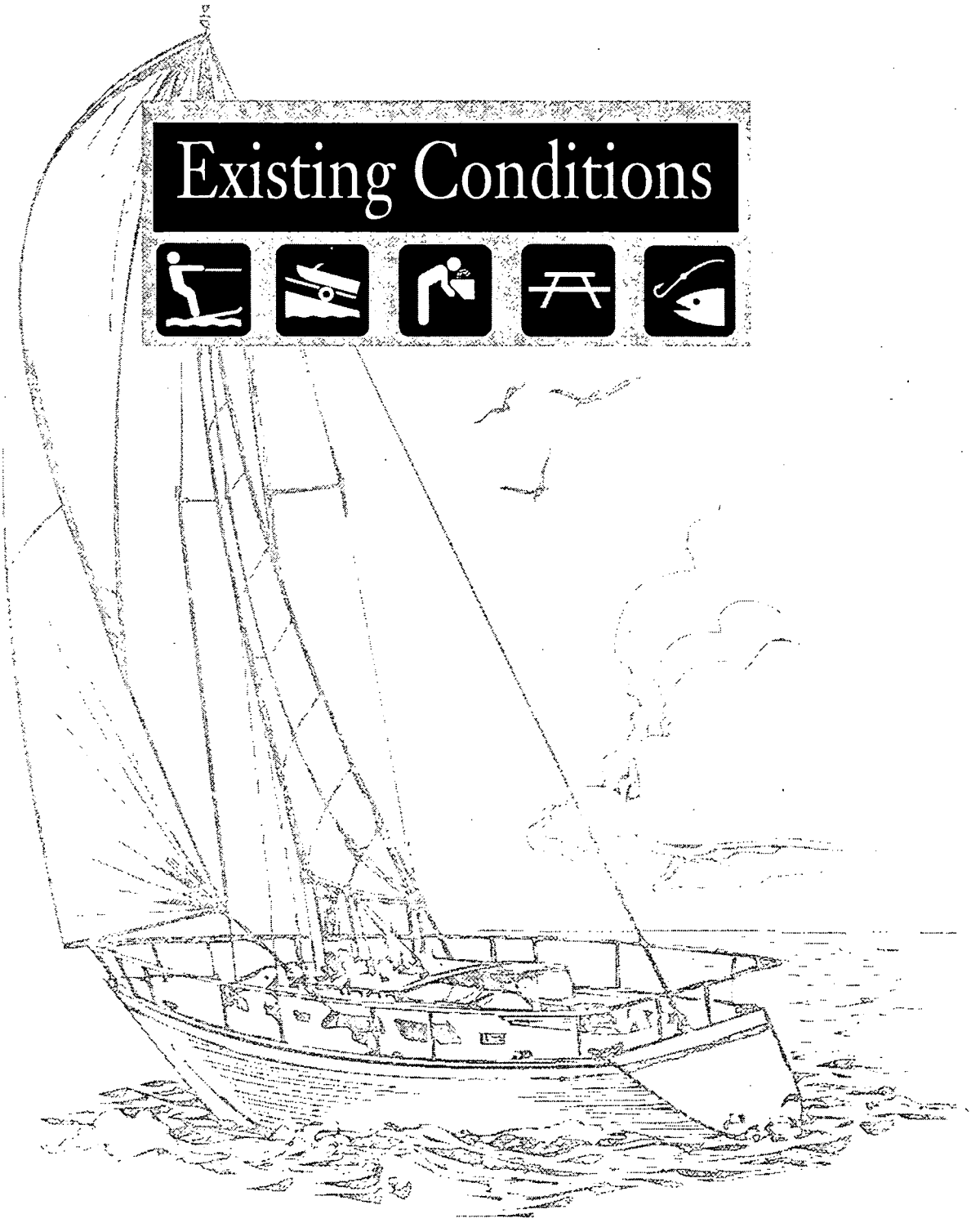
Public Participation - A public participation program was formulated as a part of the planning process for the Master Plan. The program included representation of the adjacent neighborhood association on a Technical Advisory Committee, three public workshops, attendance at the Bridgeton Neighborhood Association meeting and press coverage in the Oregonian and the Freshwater News, a monthly boating newspaper, serving Oregon and Southwest Washington.

Approximately 3000 notices were distributed to the general public advising them of the master planning program and the workshops. The first workshop was conducted on April 29, 1997 and was designed to review the thrust of the planning program, discuss the problems and opportunities at the site and describe two alternative master plan concepts. Based on the comments received at the workshop the alternatives were refined and a conceptual site plan was presented at the second workshop on June 3, 1997. The draft Master Plan was presented at a third workshop which was held on July 31, 1997. The public comment period was open from August 1 to September 19, 1997.

The Boat Ramp facility is also utilized by businesses and individuals for commercial purposes such as: providing sales demonstrations, undertaking construction projects on the river and providing guide-type services. These users have been utilizing the boat ramp for many years and provide services to a range of users on and adjacent to the river. During the planning process there was a concern by the businesses that the new plan would "design" them off the site in the future. In order to respond to these concerns, two meetings were held on June 2nd and June 27th, 1997 with these business representatives. The purpose of these meetings was to review the draft plans and to gain an understanding of their needs relative to the redesign of the site and future operational policies affecting these uses. In addition to the meetings a "commercial user survey" was prepared and returned by the majority of those in attendance at the meetings. A summary of the survey results is included in the Appendix.

Letter's received during the public comment period are included in the Appendix.

Existing Conditions



II. EXISTING CONDITIONS

Location - The Columbia River Management Unit is located on N.E. Marine Drive between 42nd Street and the pile dike to the east on the Columbia River. The site is on the north side of Marine Drive immediately across from Portland International Airport. Beach access to the Columbia River, at this location, represents the only major public access to the river between Kelley Point Park and Rooster Rock Park, a distance of thirty miles, with a few minor exceptions. The site is bordered on the east by a pile dike and on the west by two restaurants. **See Exhibit 1.**

Site Users - There are three primary categories of site users: motorized and non-motorized recreation boaters, day use recreationists utilizing the beach area and boating related and non-related uses that have a commercial aspect. The primary site users are motorized recreation boaters with boats 26 feet or less in length. These boaters utilize the launch facility for access to the Columbia River and nearby island destinations. There are conflicts along the shoreline between the boaters, personal water craft, water ski enthusiasts and day use recreationists. The non-motorized recreation boaters include kayaks, canoes, rowboats and small sailboats.

In addition to being utilized by recreation boaters, the launch ramp has been utilized for many years for other boating related and non-related uses, all of which include a commercial aspect. These activities were identified as a part of the site research but the full scope of these activities has not been thoroughly explored. These activities include:

- Launching large boats for permanent moorage in nearby or distant marinas and following repairs or maintenance.
- Boat Sale demonstrations where boat brokers demonstrate a particular boat to a potential buyer.
- Unloading equipment, materials, supplies or construction debris for river related construction including docks, piers, boat houses and house boats.
- Loading or unloading cattle and feed which utilize grazing areas on some of the nearby islands.
- Commercial towing and salvage operations.
- Guide-Type services (fishing, sightseeing, etc.).

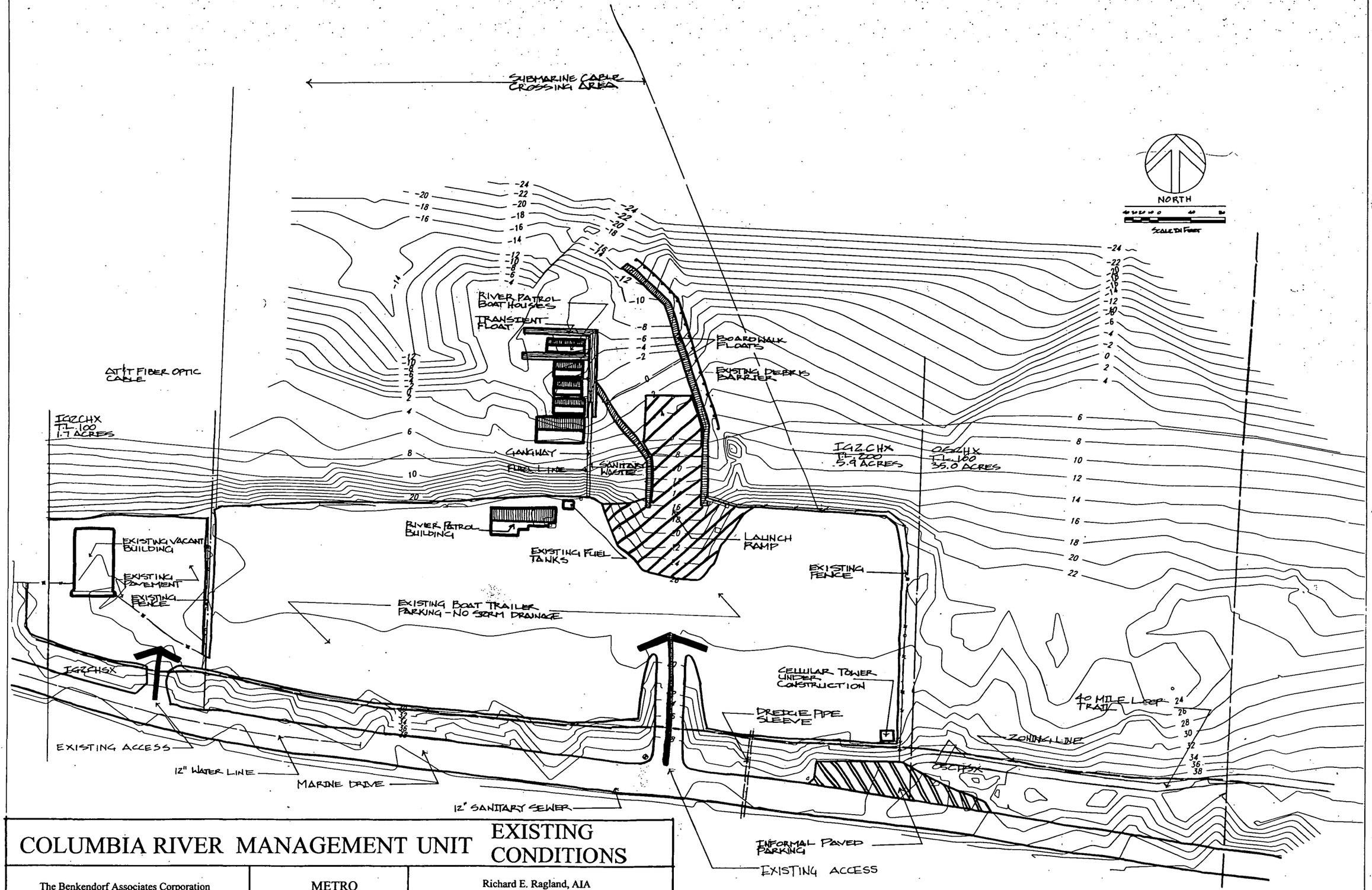
In addition, there may be other uses or activities that have not been identified to date.

Site Use - During the last fiscal year attendance was 42,000. Attendance fluctuates widely primarily due to the weather. "Where the Boats are in Oregon", published by the Oregon State Marine Board, indicates that there are over 195,000 registered boats in the state and a full third of those are registered in Washington, Multnomah and Clackamas Counties. The population is expected to grow by 497,000 in the tri-county area by the year 2017. Utilizing the State Marine Board's rate of one boat per 16 people, boat ownership is expected to grow by over 31,000 by 2017, an increase of 16%.

The Columbia River is the busiest waterway within the region and the state. The Oregon State Marine Board's 1996 Boating Survey indicates that the Gleason Boat Ramp is the second busiest launch site with over 33,000 trips per year. These trips are for Oregon boaters only, however, a

recently completed facility user survey indicated that a considerable amount of usage comes from Clark County residents as well.

There was a decrease in users at the Gleason facility beginning in fiscal year 1991-92. This decrease is directly attributable to the opening in that year of Chinook Landing. This ramp is located 9.3 river miles further east on the Columbia and is also a Metro facility. According to the boater information referenced above, Chinook is the busiest facility on the Columbia, followed by Gleason as the second most popular launch site. The shift in use from Gleason to Chinook Landing clearly establishes a preference by users of a new facility laid out in an efficient manner. It should be noted that Chinook Landing has begun to experience some very significant over-use problems and that the proposed improvements to Gleason will provide some needed relief to the Chinook facility.



COLUMBIA RIVER MANAGEMENT UNIT EXISTING CONDITIONS

The Benkendorf Associates Corporation
522 S.W. Fifth Street
Portland, Oregon 97204

METRO
600 N.E. Grand Avenue
Portland, Oregon

Richard E. Ragland, AIA
Hobson Johnson & Associates
Ogden Beeman & Associates
Kittelson & Associates, Inc.

Natural Resources - The site is a long narrow strip of land north of Marine Drive and adjacent to the south shore of the Columbia River. The boat ramp site and the Portage Marina site are fully developed with asphalt parking lots and two existing buildings. The Broughton Beach area is undeveloped and in its natural condition with the exception of the flood protection dike on the southern boundary line and the 40 Mile Loop Bicycle and Hiking Trail which is also paved. The natural conditions of the site are illustrated by the river conditions and Flood plain, the topography, the soils and the existing vegetation.

- **River Conditions & Flood plain** - The site runs from approximately River Mile 109.72 to River Mile 109.2 at the downstream property line. There are two existing training dikes along this reach of the river at River Mile 110.28 and River Mile 109.72 that have been placed to direct the current into the Navigation Channel. The river area north of the pile dikes and at the boat ramp have experienced considerable changes indicating a dynamic system due to natural and man-made activities. The dredging activities create "traps" that tend to fill in rather quickly compared to outlying, more equilibrium depth areas. Areas directly riverward of the pile dikes are rather dynamic as the scour holes change with various hydrologic events. See Ogden Beeman & Associates memo dated April 14, 1997 in the Appendix for more additional river condition related information.

  The 100 year flood plain at the boat ramp river mile location is 29 feet. The Ordinary High Water is 18 feet and the Ordinary Low Water is 2.1 feet with all measurements based on National Geodetic Vertical Data/Mean Sea Level (NGVD/MSL). The Portage Marina site is above the flood plain but all of the parking lot for the boat ramp and a large portion of the Broughton Beach area is within the flood plain boundary. The flood plain boundary in the boat ramp parking lot is along the southern boundary of the lot.

- **Topography** - The topography has been altered by the construction of the flood protection dike. Marine Drive has been constructed on top of the dike for that section that adjoins the Boat Ramp and the Portage Marina properties. The dike continues east north of Marine Drive for the remainder of Broughton Beach. The topography slopes naturally north to the river shoreline from the top of the dike. The parking areas for the boat ramp and the Portage Marina site are relatively flat and at the northern boundary of these lots there is a steep bank down to the river's edge.

- **Soils** - The soils are generally Columbia River sand that has been placed on the site to replenish the site from river flood erosion. There are some sections of the Broughton area that are rocky where the wake of the river has washed away the Columbia River sand.

- **Vegetation** – The existing vegetation consists primarily of typical Columbia River flood plain riparian vegetation. This consists of native grasses, wild flowers such as Ladies Mantle, Buttercup, and small shrubs such as native wild roses. There is an excellent opportunity to supplement the existing vegetation with a variety of flowers and shrubs.

Boat Ramp Facilities - The M. James Gleason Boat Ramp was built in the late 1950's to provide access for recreation boaters and commercial users to the Columbia River and nearby islands. The facility has served the community well, but with the continued increase of recreational boaters within the last ten years especially, the facility no longer functions efficiently given the volume of users during heavy use periods. As one example there are no permanent public restroom facilities on the site. Permanent restrooms were available in the River Patrol Building until 1995 when they were closed due to vandalism and safety concerns. Portable toilets are now provided during the peak summer season.

- **Waterside Improvements** - The major waterside improvements include the existing five lane boat ramp, the adjacent transient docks, marine sewage pump out station, a trash rack which functions as a debris barrier and the docks anchoring the River Patrol boat houses. The Port of Portland maintains an Emergency Response Boat next to the boat houses that is used for aircraft crashes that may occur in the river. There are a few piles and the remains of a dock in the river in front of the Portage Marina property. As mentioned earlier there are also training dikes up stream of the boat ramp site and one dike immediately down stream. The existing boat ramp is inadequate to serve the number of launches during the busy summer season. In addition, the in-water design of the ramp is difficult to use because of an incomplete ramp section on the west side. This condition effectively limits the capacity of the ramp to four lanes.

- **Access and Parking** - Access into the site and egress from the site onto Marine Drive is very difficult during peak summer periods. Marine Drive is heavily traveled, especially with large trucks traveling at speeds approaching 50 miles per hour. Because Marine Drive is only two lanes, site users seeking to make a left turn into the site from the west delay through traffic traveling east. Exiting the site is equally difficult particularly for vehicles seeking to head in an easterly direction. Because of the drop in grade of Marine Drive, the sight distance is below accepted standards. See Technical Memorandum #1, dated March 6, 1997, prepared by Kittelson & Associates, Inc. in the Appendix for additional information.

  One of the major problems with the existing facility is the alignment of the only access drive from Marine Drive into the property. The driveway lines up directly with the boat ramp launch lanes. Absent any physical or pavement striping to direct the flow of traffic, the typical boat and trailer vehicle utilizes as much of the paved parking area as necessary to properly approach the ramp. During heavy use this condition causes considerable congestion and as a result reduces the efficiency of boat launches

  The existing parking lot is designed to serve the boat ramp only. The lot is comprised of 181 boat and trailer spaces and 59 single car parking spaces. The few single car spaces not being utilized by the boat launch users are available to people utilizing Broughton Beach. In reality however, there are no single car parking spaces specifically dedicated to day use recreational activities on the site. There is an unimproved parking area on the south side of Marine Drive that can accommodate approximately 50 automobiles for day use activities. The remainder of the people interested in using Broughton Beach, park on the shoulders of Marine Drive, especially the north side. These users access the beach both through the existing parking

area and over the levee. Considerable damage is done to the levee system when users access the beach in this manner, which results in excessive maintenance and repair costs to the Drainage District.

- **Structures** - Currently there are two primary structures located at this site, they are the River Patrol Building and the Portage Marina Building(including related boathouses). A building condition analysis was prepared for these structures:

River Patrol Building and Boathouse Condition Analysis

- **DATE BUILT:** 1969
- **SIZE:** 36'-0" x 82'-0" offices, not including generator shed & boat houses
- **OFFICE AREA:** 2,732 sq. ft. (includes generator shed & attic storage 2,407 sq. ft. without)
- **BOATHOUSE**
- **AREA:** 4,117 sq. ft. (5 boathouses, including Port fireboat)
- **VALUE 96/97**
  Building: $324,600 ($47.39/sq. ft. includes offices & boathouses)

Overview

The River Patrol Office Building was built in 1969 and was originally designed to hold six male staff. As boating activity has increased over the last 28 years, the current summer staff now exceeds 13, including both male and female officers. As shown on the Program Area Summary, the current open office area needs to approximately triple in size, the combined lunch/locker room functions need to be separated, with separate male and female locker/shower areas. An additional boat service bay needs to be added because the number of boats has increased along with the maintenance requirements for the boats. New functions would include an interview room which would double as a small conference room.

The four River Patrol boathouses are very old and need continual maintenance. Newer boats used by Marine Patrol are larger and taller. The single boathouses don't provide as much flexibility as a single larger combined house.

Architects Building Analysis Recommendation

Because the cost of expanding and bringing the building up to both structural building and accessibility codes, the location in the 100 year flood plain, and its poor location relative to the overall ramp and site use, it is recommended to build a new, larger facility above the 100 year flood plain at the Portage site. It has been suggested separating the office and service bay functions might be necessary if the Portage property is not adequate to accommodate both functions. This would be possible, by relocating the service bays into a new boat storage building off site.

The Sheriff's Patrol needs additional boathouse space. Rather than adding one more single house, a new larger facility that could hold 6 boats is recommended. This should be located near the new River Patrol Offices to accommodate response time in emergency situations.

Portage Building Condition Analysis

- DATE BUILT: 1966
- SIZE: 50'-8" X 80'-0", not including west side covered area
- AREA: 4,054 sq. ft.
- SITE: 1.285 acres (55,975 sq. ft.)
- VALUE 96/97
  - Property: $279,700 ($5.00/sq. ft.)
  - Building: $73,200 ($18.06/sq. ft.)

Overview

In 1991 the Port of Portland conducted an in-depth maintenance audit on the building. This study, conducted by a team of architects and engineers, evaluated the building, noted deficiencies and prepared a cost analysis to make immediate code repairs, and included a 5 year and 15 year maintenance program. These repairs were to keep the building as it was to minimum code and maintenance condition. The immediate cost was $44,248: 5 year cost was $22,734 and the 15 year cost was $36,090 for a total of $103,072 (1991 dollars). None of the proposed work was ever done.

Projecting these costs to current dollars, a 5.0% per year average increase was used because over the last two to three years construction costs in the Portland Metro region has been increasing at a dramatic rate due to the very 'hot' building market. If the code repairs and maintenance costs were to be done next year in 1998 a total cost of $145,033 could be expected.

If the Sheriffs River Patrol offices were to relocate to the facility it would mean having to bring the building up to meet "essential facility" requirements for seismic and wind loads (This means a 25% increase above current seismic zone 3 standards due to the emergency response requirement of the facility), as well as normal tenant improvement work, these costs would be in addition to the above maintenance costs. It is estimated that to remodel the existing building would cost $608,100.00 (4,054 sq. ft. x $158/sq. ft.) and to add the additional area needed by the River Patrol would cost $244,500.00 (1,956 sq. ft. x $125/sq. ft.), for a total project cost of $852.600.00

Architects Building Analysis Recommendation

The existing building is incompatible with the needs of the River Patrol because it would be less costly to tear down the existing building and build a new facility meeting current building codes, than to repair the building and remodel it to fit the needs of the River Patrol and Metro.

- **Utilities** - Potable water and sanitary sewer service are provided by the City of Portland and available at the site. There is a 12 inch water line in Marine Drive which serves the River Patrol and Portage Marina buildings. The line does not extend further east of the Boat Ramp site. There is also a 12 inch sanitary sewer line in Marine Drive which serves these two buildings and the Sewage Pump Out Station. There is no storm water drainage in either parking lot.

- **Other Site Improvements** - There are several smaller improvements that have been made on these properties. The improvement most directly related to the proposed expansion of the recreational opportunities on the site is the 40 Mile Loop Trail. The trail currently terminates at the southeast corner of the Boat Ramp parking lot where a small unimproved parking area is provided.

  The most visible non-recreation related improvement is the Cellular Tower in the southeast corner of the existing parking lot. In addition, there is a small Coast Guard Auxiliary Shed utilized by the auxilary to provide water saftey education and inspection services. The Boat Ramp site and the Portage Marina property are both partially fenced with cyclone fencing.

Zoning - The site is in the City of Portland and the zoning regulations promulgated by the city apply to this site. Two primary zoning designations have been assigned to this property. The existing boat ramp site, Tax Lot 200 @ 5.9 acres, and the Portage Marina property, Tax Lot 100 @ 1.7 acres, are zoned General Industrial 2 (IG2). The Broughton Beach area, Tax Lot 100 @ 35.0 acres, is zoned Open Space (OS). Note that only approximately 16.0 acres of the Broughton Beach parcel are included in the site.

- **General Industrial 2** - This zone is generally restricted to light industrial uses but also allows commercial and community service with some restrictions. A Conditional Use Permit is required for Community Services uses over 3,000 square feet such as the River Patrol Offices.

- **Open Space** - The Open Space zone is intended to preserve public and private open and natural areas identified in the Comprehensive Plan. The functions of the zone identified in Title 33 that are applicable to this site include: providing opportunities for outdoor recreation; providing scenic qualities; and protecting sensitive or fragile environmental areas.

There are three additional overlay zones on all of the tax lots and a fourth overlay zone on a part of the Broughton Beach area. The three zones common to all of the property include:

- **Environmental Conservation zone (C)** - which places restrictions on natural resource impacts, reduces allowable lot coverage, and requires added submittal and reviews.

- **Aircraft Landing zone (H)** - which limits the height buildings and trees.

- **PDC Noise Impact zone (X)** - which requires additional sound insulation in buildings and acknowledges the noise impacts of aircraft landings and takeoffs.

A Runway Protection Zone Plan, prepared by the Port of Portland limits the height of structures on parts of the Broughton Beach area immediately under Runways 10L/28R and 3-21. The two areas are within the approach and departure zones of theses two runways. The drawings illustrating these zones are in the Appendix.

Financial Operating History

The following table illustrates the operating history of the boat ramp for the last five fiscal years.

Table I
SUMMARY OF RECENT OPERATING HISTORY
M. JAMES GLEASON BOAT RAMP

1991-1996

	91-92	92-93	93-94	94-95	95-96
Attendance/Persons 1/	66,432	42,042	44,349	48,863	37,530
Maintenance Assistance Program Funds	$4,000	$4,000	$4,000	$4,000	$4,000
Day Use Fee/Vehicle	$2.00	$2.00	$3.00	$3.00	$3.00
Revenues	$43,373	$28,917	$43,428	$47,443	$37,367
Expenditures					
Personnel Services	$13,070	$24,016	$25,926	$26,140	$27,460
Maintenance & Service	$9,029	$12,672	$13,851	$13,905	$20,661
Basin Dredging	$0	$0	$0	$0	$42,689
Pile Replacement/Log Boom Repair	$17,021	$0	$0	$0	$0
Net Operating Revenue	$4,253	-$7,771	$3,651	$7,398	-$53,443

1/ Attendance is calculated using a formula based on revenue collected and the number of people per vehicle.

SOURCE: Metro and Hobson Johnson & Associates

Management Roles and Responsibilities - There are four public agencies with responsibility for managing various aspects of the Columbia River Management Unit. These include the following:

Metro

- The Boat Ramp, associated waterfront structures and the parking lot. User fees are collected for day use only.
- Six acres of Broughton Beach are leased from the Port of Portland with a minimum amount of maintenance required.
- Management of a cellular telephone tower lease with AT&T.
- Metro is currently in the process of acquiring the Portage Marina property and Broughton Beach from the boat ramp to the pile dike to the east from the Port of Portland.

Multnomah County

- The sheriff's department operates the River Patrol from a building that is leased on ground from Metro. The Patrol provides law enforcement and emergency protective services on the Columbia River. The existing ground lease is a "no payment" instrument.
- The Patrol also provides a measure of law enforcement due to its visibility on the property.

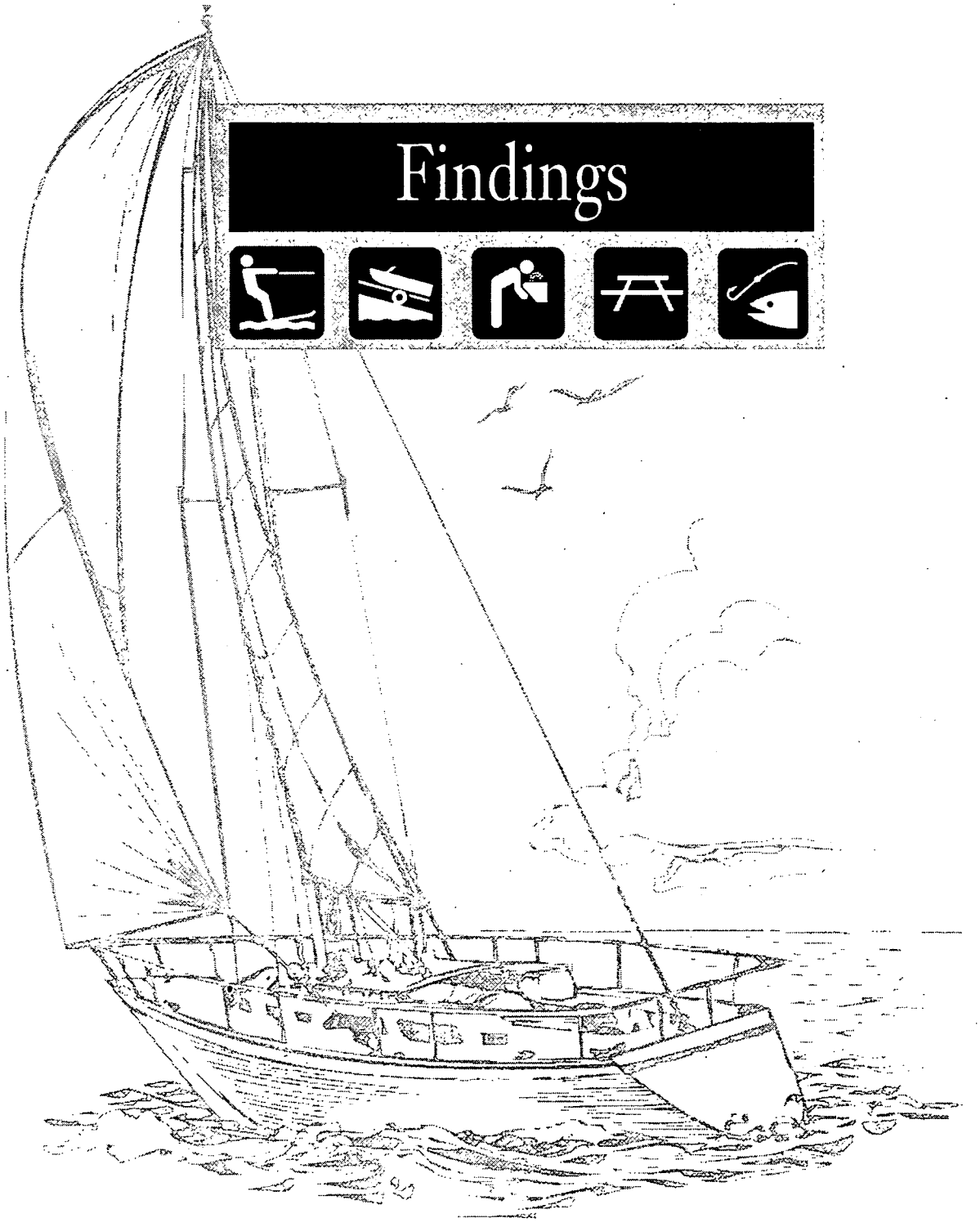
Port of Portland

- Operates an Emergency Response Boat for in-water aircraft emergencies.
- Owns the Portage Marina Property and Broughton Beach.
- Maintains a dredge pipe for transporting dredged material to Port Property south of Marine Drive.

Multnomah County Drainage District

- Maintains the existing flood control dike which traverses the southern boundary of the property.

Findings



III. FINDINGS

Natural Resources

1. Broughton Beach contains an unimproved shoreline and beach that has the potential to provide an improved day use experience.
2. The Broughton Beach site has existing natural vegetation that should be enhanced to stabilize the site conditions, and reduce wind erosion and irritation to site users from blowing sand particles.

Facilities

1. The Boat Ramp and related parking was constructed in the late 1950's and is not designed to efficiently accommodate the volume of boaters desiring to launch their boats.
2. The existing floating docks are in disrepair
3. The existing sewage waste pump out facility functions improperly.
4. There is inadequate vehicle/trailer queuing space, ready and tie down areas and adequate maneuvering space.
5. The existing River Patrol building is inadequate for several reasons:
   - The building is too small for current functional requirements.
   - It is within the 100 year Flood plain.
   - There is considerable deferred maintenance.
   - It does not meet current code requirements for ADA and essential services.
   - The building's location inhibits redevelopment of the parking and circulation which will maximize boat launch efficiency.
6. There is no on-site maintenance facility for Metro maintenance personnel.
7. There are no permanent public rest rooms.
8. There is inadequate queuing space to make left turns from Marine Drive into the facility and from the facility onto Marine Drive. In addition, there is inadequate sight distance for vehicles to the east.
9. The parking for day use on the south side of Marine Drive is inadequate and fosters a dangerous condition for pedestrians seeking to cross at unsignalized locations.
10. The current method of tracking the use of the facility is inefficient and does not provide the detailed information required to properly manage the facility
11. The Facilities Manager for the Oregon State Marine Board (OSMB) has a long-standing knowledge of the facility's condition due to the Marine Board's funding participation for operating and capital expenses. The Facility manager was a member of the master planning advisory committee where there was considerable discussion regarding the facility's condition. The OMSB Facilities Manager and the Facility Manager of Metro's Regional Parks suggested and the advisory committee agreed that a complete refurbishing of the facility was in order. The dilapidated condition and the inefficient layout were the primary factors in this determination. A Survey of Existing Conditions is included as Appendix A.

Recreation

1. The recreation potential of Broughton Beach is not being fully utilized because of the lack of day use facilities.
2. Broughton Beach is the only public access to the Columbia River between Kelley Point Park and Rooster Rock Park, a distance of 30 miles and should be improved to accommodate the recreational demand close to the urban center.
3. There is an absence of permanent public restrooms, trails, picnic tables and related site furniture and picnic shelters.
4. Signing is nonexistent to alert day users of the dangers by tugboat and barge wake, and for interpretive purposes along the Columbia Shoreline.
5. There is a conflict between motorized and non-motorized boaters, personal water craft and day use activities along the shoreline area.

Operations and Maintenance Funding

1. The revenues currently generated by the user fees are inadequate to fund the operating and maintenance activities required at this site.
2. The current user fee structure does not recognize the wide variety of boat ramp users and further research is required to implement a more equitable fee system.
3. Based on comments from many commercial users of the facility, it is apparent that some commercial users are not paying the day use fees currently required. This may be the result of a misunderstanding on the part of the commercial users who believe that the fee only applies to those actually parking at the facility. This misconception should be clarified and, at a minimum, commercial users should pay the same posted fee paid by typical recreational boaters.
4. There is no current evidence to support a conclusion that commercials users have significantly interfered with recreational boaters' uses of the facility. Commercial use should be monitored to determine if conflicts exist. If conflicts are identified, Metro should implement time restrictions to resolve the problem.
5. There is no current evidence to support a conclusion that commercial users create a disproportionate level of wear and tear on the facility. Again, this use should be monitored and restrictions imposed as needed to resolve specific problems. An exception to this finding is noted in the use of drop off and delivery of large solid waste drop boxes. In the event that the ramp is reconstructed utilizing grooved concrete, the practice of allowing the drop off and delivery of large drop boxes should be terminated unless accommodations can be made by commercial users which would ensure against damage to the facility.
6. Clearly, the primary purpose of this facility is to serve the needs of the typical recreational boater. Commercial uses are a secondary function. Design of the facility should maximize opportunities for traffic flow, and launching efficiency and parking capacity for the primary purpose. Final design and engineering should incorporate reasonable modifications which will allow continued access by large vehicles.

Existing Structures

1. The River Patrol building should be removed for the following reasons:

- The existing River Patrol Office Building was analyzed for its ability to be remodeled to accommodate the needs described in Section II. The City of Portland Bureau of Buildings was contacted to see if they would consider the office facility to meet the State of Oregon "essential facility" requirements. The definition of "essential facility" is found in ORS 455.447(1) and regulates certain structures vulnerable to earthquakes. These requirements add approximately 25% to the design loads required for the building's structural systems. The Bureau of Buildings indicated they would consider the River Patrol Offices as having to meet the "essential facility" requirements. A structural engineer (Conlee Engineers Inc.) evaluated the existing building and made recommendations to bring the building up to meet current building codes including essential facility requirements. **See Appendix E.**

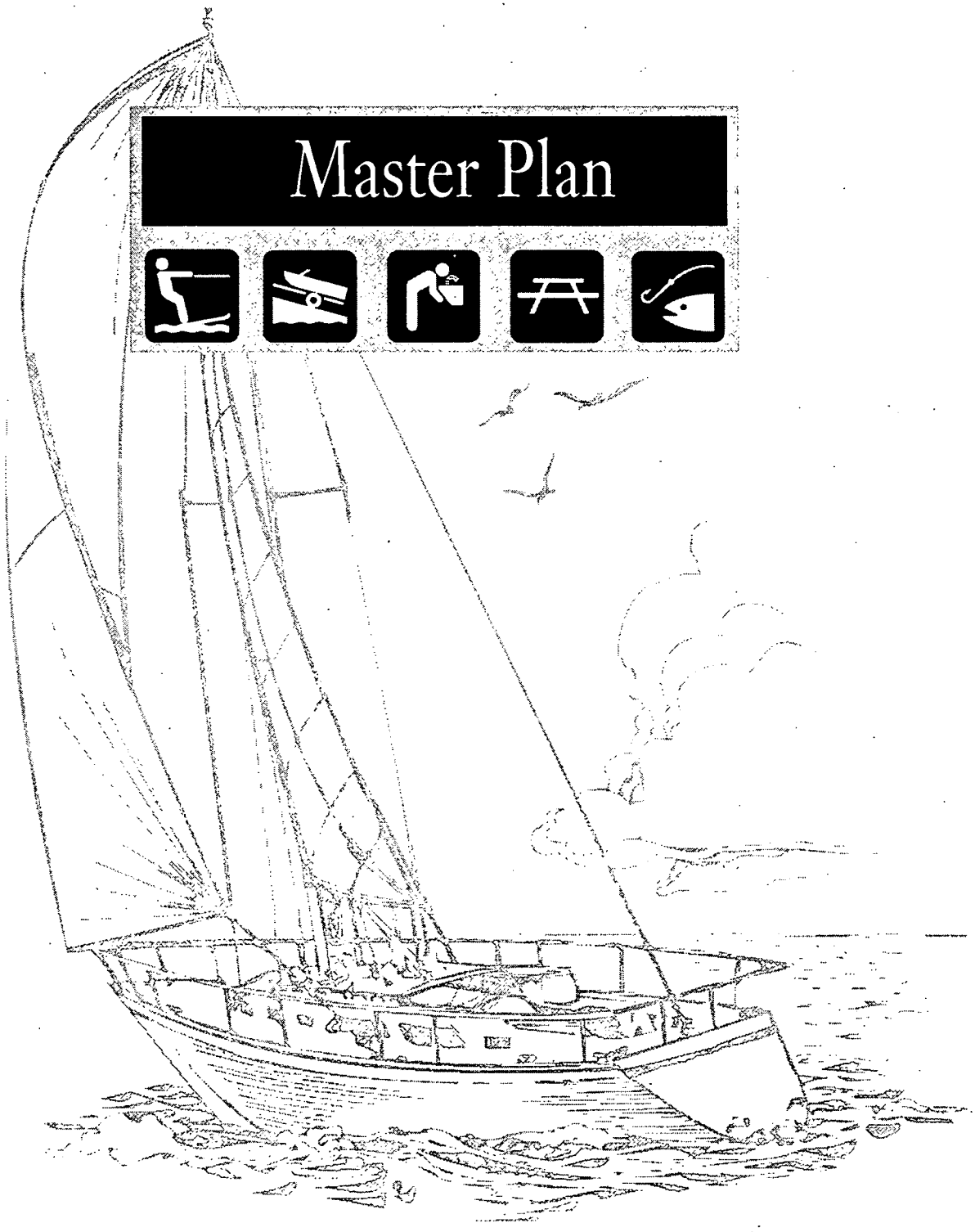
- The current River Patrol Office Building is sited within the 100 year flood plain. During the floods of 1996 the services bays were under 3 feet of water, and the main office was within 6 inches of being underwater. Damage to the existing building was repaired at a cost of $15,000.00

- The building has an outdated, inefficient HVAC (Heating, Ventilation and Air Conditioning) system. Multnomah County Facilities & Property Management, who manages the facility, has discussed replacing the existing system with a new system. Costs for the HVAC improvements is $20 - $25,000.00.

- The office facility does not meet current accessibility standards. The main office is 44 inches above grade and would require 44 feet of ramp for access from the parking area, plus landings. Costs for remodeling the entire building to meet current codes and for expansion for the Sheriff's River Patrol needs is $410,355.00.

- The current building location inhibits the efficient layout of the ramp, tie down areas, parking, and car and trailer circulation.

Master Plan



IV. MASTER PLAN

Boat Ramp and Associated Services -The first goal is to improve the efficiency and capacity of the boat ramp. A new five lane Boat Ramp with wider lanes and boarding floats is proposed to replace the existing ramp. As a part of replacing the existing ramp, the ramp will be shifted downstream slightly to permit more boat maneuvering room between the end of the ramp and the existing debris barrier. In order to improve the overall functioning of the ramp, five ready spaces and five tie down spaces have been provided. In addition, two lanes are proposed for the approach to the ramp in order to maximize the launch capacity of the ramp. **See Conceptual Site Plan Exhibit**. Other proposed riverfront improvements include:

- New transient boat dock for recreation boaters to load and unload passengers and supplies.
- Sanitary holding tank pump out station to permit the emptying of sanitary waste stored on board in holding tanks. A lift pump is to be added to improve the existing system.
- Debris boom to divert river debris, especially large logs, from damaging the debris barrier, the ramp and the transient boat dock.

A public restroom is proposed to serve the boat ramp and day use areas. The restroom building will be designed to accommodate the space requirements of the Coast Guard Auxiliary as well.

River Patrol - The existing River Patrol building and boat houses are proposed to be relocated downstream at the former Portage Marina property. As a part of constructing new River Patrol offices, space will be provided to accommodate Metro staff's on-site requirements as well. Some research has been conducted to determine the feasibility of contracting with a private developer to provide this space and to incorporate additional office space for lease to other users. Further research will be necessary to consider this option. This option could reduce capital expenditures significantly.

A new River Patrol boat dock with a multi-space boathouse and Fueling Station will replace the existing upstream facility. A boat and boat trailer storage facility for use by the River Patrol, is also proposed in this location. As an alternative, this facility could be located off site.

Day Use - The second overall goal of this Master Plan is to improve the ability of this site to accommodate day use recreation activities. In addition to providing parking spaces specifically dedicated for day use purposes, a range of day use amenities are proposed and include:

- An accessible fishing pier to provide an opportunity for anglers to enjoy this recreational activity. The pier may also be designed to accomodate a low profile dock for non-motorized boaters. The exact location will be determined pending further engineering study.
- Two picnic shelters for group picnic functions with a paved picnic table area.
- Volleyball court for beach front recreational activities.

- Individual covered picnic benches for bicyclists and pedestrians utilizing the 40 mile loop trail.
- A non-boating area adjacent to the primary day use area. This will ensure safe use by day use recreationists of the river's shoreline.
- Concession pad for trailered concessionaire with water and power.
- Convenient parking for non-motorized boaters.
- Non-motorized boat launching area north of the day use parking lot.

Access/Parking - Access and egress, vehicular circulation and the parking facilities are planned for improvement and expansion. Improvement to the internal vehicular circulation system will greatly improve the efficiency and therefore increase the capacity of the boat ramp. The existing access driveway is proposed to be closed and a new access driveway constructed at the westerly end of the property. This location has been selected to assure good sight distance entering and leaving Marine Drive and to permit better utilization of the overall site. The access is intended to be signalized with two exit lanes and one entrance lane. The signal is included in the Bureau of Environmental Services project to continue the 40 mile loop west to Columbia Boulevard. A left turn refuge is also proposed west of the access on Marine Drive. See Technical Memo #2 by Kittelson & Associates, Inc in the Appendix for additional information. An exit only driveway is proposed immediately east of the existing Cellular telephone tower. All proposed improvements will be coordinated with Portland Department of Transportation. (PDOT).

Upon entering the site, an entrance road has been designed to provide substantial queuing of vehicles with boat trailers and day use vehicles approaching the fee booth and the automated car counter. After paying the daily entrance fee, boaters and day users seeking on-site parking will proceed into separate parking areas. The parking has been divided into two areas: one for vehicles with boat trailers and one for single car parking only. A small parking area has also been provided to specifically serve the River Patrol/Metro office and boat maintenance facility.

The existing unimproved parking lot south of Marine Drive is intended to be closed when the new on site Day Use Parking lot is completed. The Drainage District needs this area for storage of fill material in the event of serious Columbia River flood levels that may cause a breach in the dike.

The number and type of parking spaces for the entire site are illustrated in the following table. Throughout the planning process there was a concern regarding the seasonality of the new and expanded parking lots. Expanding transit service to serve this facility during the peak months was explored. Transit is not viable for recreation boaters trailering their boats for launching at this site, however, may be useful to day-use visitors. Metro will continue to explore the concept of peak season shuttle parking arrangements with Tri-Met and other interested parties. The advisory committee investigated the possibility of shared parking arrangements which would utilize more efficiently the existing and proposed parking at the facility. Unfortunately, to date no alternative parking uses have been identified. However, the notion of shared parking will continue to be explored.

The parking area storm water system will be designed to maximize bio-filtration and minimize pollutants reaching the Columbia River.

During the master plan review process by Metro, three alternative approaches to implementing the Day Use parking area illustrated on the Concept Plan have been identified. These include:

- Construct 214 Day Use Lot spaces as illustrated in the Concept Plan.
- Improve 50% of the 214 spaces to full city standards and provide a gravel surface for the remaining 50%.
- Construct the 214 Day Use spaces in two phases. Proceed with Phase II based on the utilization of the first phase.

The master plan will need to go through the City of Portland Environmental Review process as described on page 27 of this report. This process, along with further study by Metro, will determine which of these alternatives is finally implemented. Table II below is based on providing all 214 parking spaces

Table II
Parking Spaces Type and Number

Location	Type of Space	Number	
Boat Ramp Lot		Trailer	Single
	Boat Trailer Spaces	194	
	Disabled Boat Trailer Spaces	6	
	Single Reserved for River Patrol		2
	Single Car Parking		11
	Disabled Single Car Parking		2
	Sub-Total:	200	15
Day Use Lot			
	Single Car Spaces		145
	Boat Ramp Related Single Car		64
	Disabled Single Car Spaces		5
	Sub-Total:		214
River Patrol Lot			
	Single Car Spaces		11
	Disabled Single Car Spaces		1
	Total:	**200**	**241**

Bike Parking will be provided in strategic locations and in accordance with applicable code.

The on-site day-use parking area has been specifically provided to replace the unimproved parking lot on the south side of Marine Drive across from the site. In addition, it is intended to reduce the number of vehicles seeking to park in the Marine Drive right of way where parking is limited and unsafe. Metro intends to work with the City of Portland's Department of Transportation (PDOT) to determine the most appropriate parking regulations for Marine Drive adjacent to this site.

The unimproved parking lot on the south side of Marine Drive may be utilized for other related uses including:

- Stockpiling rocks to reinforce the flood control dike by the Drainage District.
- Storage of dredged Columbia River sand from boat ramp related maintenance dredging.
- Boat and boat trailer storage for Multnomah County's River Patrol.

Boat Trailer Storage
River Patrol Building
Single Car Parking
12 spaces
Multi-Space Boat House
Fuel Dock
Debris Boom
5 Lane Boat Ramp
Transient Boat Dock
with Pump Out
Removeable Bollards
Tie Down Area
Non-Boating Area
Fishing Pier
Public Restroom
Coast Guard Auxilary
Ready Area
Single Car Parking
14 Spaces
Seasonal Concession Area
Picnic Shelters
Covered Benches
Volley Ball Court
198 Boat Trailer Spaces
64 Single Car Boat Ramp Related Spaces
150 Single Car Spaces
Marine Drive
Marine Drive Entrance & Exit
Dedicated Left Turn Lane
Traffic Light
Bicycle Crossing
New Bike Trail
Exit Only
Cell Tower
Ticket Booth
Existing 40 Mile Loop Trail
See Sheet 2
NORTH
1"=40'

COLUMBIA RIVER MANAGEMENT UNIT MASTER PLAN

The Benkendorf Associates Corp.
522 S.W. 5th Avenue
Portland, Oregon 97204

METRO
600 N.E. Grand Avenue
Portland, Oregon

Richard E. Ragland, AIA
Hobson Johnson & Associates
Ogden Beeman & Associates
Kittelson & Associates, Inc.

COLUMBIA RIVER

See Sheet 1
Non-Boating Area
Water Ski Launch Area
Existing Pile Dike
Property Line
New Port Access Road w/ Relocated Levee
Barge Loading & Unloading
400'
MARINE DRIVE
Existing Sea Scout Moorage
Existing Pile Dike
Property Line
Proposed Dredge Material Disposal Site
Existing 40 Mile Loop

0 250' 500'
NORTH
1"= 250'

SHEET 2 OF 2

COLUMBIA RIVER MANAGEMENT UNIT CONCEPT PLAN

The Benkendorf Associates Corporation 522 S.W. Fifth Street Portland, Oregon 97204	METRO 600 N.E. Grand Avenue Portland, Oregon	Richard E. Ragland, AIA Hobson Johnson & Associates Ogden Beeman & Associates Kittelson & Associates, Inc.

Other Site Improvements - There are some additional improvements that are proposed to improve the overall desirability of this facility for recreation purposes. These include:

- Seasonal Concession Area that provides a paved site with water and power for vendors during the Summer Season. This use has been sited mid-way between the boat ramp and day use parking areas.
- Coast Guard Auxiliary space as a part of or in conjunction with the restroom building.
- Removable bollards in the Boat Ramp turn around area. These bollards are designed to separate the ramp from a parking lot travel lane, yet be removable when additional maneuvering space is needed to launch boats or other items on the ramp. Gates may be considered instead of bollards.
- 40 Mile Loop Trail Extension from the existing terminus to the new entranceway with a designated signalized, crossing of Marine Drive. The trail is intended to be constructed by the City of Portland's Bureau of Environmental Services (BES) as part of their Inverness Force Main Project. Metro will continue to communicate with the BES to insure project coordination.
- Landscape improvements designed to enhance the appearance of the entire site as a recreation area. The landscape improvements have been designed to comply with the City of Portland Landscape Design Standards. See Section V - Implementation for additional information on the City of Portland's Design requirements.
- Landscape plants will be selected that are native, low maintenance and tolerant of the Columbia River's shoreline environmental conditions. No formal lawn areas are anticipated.

Dredged Material Disposal Area - During the course of the Master Planning process, the need to provide an area for maintenance dredging of the boat ramp and associated water side improvements was identified. There is a City of Portland public right of way on the south side of Marine Drive that may be suitable as a dredged material disposal transfer site. Based on a discussion with the City staff, use of the right of way for disposal purposes will require approval by the City. Staff recommended that when the need is more specifically identified, a written request be forwarded to the City Engineer, currently Victor Rhodes, requesting use of the right of way for dredged material disposal purposes. The details of permitting this use will need to be negotiated between the City, Metro and probably the State Marine Board.

Long Range Opportunities - Following the implementation of the initial phases of the Master Plan, additional opportunities to enhance the Broughton Beach area should be considered. These have not been included in the Site Plan or the cost estimates. Some of these opportunities include:

- Expanding the trail network
- Providing additional signage that interprets the site and the Columbia River at this location.
- Enhancing additional natural areas with new landscape planting.
- Providing bicycle related route signage, resting areas and other amenities.
- Additional day use activity areas and shoreline related improvements.

Operations - During the Master Planning process a series of operational issues have been identified. These issues include:

Hours of Operation - The preliminary policy regarding the hours of operation is as follows:

Boat Ramp - Open 24 hours per day seven days per week

Day Use - Open during daylight hours - exit after dusk only and open seven days per week.

Non-Boating Area - A non-boating and personal watercraft area has been identified adjacent to the primary Day Use facilities. A multi-lingual signage program should be implemented to alert day users that individual activities in the water are conducted at their own risk.

Federal, State and City Permit Requirements - The in-water Columbia River improvements will require federal and state permits. The upland improvements will require an Environmental Review permit from the City of Portland. Permitting requirements include:

Federal (U.S. Army Corps of Engineers) 404 Section 10 permit will be required for the boat ramp, new transient and river patrol docks, the fishing pier as well as any additional rip-rap sections needed to protect the expanded parking lots.

Division of State Lands - A joint application for a 404 Section 10 permit will need to be prepared and submitted to the Corps and the Oregon Division of State Lands. The application is then circulated to all federal, state and local agencies participating in the permit review process. The application also includes a section regarding the status of the local zoning or design review permit. For that reason, receiving the City permit is required prior to obtaining the Corps of Engineers permit. The time frame for receiving a permit is generally listed by the Corps and DSL as three months, but experience suggests six to nine months is more realistic.

City of Portland - An Environmental Review permit is required prior to construction of any new site improvements. The Environmental Review permit requires the submission of a Site Plan, Construction Management Plan and a Mitigation Plan. Because new and expanded parking lots and buildings are included in the Master Plan, review of the application will follow a Type III procedure. A Type III procedure requires public notice and a public hearing in accordance with City of Portland procedures. The specifics of how the Master Plan complies with the City requirements is described below:

A Conditional Use Permit will be required for the expanded and new parking areas that are in the Open Space (OS) zone. All of the parking areas on the Broughton Beach part of the site are in this zone.

Parking and Zoning requirements 33.266.130 - The marina, day-use, and storage parking areas of this site plan fall under the City of Portland's Title 33 Planning and Zoning requirements governing the development of parking areas as described in Chapter 33.266.130 of the Motor Vehicle Parking Section of that document. The site is zoned IG2 and OS. In addition, Chapter 33.480 governing Scenic Resource Zones also applies to the site.

Landscaping requirements for the parking areas fall into two main categories: interior landscaping and perimeter landscaping.

Perimeter Landscaping Requirements

Condition 1

As an IG2 zone, the minimum perimeter landscaping requirement is for a fifteen foot setback along the property line adjoining Marine Drive and along the parking entrance and exit drives meeting an L1 Landscaping Standard. This requirement is exceeded by the site plan which allows for a thirty-foot setback along Marine Drive and the required fifteen feet along the entrance and exit drives.

The tree planting requirement for the perimeter landscaping is for one tree to be planted for every thirty linear feet of setback. This translates into a requirement for sixty trees along the 1,800 linear-foot setback adjoining Marine Drive and for fourteen trees to be planted along the parking entrance and exit drives. The plan exceeds this requirement by ten trees. The site plan places seventy trees along Marine Drive, and fourteen trees along the drive setbacks.

All perimeter tree are to be planted in naturalistic groupings of mixed evergreen and deciduous trees. In addition to the screening provided by the trees and the generous setback, the berming effect of the dike itself will also enhance the screening of the parking lot from Marine Drive.

Condition 2

As an IG2 zone, the minimum perimeter landscaping requirement for the west property line adjoining commercial property is for a ten foot setback of L1 Landscaping. This site plan exceeds that minimum requirement by almost double the square feet of landscape area. The minimum tree planting for this length of perimeter landscaping is six trees, the site plan exceeds this by two trees.

Condition 3

The Scenic Corridor Standards require mitigation for blank building facades in excess of 100 feet along scenic corridors. The Boat Trailer Storage Building has a length of 110 feet. A double row of trees, one evergreen and one deciduous, is to be planted along Marine Drive to meet these mitigation requirements.

Interior Landscaping Requirements

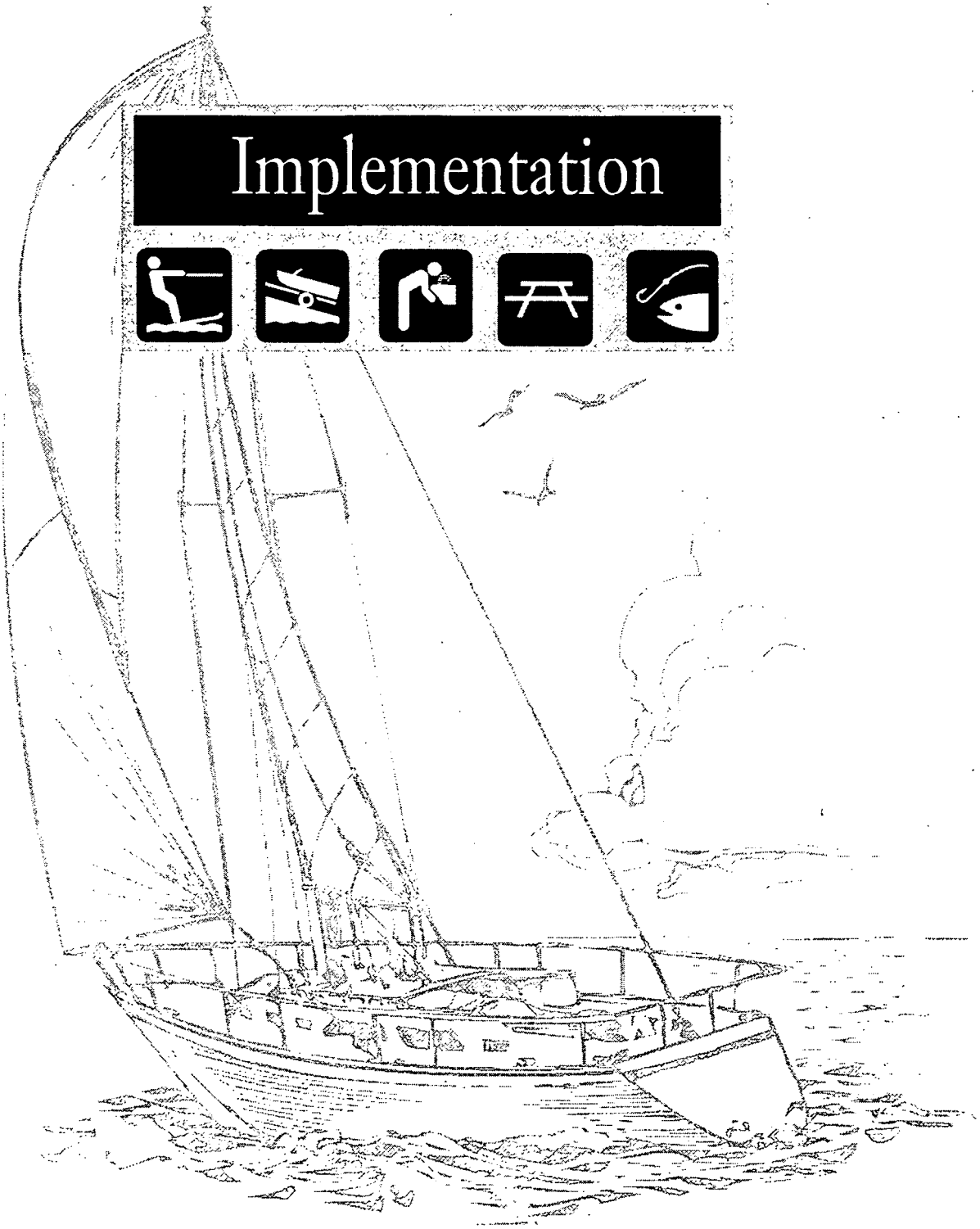
The Master Plan was designed to meet Option 2 of the Parking area interior landscaping code requirements. The code requires one tree for every four parking spaces and four foot wide parking area landscape islands.

The pull-through marina parking spaces required on this site have been counted as two spaces each for planning purposes to meet the City requirements. The tie-down and ready area spaces have been counted as three spaces each. The total number of *plan* parking spaces resulting from these calculations is:

	Spaces	**Trees**
Marina Parking	439	110
Day-Use and Marina Spill-over	214	54
River Patrol & Boat Storage	11	3

The interior landscaping requirements governing this site also require that the interior landscaping be dispersed throughout the parking area. For this reason, each of the parking areas above have had their landscape requirements calculated separately.

Implementation



V. IMPLEMENTATION

Phasing - The Columbia River Management Unit is intended to be improved over a number of years. Completion of the Master Plan represents the first phase of planning the Boat Ramp, Portage Marina property and Broughton Beach as a unit. Future phases are intended to implement the Master Plan over time as funding becomes available. The phases are currently proposed as follows:

- **Phase I - Years 1-2:** Planning, including engineering and permitting for Phase IV improvements.
- **Phase II - Years 2-3:** New Entrance and Marine Drive 40 Mile Loop Trail Crossing.
- **Phase III - Years 3-4:** Relocate River Patrol and Boathouses.
- **Phase IV - Years 2-4:** Boat Ramp, related parking, circulation and Restroom.
- **Phase V - Years 3-10:** Day Use parking and other site improvements.

Phases III through V may be divided into additional phases depending upon the availability of funds.

Revenues - Operating revenues at the facility are primarily from day use fees, which are directly related to attendance and fee levels. In addition, the facility receives roughly $4,000 per year from the State Marine Board's Maintenance Assistance Program (MAP). Attendance has varied widely, ranging from under 38,000 persons in 1995-96 to over 66,000 persons in 1991-92. This variation can be primarily attributed to annual weather pattern variations, and will be an ongoing characteristic of the facility. As a result, annual revenues will vary significantly from year to year, resulting in a relatively unpredictable revenue stream. Day use fees are currently $3.00 per vehicle. Future facility pricing will represent market-level pricing, and is not anticipated to impact usage levels measurably. **See Table 3.**

The boat ramp has operated at a roughly break-even rate over the last decade, excluding interfund transfers. The proposed capital improvements are expected to increase both capacity and utilization of the facility, increasing both revenues and costs. Annual attendance is based on an assumption of full capacity on in-season weekends (Mid June through September), with in-season weekday usages at 30% of capacity. In the off-season, weekends are assumed at 10% of capacity while weekdays are assumed at 5% of capacity.

Operating Expenditures - The increased capacity represented by the proposed improvements will also increase operating costs at the facility. Assumed operating costs at the facility are broken out in **Table 4**. Four major operating cost categories are identified, including personnel, maintenance & service, interfund transfers and a facilities maintenance fund. The facility maintenance fund represents an estimate of the annualized cost of periodic maintenance-related capital expenditures, such as basin dredging, pile replacement and log boom repair. Costs are forecast to increase at a rate of 3% per year.

Table III

SUMMARY OF FORECASTED OPERATING REVENUES/LOSSES
M. JAMES GLEASON BOAT RAMP
1997-2004

	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Attendance/Persons	42,938	42,939	42,939	61,481	61,481	61,481	94,894
Day Use Fee/Vehicle	$3.00	$3.00	$3.00	$4.00	$4.00	$4.00	$4.00
Day Use Fee	$37,313	$37,313	$37,313	$71,058	$71,058	$71,058	$109,244
MAP Funding	$4,000	$4,000	$4,000	$2,250	$2,250	$2,250	$2,250
Marine Fuel Tax	$16,316	$24,000	$26,027	$15,233	$17,879	$23,199	$698
Estimated Revenues	$57,629	$65,313	$67,340	$88,541	$91,187	$96,507	$112,192
Operating Expenditures							
Personnel Services	$36,135	$37,219	$38,336	$46,401	$47,793	$49,227	$56,486
Maintenance & Service	$16,494	$16,994	$17,504	$23,188	$23,742	$26,899	$34,567
Interfund Transfers	$5,000	$5,100	$5,200	$12,337	$12,707	$13,088	$13,480
Proposed Facility Maintenance Fund 3/	$0	$6,000	$6,300	$6,615	$6,946	$7,293	$7,658
Estimated Net Operating Revenue	$0	$0	$0	$0	$0	$0	$0
Capital Expenditures1/							
Planning & Engineering	$165,000	$40,000	$0	$0	$0	$0	$0
New Entrance	$0	$69,300	$0	$0	$0	$0	$0
Boat Ramp, Parking, Circulation	$0	$0	$600,000	$600,000	$578,000	$0	$0
Day Use Facilities	$0	$0	$0	$0	$0	$236,995	$236,995
State Marine Board Grant Proceeds 2/	$95,000	$30,000	$450,000	$450,000	$433,500	$0	$0
Metro Match	$30,000	$10,000	$150,000	$150,000	$48,167	$0	$0
Other Metro Outlays	$0	$34,650	$0	$0	$96,333	$236,995	$236,995
Other Marine Board Outlays		$34,650	$0	$0	$0	$0	$0
Oregon Dept. of Fish and Wildlife	$40,000						
Net Metro Outlay	$30,000	$44,650	$150,000	$150,000	$144,500	$236,995	$236,995
Cumulative Metro Outlay	$30,000	$74,650	$224,649	$374,649	$519,150	$756,145	$993,140

1/ Includes a 10% contruction contingency, 15% project administration, inspection and survey, and 10% design and engineering.

2/ Assumes a 75% grant for boat ramp, access and utilities, with a 25% local match from Metro.

3/ Represents proposed contributions to a dedicated fund for periodic maintenance, such as dredging.

SOURCE: Hobson Johnson & Associates

Table IV

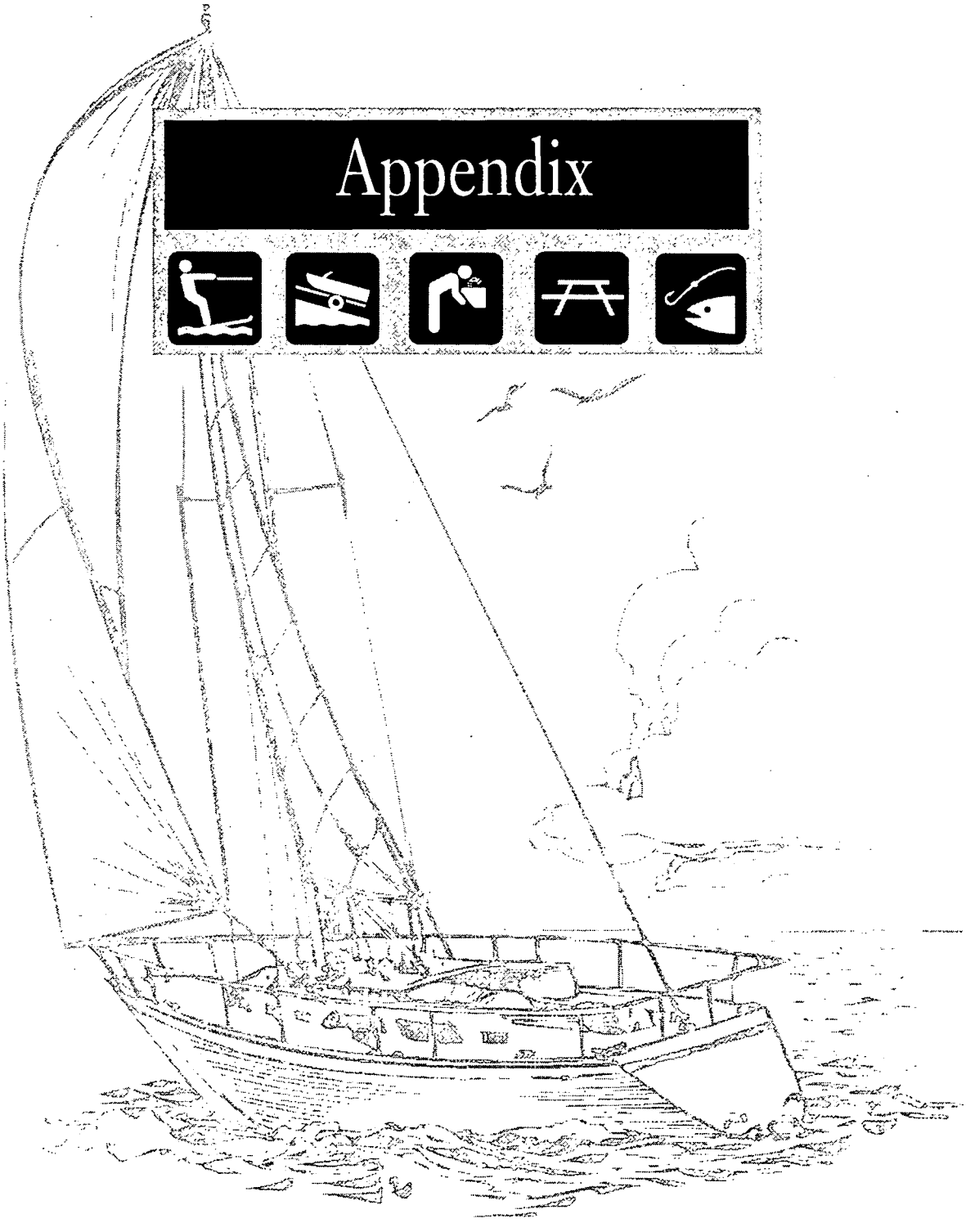
DETAIL OF ANTICIPATED OPERATING COSTS
M. JAMES GLEASON BOAT RAMP
1997-2002

	97-98	98-99	99-00	00-01	01-02	02-03	03-04
Personnel Services							
0.50 FTE Park Ranger	$23,509	$24,214	$24,941	$25,689	$26,460	$27,253	$28,071
0.50 FTE Seasonal	$8,535	$8,791	$9,055	$9,326	$9,606	$9,894	$10,191
0.25 FTE Seasonal	$4,267	$4,395	$4,527	$4,663	$4,803	$4,947	$5,095
Total Personnel Services	$36,311	$37,400	$38,522	$39,678	$40,868	$42,094	$43,357
Maintenance & Service							
Office Supplies	$50	$52	$53	$55	$56	$58	$60
Landscape Supplies	$200	$206	$212	$219	$225	$232	$239
Custodial Supplies	$800	$824	$849	$874	$900	$927	$955
Graphics/Reprographic Supplies	$25	$26	$27	$27	$28	$29	$30
Small Tools	$150	$155	$159	$164	$169	$174	$179
Maintenance & Repair Supplies	$9,375	$9,656	$9,946	$10,244	$10,552	$10,868	$11,194
Utilities-Electricity	$4,100	$4,223	$4,350	$4,480	$4,615	$4,753	$4,896
Utilities-Water & Sewer Charges	$3,550	$3,657	$3,766	$3,879	$3,996	$4,115	$4,239
Utilities-Sanitation Charges	$1,500	$1,545	$1,591	$1,639	$1,688	$1,739	$1,791
Maintenance & Repair-Equipment	$450	$464	$477	$492	$506	$522	$537
Equipment Rental	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159	$1,194
Printing Services	$1,100	$1,133	$1,167	$1,202	$1,238	$1,275	$1,313
Telephone	$340	$350	$361	$372	$383	$394	$406
Training, Tuition, Conferences	$300	$309	$318	$328	$338	$348	$358
Uniform Supply	$350	$361	$371	$382	$394	$406	$418
License, Permits, Payments to Agencies	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$0
Total Maintenance & Service	$29,290	$29,989	$30,708	$31,450	$32,213	$32,999	$27,809
Interfund Transfers							
Indirect Costs to Support Services	$8,292	$8,541	$8,797	$9,061	$9,333	$9,613	$9,901
Direct Costs to Support Services	$28	$29	$30	$31	$32	$32	$33
Indirect Costs to Risk-Liability	$428	$441	$454	$468	$482	$496	$511
Indirect Costs to Risk-Workers Comp	$223	$229	$236	$243	$251	$258	$266
Indirect Costs to Bldg. Management Fund	$2,319	$2,388	$2,460	$2,534	$2,610	$2,688	$2,769
Total Interfund Transfers	$11,290	$11,628	$11,977	$12,337	$12,707	$13,088	$13,480
Facility Maintenance Fund 1/	$6,000	$6,180	$6,365	$6,556	$6,753	$6,956	$7,164

1/ Represents estimated contributions to a dedicated fund for periodic maintenance, such as dredging.

SOURCE: Metro and Hobson Johnson & Associates

Appendix



APPENDIX

A. Survey of Existing Facility Conditions

B. Building Program Summary

C. Preliminary Site Improvement Costs

D. Baseline Maintenance Standards.

E. River Conditions

1. Ogden Beeman & Associates, Inc Memo dated April 14, 1997
2. Ogden Beeman & Associates, Inc Memo dated May 30, 1997

F. Marine Drive - Accessibility Analysis

1. Technical Memo#1 - Kittelson & Associates Inc.
2. Technical Memo#2 - Kittelson & Associates Inc.

G. Market Assessment

1. Commercial Potential Memo - Hobson Johnson & Associates
2. Achievable Office Lease Rates Memo - Hobson Johnson & Associates

H. Commercial Users - Questionnaire Summary

I. Preliminary Structural Evaluation – River Patrol Offices

J. Runway Protection Zone Plan Maps

K. Letters from the Public

Appendix A - Survey of Existing Facility Conditions

A. Survey of Existing Facility Conditions

1. Docks

A. Upriver Docks

260 feet of dock (13 twenty food sections)

Condition: Condition of these docks is poor. Hinges and pins are falling on all sections and have been either replaced or repaired multiple times. The decking is rotting and sections are constantly replaced; bull rails are also broken and rotting and are under a continuing replacement program; flotation for all these docks (and the down river sections also) is styrofoam filled tires - which often break off and sink into the basin - all flotation for these docks should be replaced with encapsulated foam.

B. Downriver Docks

170 feet of dock (8.5 twenty foot sections)

Condition: Same as the upriver docks with the exception that these docks do not break apart as often because they are more protected from the harsh weather conditions and boat wake.

C. Signage

All dock signs need to be replaced (regulations/warnings)

II. Basin

A. Hydrologically, this basin is susceptible to siltation which requires periodic dredging (8-10 year frequency). This has seen some recent changes due to adverse weather conditions and sustained high water events in the past 2 years. Currently, there is a large volume of sand in the basin which is affecting boat traffic inside the basin, boats which are in the process of launching, and the River Patrol's boathouses.

B. Current baseline management in the basin includes digging out the upper 40+ feet of area under the upriver docks whey they get uplifted by sand deposits. This occurs 4-6 time a year.

III. Gangways

A. Upriver Gangway

Upriver gangway is approximately 35 feet long, steel, with a concrete step on the upper end and rollers on the dock.

Condition: Marginal-fair, this gangway was damaged in the 1996 flood and the railings are beginning to fall where they attach to the ramp.

B. Downriver Gangway

Downriver gangway is the one which accesses the River Patrol's and Port's boathouses as well as the transient tie up dock and marine sewage disposal pumpout. Gangway is approximately 70 feet long, steel with rollers on the dock. Gangway also has power, water and sewage lines running along side and/or in railing (for boathouse and pumpout)

Condition: Good; decking has been surfaced with 3-tab to minimize slippage. Pilings in which the gangway is attached are wood, condition unknown.

IV. Pilings

Total - 23 wood pilings and 7 steel piles. The wood piles are directly associated with the docks and not the trash rack.

Condition: Marginal-fair; probably worthy of a marine survey. Dock attachments to the piles located closest to the boathouses are all severed (broken chain); during the 1996 flood, the downriver docks were resting on top of the existing pilings. Some of the trash rack piles were broken.

V. Fence

Total 230' east side (between parking lot and Broughton Beach); 200' north side (north end of east parking lot.)

Condition: Poor for the section on the east side between parking lot and Broughton Beach - approximately 200 feet is in need of replacement and gates need to be re-hung.

Fair for the section on the north side (north end of east parking lot) - with a replacement section in the northeast corner where people cut through the fence to access the beach (vs. going around).

VI. Curbing and railing.

A. Curbing throughout the park is in need of repainting.

Condition: Marginal.

B. Guard rail throughout park is in need of scraping and repainting to discourage rust.

Condition: Fair-good.

C. Wood railing west end - Approximately 185' long with 24, 8"x 8" posts and 2"x.' timbers.

Condition: Fair, with some replacement of posts and timbers and scraping of old peeling paint and repainting.

VII. Parking Area

A. Striping and directional arrows need repainting.

Condition: Poor.

B. Parking space labeling (vehicles with trailers only) needs repainting.

Condition: Poor.

C. Accessible parking for vehicles with trailers are not signed or marked.

Condition: Unacceptable

D. Larger boats and vehicles do not have adequate turning space or parking space (boats > 17 feet or so).

VIII. Facilities

Restrooms

Currently, there are NO permanent restrooms on site, toilet facilities are provided by a rental company; 2 during the summer, 1 during the winter, neither toilet is accessible.

VIIII. Garbage and Fee Collection

A. Garbage

There are two garbage cans (55 gallon drums) on site for users of the site plus a small dumpster next to the River Patrol office; household garbage is routinely dumped here and there is a problem with rodents and gulls/ravens.

Condition: Marginal; a design which is more aesthetically pleasing and better situated on site to better serve customers would improve garbage collection ability.

B. Fee Collections

There is a small fee envelope honor system in place. Due to awkward placement on the site and "invisibility" of the fee station - compliance is approximately 60%. Fee box is designed to be theft proof; and is however, its design is too small and the box often overflows during the high use season.

Condition: Marginal, need replacement.

Appendix B - Building Program Summary

B. Building Program Area Summary

River Patrol Offices-new stand alone building at Portage site

AREA/FUNCTION	CURRENT SF	%	PROPOSED SF	%	REMARKS
Entry/reception	66	2.42%	150	2.76%	Larger area for wheelchair accessibility
Open office area	257	9.41%	550	10.12%	
Lieutenants office	101	3.70%	150	2.76%	
Office subtotal	358	13.10%	700	12.88%	
Corridor	83	3.04%	200	3.68%	
Lunch Room/Lockers	190	6.95%	450	8.28%	Provide this in two separate rooms
Toilet/shower-offices	64	2.34%	200	3.68%	Provide separate Men's & Women's toilet/showers
Service Bay 1-large	723	26.46%	800	14.72%	Size 20' x 40' -new
Ancillary storage at Service Bay	127	4.65%	125	2.30%	
Service Bay 2-small	565	20.68%	800	14.72%	Size 20' x 40' -new
Service Bay 3-future			800	14.72%	Size 20' x 40' - new
Service Bay subtotal	1,415	51.79%	2,525	46.46%	Provide three equal bays, built in one room
Storage 1	91	3.33%	150	2.76%	
Storage 2	112	4.10%	150	2.76%	
Storage 3 (sewage pump shed)	28	1.02%	150	2.76%	
Storage subtotal	231	8.46%	450	8.28%	Storage can combine into various room sizes
Interview Room			150	2.76%	Small conference
Utility Room			35	0.64%	mop sink
Subtotal	**2,407**	88.10%	**4,860**	89.42%	
Storage area	102	3.73%	150	2.76%	This could combine with storage areas on floor
Generator shed	223	8.16%	225	4.14%	
Metro office/storage			200	3.68%	
Grand Total:	**2,732**	100.00%	**5,435**	100.00%	

River Patrol Boathouses-new building and docks at Portage Marina site

AREA/FUNCTION	CURRENT SF	%	PROPOSED SF	%	REMARKS
Small boathouse 1	658	15.98%			
Small boathouse 2	658	15.98%			
Small Boathouse 3	658	15.98%			
Large Boathouse	1,043	25.33%	4,840	100.00%	
Boathouse subtotal	3,017	73.28%	4,840	100.00%	Combine into one boathouse, replace existing
Port fireboat house	1,100	26.72%			Has room for 6 boats, 2 office/storage areas (heated)
Grand Total	**4,117**	100.00%	**4,840**	100.00%	Included in above

River Patrol Trailer/Boat Storage-at Portage Marina site

AREA/FUNCTION	CURRENT SF	%	PROPOSED SF	%	REMARKS
Storage at Portage building	2,900	100.00%	3,000	100.00%	
Trailer storage total	**2,900**	100.00%	**3,000**	100.00%	Locate at Portage site near new offices. Roof cover

Public Restrooms-single building for Boat and Day users

AREA/FUNCTION	SIZE	PROPOSED SF	%	REMARKS
Toilet Stalls				
Standard stall-10	5'-8" x 8'-4"	475	56.68%	
Accessible stalls-2	6'-4" x 8'-4"	105	12.53%	Accessible & able to be winterized
Stall subtotal		580	69.21%	
Utility chase	3'-6" x 35'-0"	122	14.56%	
Storage room	6'-8" x 11'-6"	80	9.55%	For general supplies, beach/ramp area clean-up
Vending machine area	6'-6" x 8'-6"	56	6.68%	Secure with coiling door, open to exterior
Grand Total		**838**	100.00%	

Ticket Booth

AREA/FUNCTION	SIZE	PROPOSED SF	%	REMARKS
Ticket booth	6'-0" X 12'-0"	72	100.00%	Extended roof overhang for sun protection
Grand Total		**72**	100.00%	

Picnic Shelter

AREA/FUNCTION	SIZE	PROPOSED SF	%	REMARKS
Picnic Shelter	20'-0" X 44'-0" at 2	1,760	100.00%	Hold 50 people each at picnic tables
Grand Total		**1,760**	100.00%	

Appendix C - Preliminary Site Improvement Costs

C. Preliminary Site Improvement Costs

C. Preliminary Site Improvement Costs

The following improvement costs have been prepared utilizing 1997 dollars. To the extent possible, the FY 1997 Conceptual Cost Estimating sheet prepared by the Oregon State Marine Board has been used. Responsibility for improvements proposed in the Master Plan are expected to be shared by: Metro for the Day Use Area, Marine Board for the Boat Ramp and Multnomah County for the River Patrol Building and related boathouse, dock, etc. This expectation is subject to the typical appropriation process of each of these agencies.

	Unit Price	Cost
Boat Ramp		
5 Lane Ramp & Floats - 110' x 230'		$ 290,000
Transient Docks:		
• Boat Ramp (400')		60,000
• Fueling Docks (200')(River Patrol)		30,000
Ramps (Gangways):		
• Boat Ramp Transient Docks		30,000
• Fueling Dock Transient Docks (River Patrol)		30,000
Debris Barrier (250')	30,000	30,000
Fueling Station (River Patrol)		40,000
Sanitary Sewer Pump Station		12,000
Parking- 202 Trailer/13 Single Car - 64 Single Car (Located in Day Use Lot)	1,200 & 800	304,000
Rip-Rap		90,000
Signage		2,500
	Sub-total	**$918,500**
Access		
Roads	85.00	38,300
Channelization (Left turn channel lane on Marine Dr.)	L.S.	31,000
	Sub-total	**$ 69,300**

Buildings			
	Demolition	L.S.	151,200
	River Patrol	L.S.	679,375
	Restroom	L.S.	200,000
	Boathouse	L.S.	314,700
	Trailer Storage	L.S.	105,000
	Picnic Shelters x 2	L.S.	79,200
	Ticket Booth	L.S.	14,400
		Sub-total	**$1,543,875**
Day Use			
	Parking- 150 single car	800	120,000
	Volleyball Standards	L.S.	1,000
	Concrete Walks (7,000 sq. Ft.)	2.15	15,000
	Bicycle Kiosk & Racks	L.S.	15,000
	Picnic Tables & Benches-12	400	10,000
	Covered Picnic Tables	5,000	25,000
	Non-Boating Area Warning Floats	L.S.	1,000
	Fishing Pier & Access Trestle (2000 ft.)	L.S.	110,000
	Area Lighting	L.S.	25,000
	Concession Pay & Utilities	L.S.	15,000
	Signage	L.S.	10,000
	Bollards - 25	200	5,000
		Sub-total	**$ 352,000**

Utilities		
Storm Drainage	$40 L.F.	78,800
Sewer	$50 L.F.	49,000
Water	$60 L.F.	58,800
Power	$15 L.F.	9,000
	Sub-total	**$ 195,600**
Natural Resources		
Landscape Planting	$1.50 sq. ft.	150,000
Enhance Natural Habitat Area	L.S.	25,000
	Sub-total	**$ 175,000**
	Sub-Total All	**$3,254,275**

Cost

Construction Contingency @ 10%		**$ 325,428**
	Sub-total	**$3,579,703**
Project Admin., Inspection & Survey @ 15%		**$ 536,955**
Project Design/Engineering @ 10%		**$ 357,970[1]**
	TOTAL	**$ 4,474,628**

[1]Does not include services during construction.

PROJECTED COST SUMMARY

Final Plan

Use	Area (Sq. Ft.)		Cost/SF		Cost	Comments
River Patrol						
Demo existing	2732	@	$15.00	=	$40,980	
New Office Building	6010	@	$125.00	=	$751,250	Includes Metro office & service bays
Total					$792,230	
River Patrol-boathouses						
Demo existing	4117	@	$12.00	=	$49,404	
New boathouse	4841	@	$65.00	=	$314,665	
Total					$364,069	
River Patrol-boat storage						
Demo Portage	4054	@	$15.00	=	$60,810	
New boat storage	3000	@	$35.00	=	$105,000	roof cover, open sided, fenced, conc. slab
Total					$165,810	
Public Restrooms						
New restroom	838	@	$200.00	=	$167,600	combined for boat/dayuse
Total					$167,600	
Ticket Booth						
New ticket booth	72	@	$200.00	=	$14,400	includes extended roof cover, site work
Total	72				$14,400	
Picnic Shelter						
New picnic shelters	1760	@	$45.00	=	$79,200	two shelters
Total	1760				$79,200	

Appendix D - Baseline Maintenance Standards

D. Baseline Maintenance Standards

The **objective** of these baseline maintenance standards is to establish schedules and procedures which will maximize the life expectancy of park facilities, maintain a safe and pleasurable recreation area for the public, and provide an atmosphere which will in turn encourage public appreciation of, and care for, the facility.

This boat launching facility is fee based. There is a $3.00 fee for use of the facility. All visitors pay for use of the site.

At the time of this draft, there is discussion of improving the launch facilities at M. James Gleason Boat Launch. Below is a list of the **facilities/structures** and **landscape features** currently maintained by METRO.

Facilities/Structures

- Fee station and signage; fee collection and station/sign maintenance and replacement
- Docks and floats (both E and W sides of basin); float replacement, decking/bullrail repair, pin and hinge repair.
- Trash rack; depbris removal, inspection.
- MSD pumpout station; daily inspection and inspection and repair, off-season decommissioning.
- Gangways; general repair and welding.
- Parking lot; striping and signing as needed.
- Fencing; repair as needed.

Note: There are no permanent facilities which house restrooms on site. Porta-potties are located on site and are maintained by a contractor. Two toilets are on-site from May 1 until September 30. One toilet is on-site from September 30 until April 30.

Landscape

- Turf area between the west parking lot and Marine Drive: mowing, aerating, fertilizing.
- Broughton Beach from east parking lot to pile dike to the east: garbage and debris pickup
- Rip-rap bank along both east and wet parking lots: garbage and debris pickup
- Launch basin: dredging every 7-10 years
- Garbage barrels (1-2 barrels)

Maintenance Schedule

Year-around Maintenance Activities:

Fee collection from envelope box located on site: Frequency; 2-3 times per week during off-season — daily during summer season with twice daily collections on weekends. Stock envelopes in fee box.
Compliance checks for adherence to Metro Code: As needed and as observed. Commissioned staff will conduct compliance checks during course of business at M. James Gleason Boat Launch.

MSD operation: Ensure that MSD is operating properly. This should be done daily during busy season.

Safety Items.

Docks to be inspected daily for missing pins and/or broken hinges, condition of dock wood, and flotation.

Gangways to be inspected for stability.

Parking lot - broken glass, garbage

Trash cans emptied daily during summer, and as needed during rest of year. Multnomah County Vector Control to be notified if evidence of vermin is found.

Seasonal Maintenance Activity

Landscape:

Mowing (March through mid-October): 60" rotary mower used weekly or every other week, depending on seasonality. Mower height to be 2 ½ inches.

Trimming/pruning: As needed during March through October.

Facilities:

MSD pumpout - activate after high water in Spring. De-commission prior to hard freeze (typically pre November 15).

Administrative Needs:

- Envelope ordering - check supplies and reorder as needed.
- Toilet contract for porta-potties
- Signage needs for regulation compliance and user education.
- Respond to Multnomah County River Patrol needs.
- Facility inspection yearly, documenting needs.

Special circumstances

- High water - Monitor river levels and assess safety issues for public using facility during high water events. Pull signs as docks rise on pilings. Pull debris away from docks as it accumulates. Notify porta-potty contractor if water is going to breach into parking lot @ 24 feet. Close ramp when public safety is of concern.

- Ice storms - monitor situation; close ramp if icy. The potential exists for the Columbia River to ice in at the basin. In the event of this happening, there could be substantial damage to the docks. This situation needs to be monitored to ensure public safety after the thaw.

- Fuel spills: Major spills require staff to activate the City's Hazardous Materials Team.

Appendix E - River Conditions

Ogden Beeman & Associates, Inc.

Consulting in the development of ports, waterways, and marine facilities

421 S.W. 6th Avenue
Portland, Oregon 97204
Tel (503) 223-8254 Fax (503) 222-0657

April 14, 1997

Benkendorf Associates Corporation
522 SW 5th, Ste. 602
Portland, OR 97204

ATTN: Al Benkendorf
SUBJECT: Broughton Beach

As requested by you, the following letter summarizes site characteristics, such as sedimentation and erosion patterns, along the Oregon shore of the Columbia River from the vicinity of the boat ramp at NE 42nd upstream to the Sea Scout Base (Broughton Beach). The basis of this letter is the review of hydrographic survey data, aerial photographs, dredging records, and Ogden Beeman & Associates, Inc. files. A detailed analysis was not performed.

Data

Our office files contain hydrographic survey data for 1972, 1977, 1988, 1990, 1992, 1993, 1994, 1995, 1996, and 1997 from the Portland District, Corps of Engineers. The 1996 survey was conducted in January, prior to the high water events that occurred in February. In addition, our files contain copies of aerial photographs from the Portland District, Corps of Engineers. The shorelines on the photographs were visually compared, accounting for river stage at the time of the photo, to provide information concerning natural or man-made activities.

We also have dredging information collected from the Port of Portland, the Portland District Corps of Engineers, Metro, local marinas, and various dredge contractors (Lone Star NW, Ross Island Sand and Gravel, Hickey Marine, Portable Hydraulic Dredging, etc.)

Summary

The present boat ramp is located on the south shore of the Columbia River near River Mile 109.4. Columbia River Datum (CRD) at the site is 2.07 feet above National Geodetic Vertical Datum (NGVD). Ordinary high water is approximately 18.4 feet above NGVD (16.3 feet above CRD). The 100 year flood elevation is approximately 28.8 feet above NGVD. Average river velocities for the Columbia

River in this vicinity during a 100 year flood event are approximately 3 feet per second although localized velocities may be considerably higher.

The site is exposed to east winds with approximately 3 miles of fetch. This fetch, and recreational and commercial vessel traffic, will result in wave attack on the beach. This wave attack may displace sandy sediments depending on size of waves and ambient water levels.

Pile dike structures are located downstream at River Mile 109.2 and upstream at River Miles 109.72 and 110.28. See the attached Figure 1.

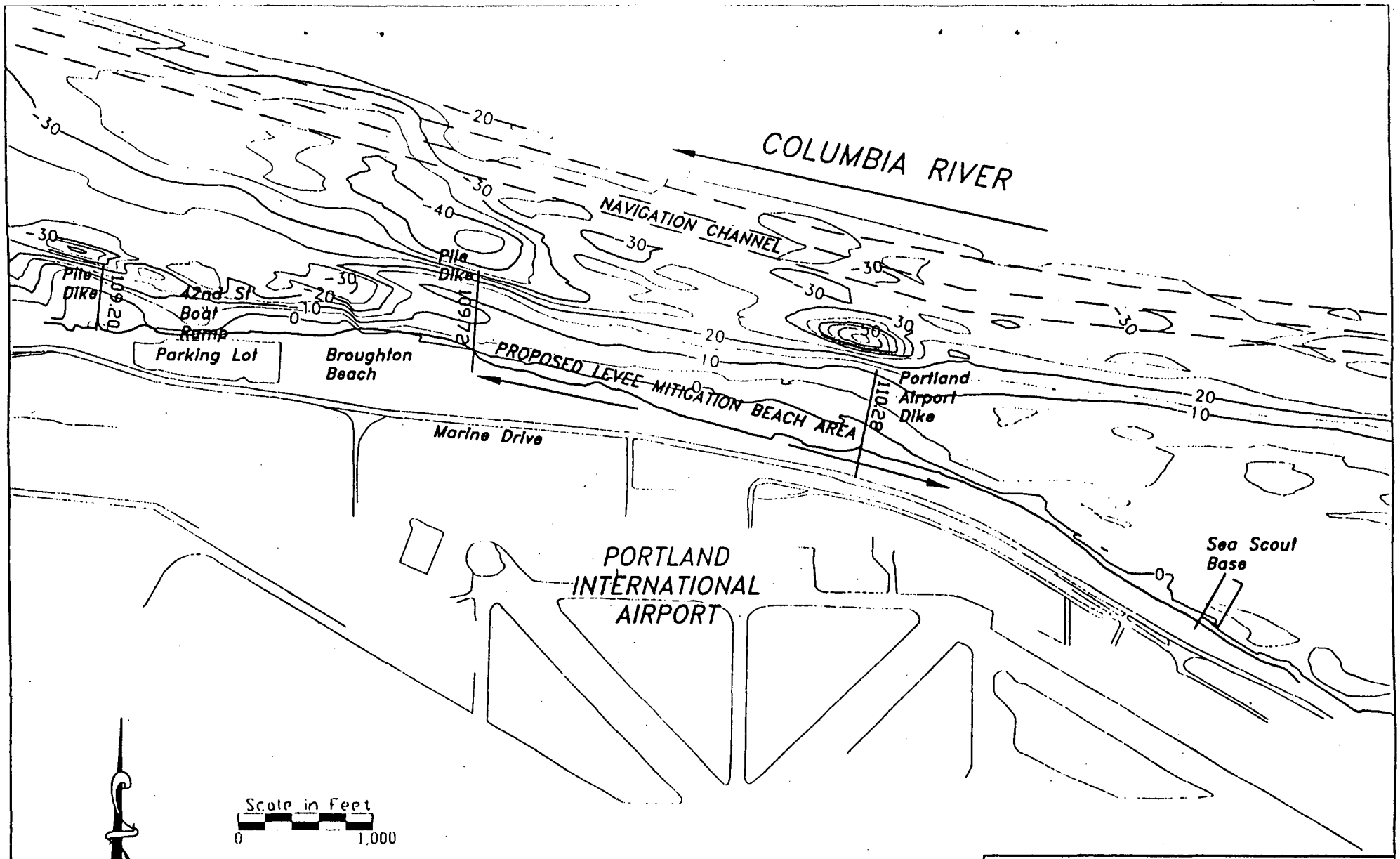
The river area north of the pile dikes and at the boat ramp have experienced considerable changes indicating a dynamic system due to natural and man-made activities. The dredging activities create "traps" that tend to fill in rather quickly compared to outlying, more equilibrium depth areas. Areas directly riverward of the pile dikes are rather dynamic as the scour holes change with various hydrologic events.

Review of the data indicates that the near shore area between pile dikes 109.72 and 110.28 (Portland Airport Dike) has remained relatively stable. This can be attributed to a number of factors. Bedload sediment transport varies as a function of the river energy gradient (slope) and depth, velocity, and sediment characteristics. The friction induced by the piles reduces the velocity within the pile dike area by approximately 50% for flows that do not overtop the dikes. In addition, the depth of flow within the pile dike area is less than main channel depths. Consequently the area has remained relatively stable over the period investigated. Forces of gravity, waves, and river currents will continue to move sediments in the area, but the magnitude of bedload sediment transport is significantly reduced by the presence of the pile dike structures.

Dredging of the boat ramp area, however, creates a non-equilibrium area that is likely to accrete sediment. Historically the boat ramp has had approximately 6,000 to 10,000 cubic yards of material dredged approximately every eight to nine years. This is a relatively low level of maintenance for structures facing the river. Given the rather uniform bankline condition of the site, it does not appear that relocating the boat ramp would provide more advantageous maintenance conditions.

Sincerely,

Karl V. Krcma, P.E.
Ogden Beeman & Associates, Inc.



Ogden Beeman & Associates, Inc.

Consulting in the development of ports, waterways, and marine facilities

Figure 1. Plan View
MDD1 Levee Mitigation

DATE	SCALE	JOB NO.
7/17/96	1"=1000'	96545

Ogden Beeman & Associates, Inc.

Consulting in the development of ports, waterways, and marine facilities

421 S.W. 6th Avenue
Portland, Oregon 97204
Tel (503) 223-8254 Fax (503) 222-0657

May 30, 1997

Benkendorf Associates Corporation
522 SW 5th, Ste. 703
Portland, OR 97204

ATTN: Al Benkendorf
SUBJECT: Broughton Beach Ramp Options and Bank Protection

As requested by you, we have reviewed your draft Master plan drawing and the Oregon State Marine Board drawings 2601-1 (Ramp and Float Option #1A), 2601-2 (Ramp and Float Option 2), 2601-3 (Proposed Site Plan), 2601-4 (Ramp and Float Option 4) and 2601-5 (Ramp and Float Option 5). We are commenting based on our observations of the existing topography and the proposed layouts and our understanding that this information will be used for master planning and not for design purposes. No technical or engineering analysis was performed.

The following comments are in regard to bank protection of the eastern parking lot extension and our general opinion of the various options in reference to waves, current velocity and sedimentation impacts.

As indicated in our April 14, 1997 letter addressing sedimentation, the site is exposed to average river velocities during a 100 year flood of approximately 3 feet per second with a flood elevation of 28.8 feet above NGVD. The fetch to the east of approximately 3 miles provides potential for wind waves. In addition, vessel wakes can affect the site.

The 250± ft. eastern extension of the boat trailer parking lot portrayed on the Marine Board drawing 2601-3 (Proposed Site Plan) extends riverward to the existing +16' contour. Assuming that the proposed lot would be filled and sloped riverward at a slope of 3 ft horizontal to 1 ft. vertical (3:1) or steeper, the bank would probably require rip rap protection as portrayed by the Marine Board. The exposure of steep sand banks to flood velocities and wave attack would require some form of bank protection, i.e. riprap, especially at high river stages. The upstream end of the riprap would require a transition around the end of the fill (keyed in) to provide a hydraulically smooth bankline and prevent unraveling of the bank.

The proposed single car parking area identified on the draft Master plan that is located eastward (upstream) of the boat trailer parking appears to be located at existing grade and extends riverward to approximately the +24' contour. This allows for a sacrificial beach area of 50 ft. or more riverward of the parking lot. Due to the existing beach slope and the buffer, bank protection may not be necessary in this area. If the slope is not protected, we would suggest monitoring the site annually by surveying a few beach cross sections. If erosion becomes a problem in the future, either protect the bank with riprap or replace the eroded sand.

In reference to the various Marine Board boat ramp, log boom, and float layouts depicted as options 1A, 2, 4, and 5, in addition to your draft Master plan, a few general comments follow.

From examination of the existing topographic and bathymetric information, the existing pile and waler structure that extends approximately 240 ft. from shore provides some protection to the ramp from current velocity and waves from the east. The topographic contours indicate that sediment has filled in upstream of the structure, with an apparent scouring effect off the riverward point of the structure (approximately -15'). The latter comment is conditioned on the lack of dredging information available to us.

Replacement of this structure with a rock groin (options 1A and 2) located upstream of the ramp that toes out at the +4' contour with a deflection boom extending riverward would allow for movement of bedload sediments alongshore at elevations below the +4' contour. The deflection boom would provide minimal wave protection.

Given the absence of more detailed information and analysis, Options 4, 5, and the draft Master plan appear to be more favorable from a protection and maintenance standpoint. As stated in our April 14, 1997 letter, the historical maintenance of the existing ramp has been relatively low for structures facing the river. Removal of the existing pile and waler structure could have detrimental effects and should be studied in more detail during project design.

Sincerely,

Karl V. Krcma, P.E.
Ogden Beeman & Associates, Inc.

Appendix F - Marine Drive - Accessibility Analysis

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION PLANNING/TRAFFIC ENGINEERING
610 S.W. ALDER, SUITE 700 • PORTLAND, OR 97205 • (503) 228-5230 • FAX (503) 273-8169

TECHNICAL MEMORANDUM #1

Columbia River Management Unit Property Development
Summary of Existing Conditions

Date: **March 6, 1997** **Project #:** 2458

To: Al Benkendorf, The Benkendorf Associates Corporation

From: Tom Schwab and James Colyar

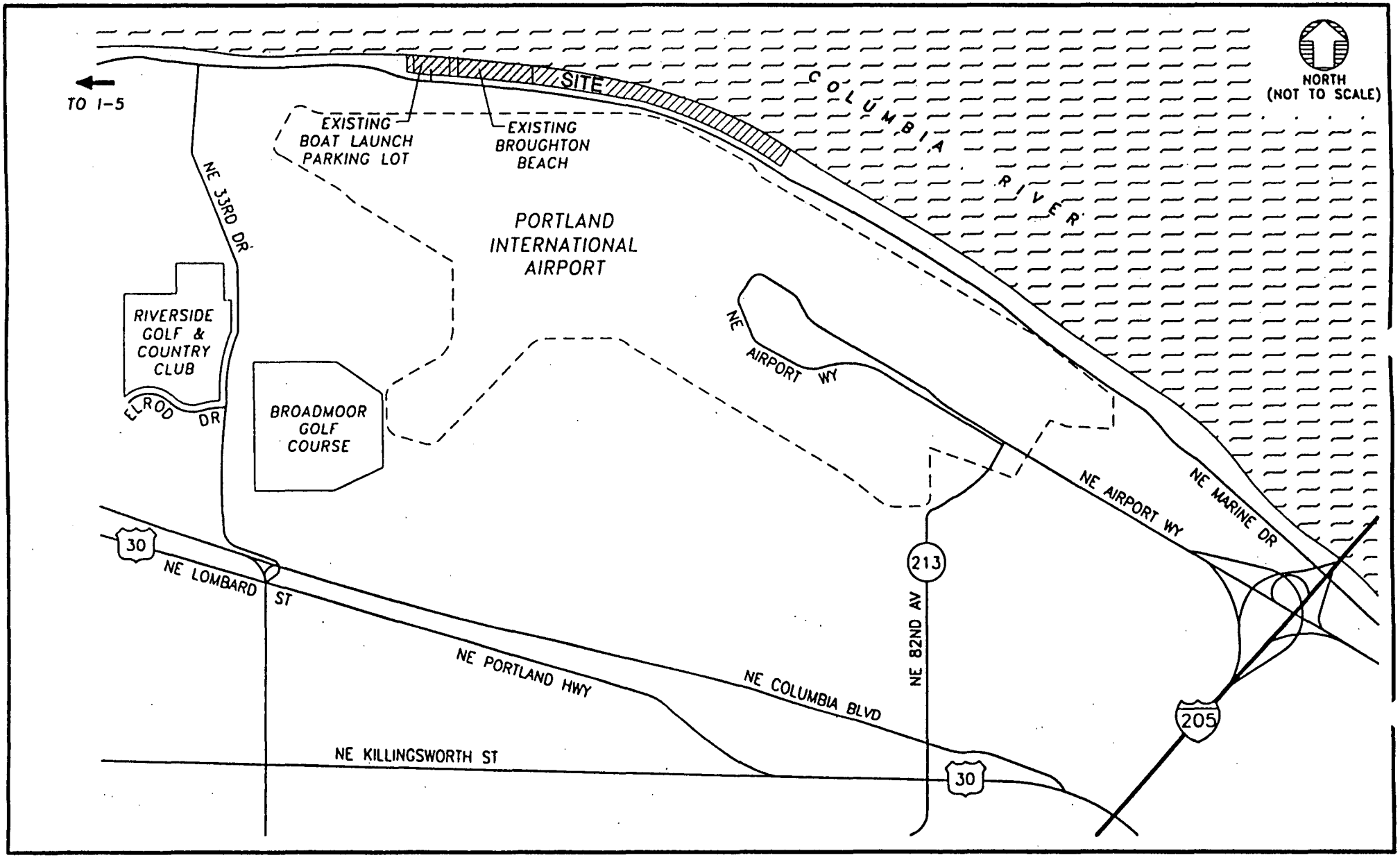
This memorandum summarizes the existing transportation system serving the Columbia River Management Unit property, located along Marine Drive directly north of the Portland International Airport. Specifically, this memorandum:

- inventories the conditions of the site and adjacent land uses, including sight distance to the existing boat launch ramp access driveway;
- evaluates the pedestrian and bicycle facilities in the site vicinity, including plans for the "40-mile loop"; and
- surveys the roadway facilities in the site vicinity, including a safety analysis along Marine Drive.

Figure 1 shows a map of the site vicinity.

Site Conditions and Adjacent Land Uses

The proposed site, shown in Figure 1, is approximately 60 acres in total size. The site is bordered to the north by the Columbia River, east by a private boat marina, south by Marine Drive, and west by a small tavern (Sextant Tavern). The purpose of developing the site is to expand the recreation opportunity for boaters and day use activities. A range of options exist that could improve day use activities, including picnic facilities/shelters, waste receptacles, or a more formalized swimming area.



SITE VICINITY MAP

COLUMBIA RIVER MANAGEMENT UNIT PROPERTY DEVELOPMENT PORTLAND, OREGON MARCH 1997	FIGURE 1	K

The site is currently occupied by a public boat launch facility, a River Patrol building, and Broughton Beach. The boat launch facility has one access driveway, shown in Figure 1. The driveway has a paved width of 33 feet, and it has a fairly steep grade as it approaches Marine Drive from the parking lot. The boat launch parking lot is approximately 25,000 square feet in paved area and has parking stalls striped for both recreational vehicles (RVs) or boat trailers, and passenger cars. The boat launch loading/unloading bay is located directly north of the access driveway with approximately 300 feet of clearance between the driveway throat and loading bay. Thus, when vehicles maneuver to load/unload their boat, vehicles entering the driveway are often in conflict with the unloading/loading process.

To allow safe and efficient access of vehicles from the boat launch driveway onto Marine Drive, a clear intersection sight distance of approximately 450 feet is needed in both directions. To the east, the access driveway has sufficient intersection sight distance to meet the 450 feet minimum. However, to the west, the intersection sight distance is approximately 440 feet, with a slight vertical curve along Marine Drive blocking the distance beyond 440 feet. This sight distance is most likely adequate for passenger cars, but for vehicles hauling boat trailers, the 440-foot intersection sight distance can be unsafe under less than adequate conditions (i.e. wet pavement, foggy sight distance).

To the immediate east of the site, there is a small, privately-owned boat marina. To the immediate west of the site, there is a small tavern called the Sextant Tavern. To the south of the site is the Portland International Airport property. A small dirt parking lot exists to the south of the site which currently serves as an overflow parking lot when the boat launch parking lot is full.

Pedestrian and Bicycle Facilities and Activity

With the Columbia River directly adjacent to the site and no immediate commercial developments nearby, many people consider the area a natural, scenic place to ride bicycles, or take a jog or walk. Thus, the area attracts many pedestrians and bicyclists. Currently, the City of Portland maintains the Columbia River "40-mile loop", which is a bicycle/pedestrian paved off-street path between 10 to 15 feet in width. The path is situated between the Columbia River and Marine Drive. The "40-mile loop" begins east of Interstate-205 and terminates approximately 550 feet east of the boat launch access driveway. The City of Portland has made preliminary plans to extend the path to NE 33rd Drive, with construction to be finished in the summer or fall of 1997. The path will cross Marine Drive approximately 400 feet east of the existing boat launch access driveway and continue on the south side of Marine Drive to NE 33rd Avenue.

Roadway Facilities

Marine Drive is the only roadway which provides direct access to the site. Marine Drive in the site vicinity is classified as a *neighborhood collector* by the City of Portland's "Transportation Element of the Comprehensive Plan" (1996). Marine Drive serves as a "back-door" route to the Portland International Airport, serves as an accessway to the Columbia River facilities (boat launches, marinas, public parks), and serves as a quick connection between Interstate-205 (I-205) and Interstate-5 (I-5). Even though Marine Drive is not classified as a truck route in the "Transportation Element", Marine Drive serves as a major truck path between I-205 and I-5. Recent counts in the area revealed that between eight and 23 percent of the total traffic on Marine Drive are trucks, depending on the time of day and direction. Overall, Marine Drive experiences a total of 13,000 vehicles per day in the site vicinity. Marine Drive has a paved cross-section of 30 feet near the boat launch access driveway, consisting of two 12-foot travel lanes and a three-foot shoulder on both sides of the road. Table 1 describes the Marine Drive cross-section in the site vicinity.

Table 1
Marine Drive Characteristics

Name	Classification	Paved Cross-Section (ft.)	Posted Speed (mph)	On-Street Side Walks	On-Street Bicycle Lanes	On-Street Parking Allowed?
Marine Drive	Neighborhood Collector	30 feet	45	No*	No*	No

Note: * - 40-mile loop serves bicyclists and pedestrians in the area.

In the site vicinity, the nearest north-south street which accesses Marine Drive is NE 33rd Drive, located approximately 4,000 feet west of the boat launch parking lot. The NE 33rd Drive approach to Marine Drive is controlled by a stop sign. Signalization of this intersection is currently planned by the City of Portland, as the project is currently on the Capital Improvement Projects (CIP) list. However, funding for the project could prevent signalization from occurring in the near-term, or ever, due to the cost associated with widening the Columbia River dyke (estimates from the City have been upward of $1 million). Therefore, the Marine Drive/NE 33rd Drive will most likely remain unsignalized in the near-term. Signalization of the Marine Drive/NE 122nd Boulevard, located to the east of I-205, is also planned on the CIP list. However, due to the anticipated cost of this project (similar to the NE 33rd signalization project), signalization will most likely not occur in the near-term.

Safety Analysis

As part of this study, a safety analysis was performed to evaluate the accident history along Marine Drive between NE 33rd Drive and NE 122nd Boulevard. Specifically, the narrow roadway combined with high speeds (speed limit of 45 mph) and large numbers of trucks were of special concern in the site vicinity. The Oregon Department of Transportation (ODOT) provided accident reports for the year 1991 through October 1996. These records were tabulated and categorized by accident type, accident location, pavement condition (wet or dry), severity of accident (fatal, injury, etc.), time of day, and vehicle type (truck, passenger car, etc.). Table 2 summarizes the accident history for the Marine Drive segment between NE 33rd Drive and NE 122nd Boulevard from 1991 through 1996.

Table 2
Marine Drive Accident History [1]

Year	Total Accidents	Type of Accident			Result of Accident		
		Rear-End	Turning-Movement	Other	Fatality	Injury	Property Damage Only
1991	20	3	7	10	2	10	8
1992	17	8	5	4	0	6	11
1993	12	4	5	3	0	8	4
1994	8	1	3	4	2	5	1
1995	11	2	4	5	0	7	4
1996 [2]	10	2	2	6	1	8	1
Yearly Average	13.0	3.3	4.3	5.4	0.8	7.4	4.8

Notes: 1. Accident data for Marine Drive between NE 33rd Drive and NE 122nd Boulevard, a stretch of approximately 5.3 miles.
2. 1996 data available through October. Thus, data was factored by 1.2 to account for entire year.

Overall, the yearly number of accidents seems to be on a downward trend, with the 1996 total accidents only half of the 1991 total accidents. Of the 1996 accidents, 40 percent occurred during wet pavement conditions, and 40 percent occurred at night. Also, only one truck was involved in an accident in 1996, and trucks were involved in 10 percent of the total accidents from 1991 through 1996 (as mentioned earlier, trucks comprise of eight to 23 percent of the total vehicles on Marine Drive). Thus, trucks are involved in accidents as frequently as

passenger cars. Of the "Other" type accidents, the most common were head-on, fixed-object, and sidesweep-overtaking types. The following findings can be summarized from the safety analysis:

- The overall number of accidents per year seems to be on a downward trend.
- Trucks do not play a major role in a specific type of accident or total number of accidents.
- Almost half of all accidents occur during wet pavement conditions or in the dark.
- Of the specific accident types, turning-movement accidents were the most frequent type, accounting for 33 percent of all accidents.

Summary of Existing Conditions

With the Columbia River nearby, the site vicinity is a scenic, natural area within the City of Portland. Bicyclists, pedestrians, and boaters all rely on Marine Drive as the only accessway through this natural area. Thus, it is important to maintain safe and efficient movement throughout the corridor. The only current access to the site provides marginal sight distance to the east, and on-site vehicle conflicts can be experienced during congested parking lot conditions with the closeness of the boat loading/unloading area. As the site is developed and begins generating more traffic, these conditions can become exacerbated. Thus, the potential location of an additional access driveway, or re-locating the current driveway, should be investigated.

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION PLANNING/TRAFFIC ENGINEERING
610 S.W. ALDER, SUITE 700 • PORTLAND, OR 97205 • (503) 228-5230 • FAX (503) 273-8169

TECHNICAL MEMORANDUM #2

Columbia River Management Unit Property Development
Development of Conceptual Access Plans

Date: April 14, 1997 **Project #:** 2458

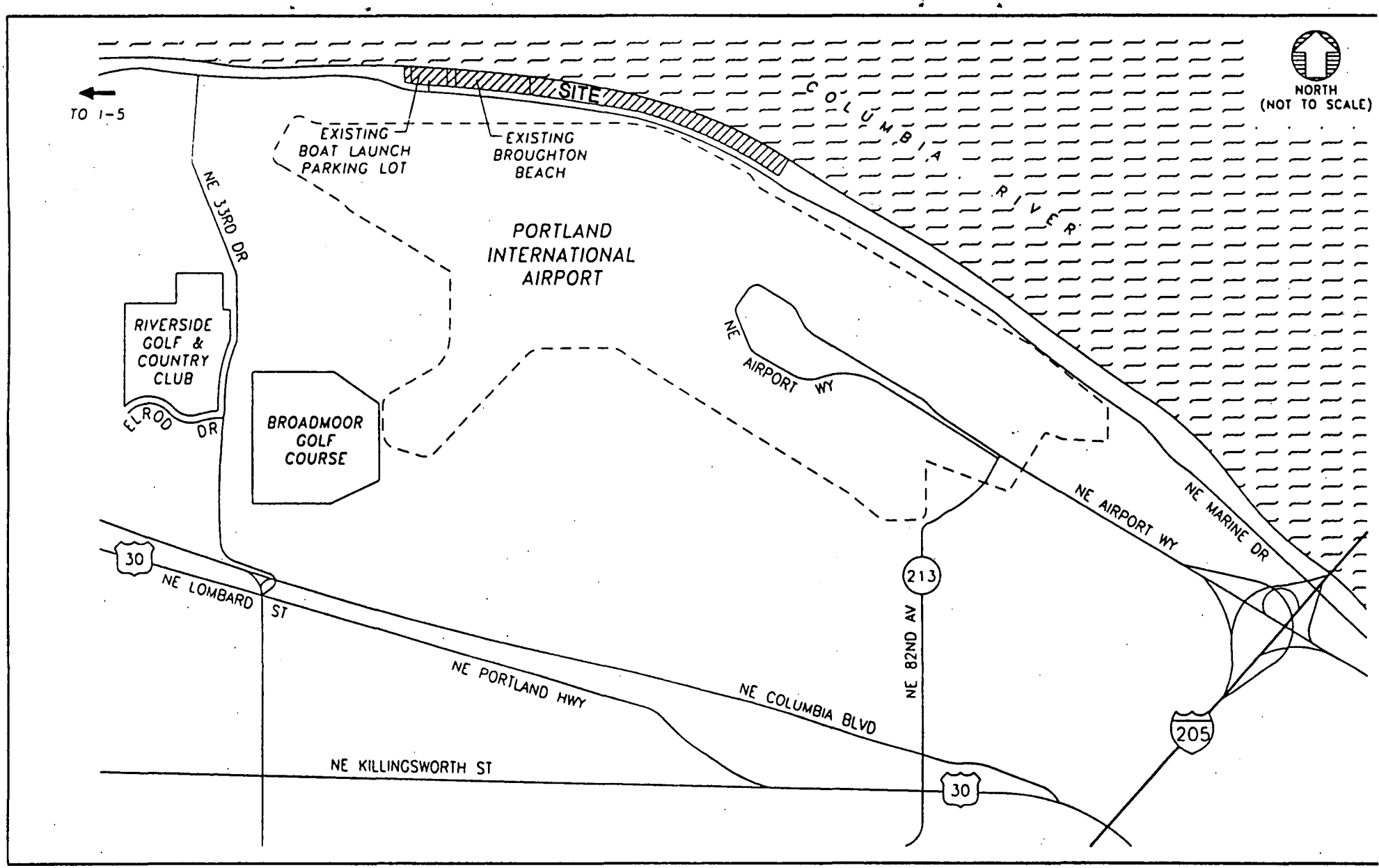
To: Al Benkendorf, The Benkendorf Associates Corporation

From: Tom Schwab and James Colyar

Pursuant to your request, Kittelson & Associates has evaluated the existing conditions and inventoried the planned projects within the site vicinity, and identified possible access plans to accommodate the planned development of the Columbia River Management Unit Property. Prior to this memorandum, Kittelson & Associates prepared Technical Memorandum #1, Summary of Existing Conditions, to address the existing roadway and land use conditions surrounding the proposed site. This memorandum deals briefly with the existing conditions, as discussed in Technical Memorandum #1, but focuses on the proposed development plans for the site and possible access plans to help create a safe and efficient transportation system for all modes of travel. Specifically, this memorandum:

- discusses the existing conditions in the site vicinity in terms of the adjacent roadway system, safety issues, adjacent land uses, and the 40-mile loop bike/pedestrian path;
- explains the planned and programmed roadway and pedestrian/bicycle path improvements within the site vicinity;
- details the proposed development plans for the Columbia River Management Unit property; and
- identifies potential access plans to allow for the safe and efficient movement of vehicles, pedestrians, and bicyclists traveling to the site and those traveling through the site vicinity.

Figure 1 shows a map of the site vicinity.



SITE VICINITY MAP

COLUMBIA RIVER MANAGEMENT UNIT PROPERTY DEVELOPMENT PORTLAND, OREGON	FIGURE 1	K
MARCH 1997		

2458F001

EXISTING CONDITIONS

Kittelson & Associates prepared a detailed memorandum (Technical Memorandum #1 - Summary of Existing Conditions, March 1997) describing the existing conditions of the site vicinity, including roadway facilities, the 40-mile loop, and a safety analysis. While this memorandum provides a brief overview of the existing conditions, please refer to Technical Memorandum #1 for a full evaluation of the existing conditions.

Roadway Facilities

Marine Drive serves as the only roadway providing access to the site. Marine Drive is classified by the City of Portland as a *neighborhood collector*, has a posted speed limit of 45 mph, and is a two-lane cross-section in the site vicinity. No sidewalks are provided along Marine Drive. A three-foot shoulder exist on both sides of the roadway.

Safety Evaluation

A safety analysis was prepared from accident reports compiled by the Oregon Department of Transportation (ODOT) Accident Data unit. As a result of the safety analysis, a number of observations were made. First, the overall number of yearly accidents seems to be on a downward trend. Second, trucks do not play a major role in a specific type of accident or total number of accidents. Third, almost half of all accidents occur during wet pavement conditions or in the dark. Lastly, of the specific accident types, turning-movement accidents were the most frequent, accounting for 33 percent of the 78 total accidents in the 70-month study period.

Site and Surrounding Land Uses

Currently, the site is occupied by a public boat launch facility, a River Patrol building, and Broughton Beach. Refer to Figure 1 for the locations of these facilities within the site. The boat launch facility has one access driveway, located directly south of the boat loading/unloading bay. The total site study area encompasses approximately 60 acres. The site area east of Broughton Beach is currently vacant and used strictly for recreational activities (swimming, picnicking, etc.). This section is fairly narrow and the dike parallel to Marine Drive creates a fairly steep grade through some stretches of the site.

The site is bordered to the north by the Columbia River, east by a private boat marina, south by the Portland International Airport, and west by a small tavern (Sextant Tavern). Also, a small unimproved parking lot is located to the south of the site which currently serves as an overflow parking lot when the boat launch parking lot is full.

Pedestrian/Bicycle Path

The "40-mile loop" is a bicycle/pedestrian paved off-street path between 10 to 15 feet in width. The path, situated between the Columbia River and Marine Drive, begins east of Interstate-205 and terminates approximately 360 feet east of the boat launch access driveway. The City of Portland has plans to extend the path westward to NE 33rd Avenue, which is explained in the *Planned Roadway Improvements* section of this memorandum.

PLANNED ROADWAY IMPROVEMENTS

A number of projects by the City of Portland are in the planning or development process which could impact the vehicle and bicycle/pedestrian access to the site. These projects are briefly explained below.

Columbia Corridor Study

The City of Portland is concerned with the volume, speed, and type of traffic along Marine Drive. To alleviate these problems, the City is conducting the Columbia Corridor Study to evaluate possible mitigations to divert through traffic to other routes and/or slow down the traffic along Marine Drive to preserve the roadway as a natural, scenic route for neighborhood and tourist/recreational traffic. According to discussions with the City of Portland, the study is near completion and a number of potential mitigations will be presented. Any mitigations which are implemented will most likely act favorably in providing safe and efficient access to the site.

Pedestrian/Bicycle Path Improvements

As mentioned previously, the City of Portland has approved plans to extend the 40-mile pedestrian/bicycle path westward to NE 33rd Drive (the path currently terminates approximately 360 feet east of the Boat Launch access driveway on the north side of Marine Drive). The path will cross Marine Drive approximately 350 feet east of the boat launch access driveway and then continue along the south side of Marine Drive to NE 33rd Drive. A crosswalk and overhead pedestrian crossing signs will be placed to warn motorists along Marine Drive of the crossing. Either the pedestrian crossing signs will continuously flash on and off, or a pedestrian button may be installed at the crosswalk approaches to actuate the flashing pedestrian crossing sign (similar to the pedestrian buttons at signalized intersections to actuate the "Walk" sign for crosswalks). Construction for this project is scheduled to begin this summer, and the path should be open to the public within the next year.

Marine Drive Traffic Signals

Traffic signals are in the planning stages at the Marine Drive/NE 33rd Drive and Marine Drive/NE 122nd Boulevard intersections. Both intersections are currently controlled by stop signs on the NE 33rd Drive and NE 122nd Boulevard approaches. Traffic signals at both locations are currently on the City of Portland's Capital Improvement Projects (CIP) list. However, funding for the projects could prevent signalization in the near-term, or ever, due to the cost associated with widening the Columbia River dike (estimates for each signal have been upward of $1 million). Discussions with the City of Portland revealed that there is some question as to whether the NE 122nd Boulevard signal is fully funded already, and the NE 33rd Drive signal is not funded as of April 1997. Overall, the NE 122nd Boulevard traffic signal will most likely occur before the NE 33rd Drive signal.

PROPOSED DEVELOPMENT PLAN

Figure 1 shows the location of the site relative to Marine Drive and the other facilities in the vicinity. The entire site is approximately 60 acres in area and is occupied by a boat launch facility, River Patrol building, and Broughton Beach. The purpose of developing the site more fully is to expand the recreation opportunity for boaters and day-use activities (picnicking, swimming, jogging, etc). The existing boat ramp facility operates at capacity during peak summer weekends. Plans for developing the entire site include modifying the internal parking lot circulation and providing more facilities for day-use visitors. A range of options exist which could improve and expand the day-use activities, including picnic facilities/shelters, waste receptacles, bathroom facilities, and a more formalized swimming area. Also, an additional 150 parking spaces for passenger cars are planned on the east side of the existing boat launch parking lot.

CONCEPTUAL ACCESS PLANS

The existing access to Marine Drive is in a direct line with the boat launch facility. Conflicts occur between entering and exiting vehicles and the boat launch activity because of the limited lot depth between Marine Drive and the Columbia River. The approach to Marine Drive is on an approximate 10 percent grade due to the difference in elevation between the existing parking lot and Marine Drive. Vehicles towing boats from the site require additional sight distance than that required of a passenger car in order to access Marine Drive.

Several alternatives were analyzed to improve the boat ramp access and to minimize the conflict of vehicles entering the site and the boat launch activity. Two alternatives are presented in this memorandum and are labeled as Alternative 1 and Alternative 2.

Alternative 1 - Relocate Boat Launch Access to the West

Alternative 1 would relocate the existing boat launch driveway by a distance of approximately 650 feet west of the existing access, to the vicinity of the former Portage Marina access driveway onto Marine Drive. The grade differential between Marine Drive and the parking area would be less severe than the existing location. The access approach to Marine Drive should be developed at a one percent grade or less to improve visibility and to improve driver performance when attempting to enter Marine Drive from the boat ramp facility. Relocating the access to the west will eliminate the conflict between the entering/exiting vehicles and the boat launch area.

The proposed access onto Marine Drive should be designed with left turn channelization for eastbound traffic on Marine Drive. A left turn lane storage length of 160 feet should be developed to provide storage for up to two vehicles with trailers and to provide a short speed change deceleration area. The channelization should be designed with a 45:1 taper leading into the storage area. A 10 degree reverse curve would be designed to transition vehicles into the left turn storage area. A 20:1 taper for westbound right turning traffic should be considered to allow a westbound vehicle to slow to a comfortable speed when entering the site. The right turn taper should be considered as optional if right-of-way is possible. This will minimize the conflict with through vehicles on Marine Drive. The approach access should be designed with 16 foot lanes at the Marine Drive approach to minimize the friction between entering and exiting vehicles.

A conceptual drawing of Alternative 1 is shown on Figure 2. This alternative would require the boat launch traffic and the day-use traffic to access Marine Drive at the same location.

Alternative 2 - Relocate Existing Boat Launch Access to the West and Develop a Second Access

Alternative 2 would construct a new main access to the boat ramp facility and the proposed day-use area. This access would be located approximately 350 feet east of the existing boat ramp access. All vehicles entering the boat launch facility and the day-use area would be directed into the site from this new access, which would operate as a two-way roadway internal to the site. The existing 42nd Avenue boat ramp access to Marine Drive would be closed. An egress roadway from the site would be constructed approximately 600 feet west of the existing boat ramp access, located in the vicinity of the existing access serving the former Portage Marina site. This new access would operate as an exit-only driveway.

Traffic would enter the site from the new access east of the existing access. Traffic would then

circulate into either the day-use parking area or into the boat launch area. Visitors to the day-use area would exit the parking area to Marine Drive through this intersection. Parking and circulation within the boat parking area would be situated to facilitate traffic flow into and through the boat ramp facility. Vehicles with boat trailers would exit the parking and loading/unloading area to enter Marine Drive from a one-way access at the new access west of the existing driveway. Left turn storage for eastbound traffic would be developed on Marine Drive at the main access location.

The layout of the left turn channelization is shown on Figure 3. The left turn lane should be developed with a 14-foot median lane and 12-foot through lanes in each direction. The left turn storage should be designed with a 160-foot storage area and 45:1 tapers. A right turn lane (westbound to northbound) is optional and should be included if right-of-way permits.

The proposed channelization and design for Alternative 2 would incorporate the 40-mile loop Marine Drive crossing into the east leg of the intersection as shown on Figure 3. Incorporating the 40-mile loop path into the intersection design will allow a more common pedestrian/bicycle crossing on Marine Drive, and will improve driver awareness of the crossing on Marine Drive.

SIGHT DISTANCE

Sight distance measurements were obtained for the existing access location and for the proposed access locations. Assuming the existing roadway profile does not change, the minimum sight distance of 450 feet (required for a 45 mph design speed) can be achieved at both proposed access locations.

The critical sight distance would be east of the proposed new access to the day-use area (Alternative 2). The existing dike to the east of this access could form an obstruction and limit sight distance if the north edge of pavement were moved to the north. If the existing edge of pavement is held fixed, the minimum sight distance of 450 feet will be met.

RECOMMENDATION

Based upon the results of the analysis described in this report, it is recommended that Alternative 2 be incorporated into the re-design of the boat launch access and the proposed day-use area facility. Alternative 2 will provide good access and circulation into and through the site and minimize the impact of a single access location. The design for Alternative 2 should include left turn channelization at the east driveway using standard tapers, as shown on Figure 3.

Appendix G - Market Assessment

DATE: April 1, 1997

TO: Mr. Al Benkendorf
BENKENDORF ASSOCIATES

FROM: Jerry Johnson
HOBSON JOHNSON & ASSOCIATES

SUBJECT: Preliminary Evaluation of Commercial Potential/Broughton Beach Area

MEMORANDUM

This memorandum summarizes our preliminary analysis of commercial development opportunities at the Broughton Beach Property.

Demographics

Situated directly north of the Portland International Airport, the subject site is relatively isolated from major residential concentrations. The most proximate residential area is the Bridgeton neighborhood, west of the subject site via Marine Drive. The site also has less convenient access to the Concordia and Cully neighborhoods via Marine Drive and NE 33rd Drive. All three of these neighborhoods have average effective buying incomes well below the regional average. The following a summary of the population numbers for the relevant census tracts:

Census Tract	Neighborhood	1994 Population	1994 Households	1994 Employment
30	Concordia	4,493	1,872	311
31	Concordia	4,777	1,752	183
32	Concordia	4,199	1,509	233
36.02	Concordia	6,224	2,146	1,002
36.03	Concordia	1,634	647	293
72.02	Bridgeton	1,428	647	14,112
73	Airport	971	316	25,581
74	Cully	2,807	1,109	595
75	Cully	4,282	1,643	1,044
Total		30,815	11,641	43,354

As shown in the preceding table, the Bridgeton and Airport neighborhoods have a negligible household base, although employment in the area is substantial. None of the neighborhoods with convenient access to the subject site have experienced substantial growth over the past several decades. While new residential construction activity is currently underway in the Bridgeton

neighborhood, a relative lack of available sites will limit residential growth potential in the future.

With a limited residential base from which to draw, retail opportunities will be largely limited to what is supported by traffic generated by facilities at the subject site. The subject site's boat ramp and beach facilities have the ability to attract a substantial amount of daytime use, but uses are likely to be limited seasonally. This places severe restrictions on the type and quantity of retail that can be attracted to the site. The exception to this rule would be a facility with its own regional draw, such as Salty's restaurant, west of the site.

Potential Market Opportunities

The subject site's limited retail draw will limit the type and quantity of retail that can be attracted to the site. The degree to which additional retail activity can be generated on the property will largely be a function of the level of activity that can be generated. The following is a preliminary list of the strengths and weaknesses of the site from a retail perspective:

Strengths	Weaknesses
- *Boating-related uses*	- *Weak local market*
- *Potential river view*	- *Highly seasonal traffic*
- *Potential for good seasonal traffic*	- *Difficult access*
- *View of airport traffic*	
- *Local employment base*	

Potential retailers for the site would likely be focused on serving the needs of the boating community as well as the daytime visitors to the beach area. These would include marine supply, small food vendors, potential recreational vendors (kites, banana bikes, etc.) and potentially an affordable family restaurant. The local demographic base is insufficient to support neighborhood-scale retail development of the site. Retail opportunities would have to be evaluated in light of potential improvements to the area.

We feel that the site does offer some limited potential for office space development. While the site does not fit the typical profile for an office building, it does offer a potential for river views and fair regional access. The most important site location criteria for office space development typically include: location and access, size and shape of parcel, topography, drainage, surrounding land uses, utilities and zoning. The primary weaknesses of the site are a lack of access, exposure and proximity to other major office space concentrations.

A limited amount of speculative office space is probably feasible at the site, with an owner-occupied building also potentially viable. The site is unproven as an office location, and a traditional market depth analysis would be of negligible worth. Further research should be done on rent levels and the current profile of tenants in the area.

DATE: May 1, 1997

TO: Mr. Al Benkendorf
BENKENDORF ASSOCIATES

FROM: Jerry Johnson
HOBSON JOHNSON & ASSOCIATES

SUBJECT: Evaluation of Achievable Office Lease Rates

MEMORANDUM

This memorandum summarizes our preliminary analysis of achievable office lease rates at the Broughton Beach Property. We have prepared a survey of selected office buildings and industrial buildings with a significant level of office build-out, which is included with this memorandum. These projects are predominantly located in the Northeast Portland area, and we expect that tenants in these projects may consider locating at the subject property.

The survey included 12 projects, offering a total of roughly 620,000 square feet of gross leasable area. Annual quoted full-service lease rates at these projects range from $12.50 to $18.50 per square foot. The weighted average lease rate in the survey is $14.52 per square foot, or $15.24 per square foot if business park space is excluded.

As stated in our previous memorandum, the site does not fit the typical profile for an office building but it does offer a potential for river views and fair regional access. The primary weaknesses of the site are a lack of access, exposure and proximity to other major office space concentrations. We expect that the potential for river views will largely offset the sites weaknesses in terms of achievable rents.

In light of the subject project's competitive position vis-à-vis the projects surveyed, we would expect achievable lease rates of $15.00 per square foot on the second story space, and $13.50 per square foot on ground level space. Tenant improvements required are estimated to be between $20 and $25 per square foot.

SUMMARY OF OFFICE SPACE
NORTH/NORTHEAST & VANCOUVER
PORTLAND METROPOLITAN AREA
(March, 1997)

BUILDING NAME/ LOCATION	YEAR BUILT	NET RENTABLE SF	AVAILABLE SF	VACANCY RATE	QUOTED ANNUAL LEASE RATE PER SF
Class B Office Buildings					
Airport Business Center-Bldg. 15 6600 NE 78th Court	1982	14,000	0	0.0%	$13.00-$14.75 GRO
Airport Business Center-Bldg. 16 A-C 6601-6645 NE 78th Court	1985	37,042	8,043	21.7%	$14.00 GRO
Airport Business Center-Bldg. 20 A & C 6130 & 6135 NE 78th Court	1986	29,592	6,791	22.9%	$13.00-$14.75 GRO
Airport Business Center-ITT Bldg. 6035 NE 78th Court	1986	38,572	0	0.0%	$15.00 GRO
Class A Buildings & Business Parks					
One Airport Center NE Airport Way	1996	73,500	17,786	24.2%	$18.50 GRO
Sivers Airport Center I, II 122nd & Ainsworth Circle	1989/ 1995	80,002	3,456	70%	$7.80 NNN $14.30 GRO 1/
Stonemill Business Park Vancouver	N/A	122,000	5,436	4.5%	$15.00 GRO
Hayden Island Business Park	1980	159,150	0	0.0%	$6.60 NNN $13.10 GRO 1/
Class C Office Buildings					
701 Main 701 Main Street Vancouver	1900	10,900	8,486	77.9%	$13.50 GRO
Columbia Executive Building 112 W 11th Street Vancouver	1934	10,000	0	0.0%	$12.50 GRO
Heritage Building 601 Main Street Vancouver	1912	25,000	0	0.0%	$12.50 GRO
Vancouver Commerce 101 E. Eighth Vancouver	1980	20,000	0	0.0%	$14.50 GRO
TOTAL (including business parks)		619,758	49,998	8.1%	$14.52
TOTAL (excluding business parks)		258,606	41,106	15.9%	$15.24

Appendix H - Commercial Users - Questionnaire Summary

M. JAMES GLEASON BOAT RAMP MASTER PLAN
COMMERCIAL USERS -- QUESTIONNAIRE SUMMARY

The following is a summary of answers given by attendees on the Questionnaire distributed at the Commercial Users Meeting for the M. James Gleason Boat Ramp Master Plan held June 2, 1997 at Metro Regional Center.

1. *Description of Use:*

- Water drops / lumber
- Boat transporter / highway
- Tow barges w/dumpsters
- Load / unloading barges
- Barges for dumpsters
- Small crane operations, inc.
  - boat salvage
  - transfer of equipmnt for houseboat rprs
- Load drywall
- Removal / Construction debris
- Tow Vessels
- Tow barges for construction mat'ls
- Trailer of foam
- 50' Beam launched
- Pickup and delivery of boats, small to large
- Repairs to docks and boathouses
- Commercial recreation

2. *Frequency of Use*

Times per week / # Responses		Times per month/ # Responses		Other/ # Responses	
2-3 x wk	2	1 x mo	2	Anytime	1
4-5 x wk	1	2 x mo	1	3-5 x wk / summer	1
		3-4 x mo	2	every 2-3 wks / winter	1

3. *Time of Day / Week*

	# Responses
Early weekday a.m.	4
Late a.m./early afternoon	1
All Day	1
Avoid peak hours	1
Avoid mobs of jet skiers	1

4. *Typical Size of Boat, Trailer or Other*

Boats/ # Responses		Trucks / up to 60' Trailers/ # Responses	
14' to 40'	6	40' trailer	1
		50' trailer	2
Dumpsters/ # Responses		60' trailer	3
20 to 30 cu. yd.	1		

Utility trailer/	# Responses
20' trailer	1
30' trailer	1

Barges/	# Responses
8' x 22 flat bottom	1
10' x 28 barge	1

4. *Other Launching Facilities Used / # Responses*

- 42nd Street 2
- Browns Landing 1
- Big Eddy 2
- Big Oak Marine 1
- Chinook 3
- Gladstone 1
- Harbor 1 Crane Yard 1
- Larsons 1
- Olympia Ramp 2
- Portco 1
- Rainier 1
- Sauvie Island Ramp 1
- Seattle Sundial Beach 1
- Vancouver 1
- Willamette Park 2

5.

Use Annual Pass?	*Pay Per Launch?*
5	7

6. *Comments*

- Limited repair good, as long as commercial use considered
- Need another facility sited
- Need another facility built
- Layout design does not accommodate trucks
- Ramp does need improvements
  - ◊ better docks
  - ◊ stop east side sandfill
  - ◊ provide restrooms
  - ◊ redesign ingress/egress from Marine Drive
- Let's make it work
- Please consider all users' needs
- Annual pass would work well
- All my customers recreational boaters
- Put on/off ramps at 205/Govt. Island
- Build Phyco jet ski paradise elsewhere
- In 10 years, no conflicts regarding time and availability
- Like initial layout

Companies Represented

#	*Type*
1	General Contractor
2	Boat Haulers / Launchers
1	Towing & Salvage
2	Diving / Marine Service
2	Marine Construction
2	Marine Trucking

Appendix I - Preliminary Structural Evaluation - River Patrol Offices

CONLEE
ENGINEERS, INC.
1308 S.W. Bertha Blvd.
Portland, Oregon 97219
Bus. (503) 244-0579
FAX (503) 244-7023

May 23, 1997

Mr. Dick Ragland
Richard E. Ragland , AIA
Architects & Planners
510 NW Third Ave.
Portland, OR 97209

RE: River Patrol Offices
Preliminary Structural Evaluation

Dear Mr.Ragland:

As per your request, we have made a preliminary structural evaluation of the existing River Patrol Offices located adjacent to the County Boat Ramp in Portland, OR. The purpose of this evaluation is to identify structural code deficiencies, summarize structural repairs needed and estimate costs for structural repairs. Following is a summary of our findings:

BUILDING DATA: The existing single story building consists of an office area on the east end and two service bays on the west end.. What drawings that are available were dated 5/16/69 and construction probably followed shortly thereafter. Roof framing at offices and east service bay is plywood sheathing over trussed rafters spanning N-S. Roof framing over west service bay is 2" wood decking over 8" I-beams spanning E-W. Exterior walls are CMU with reinforcing shown only at openings. The ground floor is a concrete slab-on-grade at service bays and an elevated wood framed floor at office. Foundation walls and footings are concrete.

PRELIMINARY STRUCTURAL EVALUATION: Our preliminary lateral load analysis was based upon the current code (1994 UBC) with Zone 3 seismic forces, 90 MPH-Exposure D wind loads and an Importance Factor (I) for Essential facilities. Based upon assumed material strengths and wall reinforcing only where shown on drawings, we found the following elements to be overstressed:

1. Roof diaphragm of west service bay.
2. Anchorage of roof system to walls.
3. Exterior CMU walls for out-of-plane loading
4. Interior CMU walls for out-of-plane loading.

CONLEE
ENGINEERS, INC.
1308 S.W. Bertha Blvd.
Portland, Oregon 97219
Bus. (503) 244-0579
FAX (503) 244-7023

ANTICIPATED STRUCTURAL REPAIRS: Based upon our visual observations and preliminary lateral load analysis, we conclude the following structural repairs will be required to meet present code.

1. Improving roof diaphragm at west service bay by adding plywood sheathing as part of overall roof repairs.
2. Improving anchorage of roof system to CMU walls by adding roof/wall anchors.
3. Strengthening exterior CMU walls by adding steel strongbacks.
4. Strengthening interior CMU walls by adding steel strongbacks.

PRELIMINARY STRUCTURAL REPAIR COST ESTIMATE: We have estimated costs for the anticipated upgrades based upon our preliminary structural evaluation as listed below. Estimated costs are direct costs and do not include General Contractor OH & P, testing services, professional fees or contingencies.

Roof Diaphragm	1600 SF	@	$3.00/SF	=	$4,800
Roof/Wall ties	48	@	$75/EA	=	$3,600
Exterior Wall Strongbacks	1,860 SF	@	$7.50/SF	=	$14,000
Interior Wall Strongbacks	1,010 SF	@	$7.50/LF	=	$7,600
Subtotal					$30,000

These results from our preliminary structural evaluation are submitted for your use preparing the Master Plan for this facility.

Sincerely,

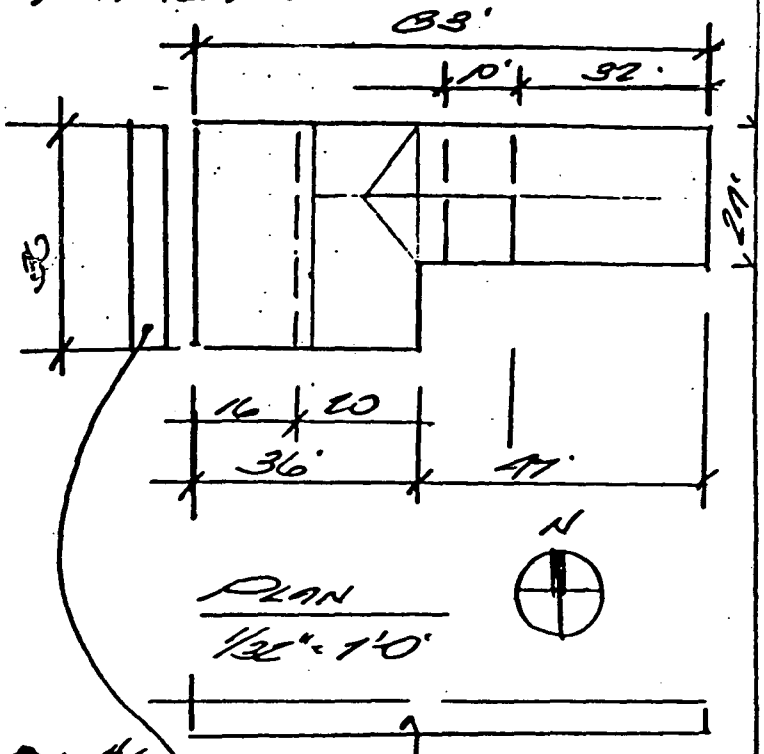
Charles J. Conlee, PE
Conlee Engineers, Inc.

CC: File - RRA43.INV

CONLEE ENGINEERS INC.	Client	Sheet 1
	Project	Date 5-23-17
	Subject	By CL

WIND — 90 MPH, Exp. D, $I_w = 1.15$

$q_o = 1.39(20.0)1.3(1.15) = 43.2$ psf



PLAN
1/32" = 1'0"

E-W.

$W = \left(\frac{12.67 + 55}{2}\right) 43.2 = 511$ #/'

$H_W = 511(36) = 18.4^k \equiv H_E = 19.0^k$

N-S.

$W_1 = \left(\frac{12.67 + 45}{2}\right) 43.2 = 460$ #/'

$W_2 = \frac{16}{2}(43.2) = 346$ #

$H_W = 460(83) = 38.05^k > H_E$

CONLEE ENGINEERS INC.	Client	Sheet 2
	Project	Date 5.23.97
	Subject	By CJL

SEISMIC Box 3, $I = 1.25$, $R_w = 6$

DEAD LOAD

ROOF @ [36(36) + 24(47)] / 15 = 360

N. WALL @ 83(6.33) 50 (0.75) = 19.7
S WALL @ 0.67 = 17.6 } 35.7

E. WALL @ 24(6.33) 60 (0.75) = 5.7
W. WALL @ 36(6.33) 50 = 11.4
INT. @ 36(6.33) 60 (0.75) = 8.6
+ 2(24) 6.33 (∞) 0.75 = 11.4 } 37.0

W_D = 110.7k

SEISMIC

$$V_E = \frac{0.3(1.25)\,2.75}{6} W = 0.17W = 19.0^k$$

CONLEE ENGINEERS INC.

Client ______ Project ______ Subject ______

Sheet 3 Date 5-23-97 By C/L

DIAPHR.

E-W

$V = \frac{19{,}000}{2} = 9500^{\#}$

$v = \frac{9500}{36} = 263^{\#/l} > v_{allow} = 100$ N.G

CONCLUDE: ADD 1/2" PLY SHTG.

CK EXT. WALLS ~ 8" CMU, NO VERT. REINF.

LOADING ⊥ $A = 48$ $S = 90\ in^3$

$q_w = 1.39(20.8)\,1.2\,(1.15) = 39.9$ psf

$M_w = \frac{39.9(12)^2}{8} = 718^{'\#/l}$

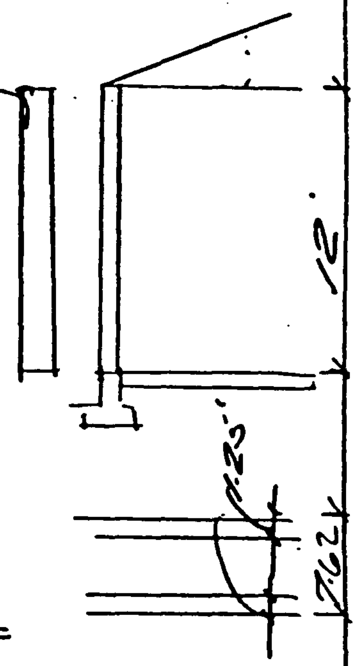
$P_D = 4'(15) + 6(50) = 360^{\#/l}$

$P/A = \frac{360}{48} = 7.5$ psi

$M/S = \frac{718(12)}{90} = 96$

$f = 7.5 \pm 96 = +104\ /\ -88$ psi N.G

CONCLUDE: STRONGBACK ALL EXT WALLS



LOADING ∥ – E WALL, $L_{net} = 6.7'$

$V_w = 468^{\#/l}(32/2) = 7400^{\#}$

$v = \frac{7400}{6.67'(4")12}$ 23 psi < $F_v = 34$ O.K

CONCLUDE: CMU WALLS O.K FOR IN PLANE LOAD

CK INT. WALLS – 8" CMU

LOADING ⊥

$q_E = 0.3(0.75)\,50\,(1.5) = 16.9$ psf

CONLEE ENGINEERS INC.

Client
Project
Subject

Sheet 01
Date 5.23.97
By CJC

REPAIR QUANT.

ROOF DIAPH. @ 40(40) = 1600 SF

ROOF/WALL TIES

L_{Ext} = 2(83+36) = 238'

= 238 / 6 = 40

EXT. WALL BRCG

A = 230'(17') = 2860 SF

INT. WALL BRCG

L = 36 + 2(20) = 84'

A = 12(84) = 1008 SF

Multnomah County
Facilities and Property Management

EMERSON Jim R

From: SCHROTZBERGER Jon E
Sent: Wednesday, March 19, 1997 4:59 PM
To: EMERSON Jim R
Cc: CALKINS Craig M; NILSEN Robert H
Subject: River Patrol Columbia

The "down & dirty" on River Patrol Columbia is:

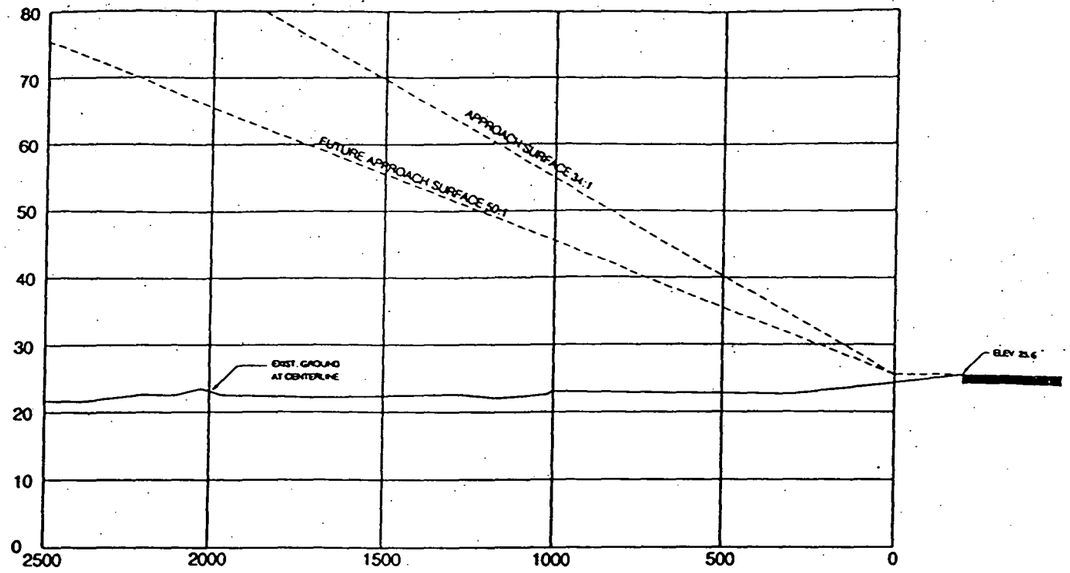
- The outstanding (read that deferred) maintenance needs are $20-25,000. for a new HVAC system.
- A cost of $3.04 per sq/ft for energy (gas & electric) is high compared to new construction yielding an estimated $1.10 per sq/ft.
- The Great Flood of '96 caused us to do about $15,000 in emergency response efforts and replacement of the damaged generator.
- The current facility has had the public restrooms closed due to high vandalism / maintenance costs. We are currently providing portable facilities under contract to the SO.

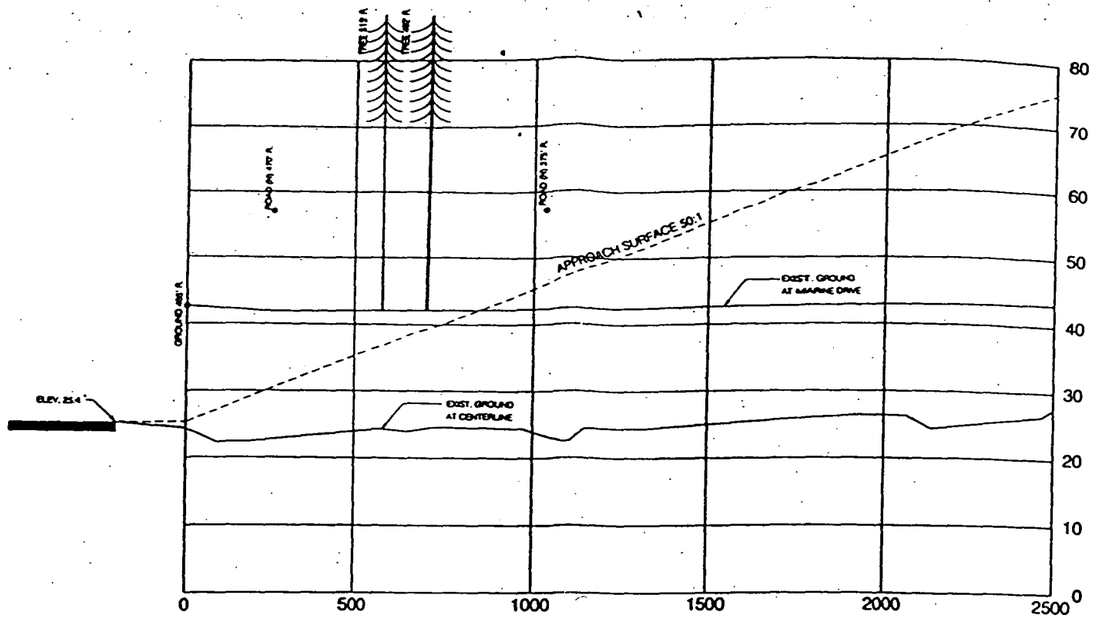
The rest of the complex does not get mentioned, so I will assume that the floating portions will not be a factor at this time.

If I can be of further assistance, let me know.

Appendix J - Runway Protection Zone Plan Maps

Appendix J - Runway Protection Zone Plan Maps

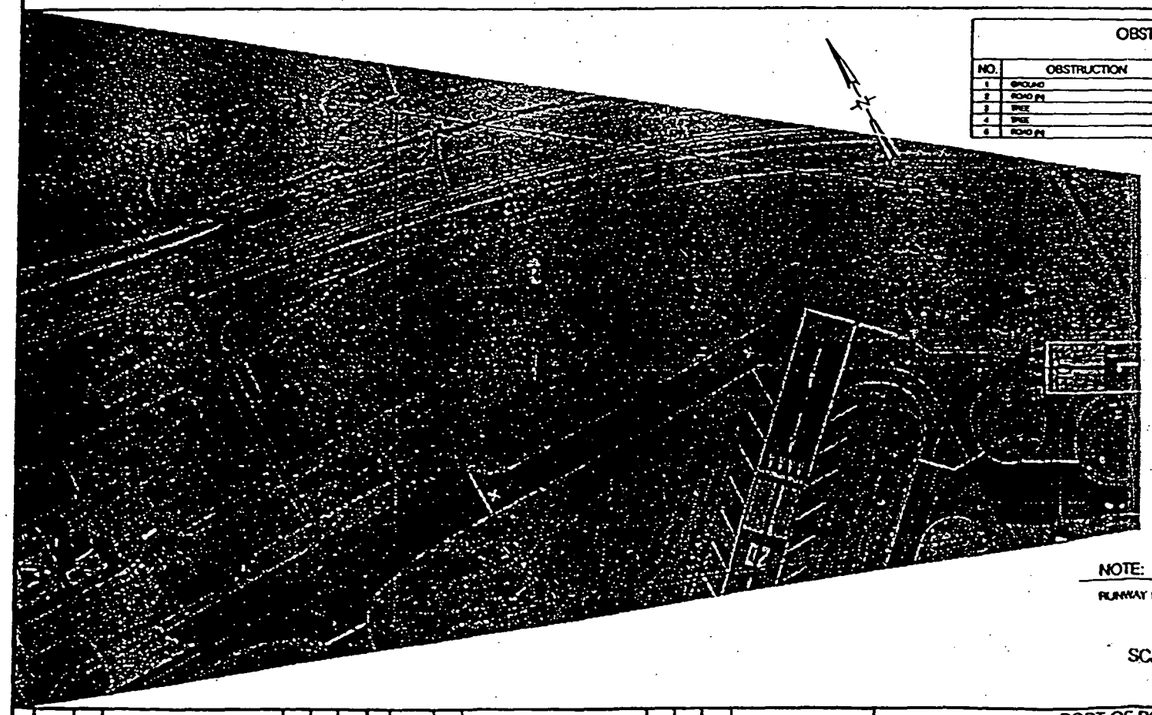


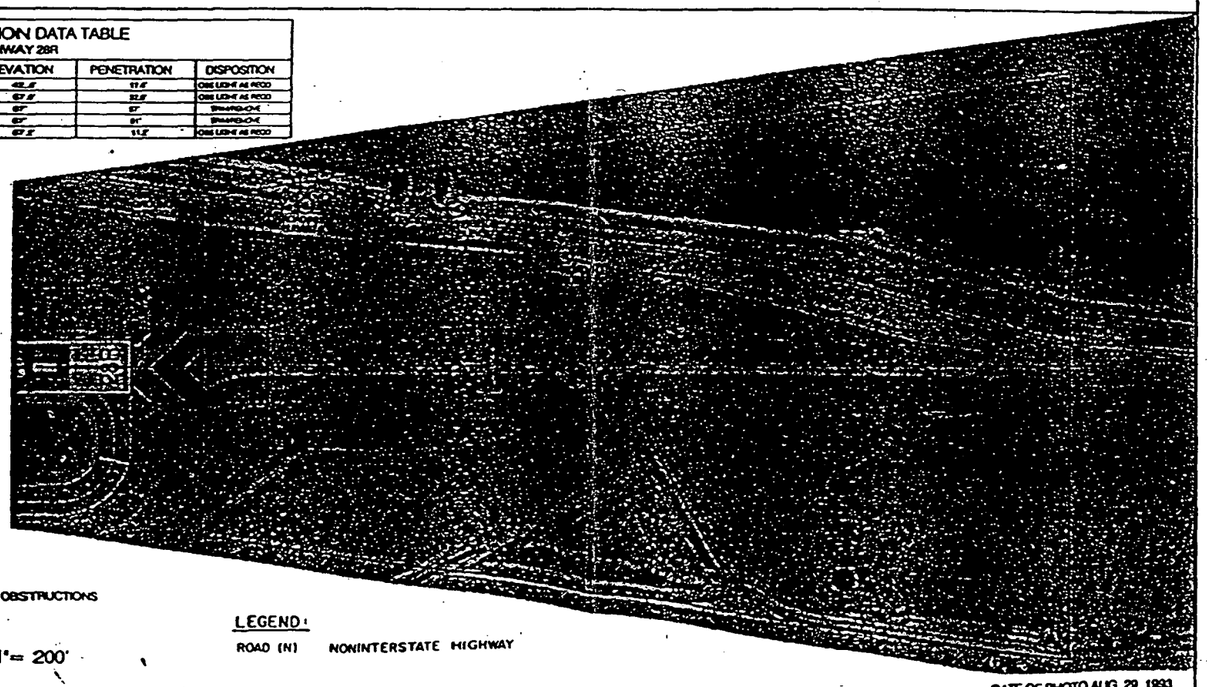


SCALE: 1"= 200' HORIZ.
1"= 10' VERT.

OBSTRUCTION DATA TABLE
RUNWAY 28R

NO.	OBSTRUCTION	ELEVATION	PENETRATION	DISPOSITION
1	GROUND	45.8'	51.4'	OBS LIGHT AS REQD
2	ROAD (N)	67.8'	82.8'	OBS LIGHT AS REQD
3	TREE	67'	67'	STRUCTURE
4	TREE	67'	81'	STRUCTURE
5	ROAD (N)	67.8'	71.8'	OBS LIGHT AS REQD





NOTE:
RUNWAY 10L - NO OBSTRUCTIONS

SCALE: 1"= 200'

LEGEND:
ROAD (N) NONINTERSTATE HIGHWAY

DATE OF PHOTO AUG. 29, 1993

NO.	DATE	BY	REVISIONS	DATE	APPVD

PORT OF PORTLAND
PORTLAND, OREGON
APPROVED
Craig Smith
61999

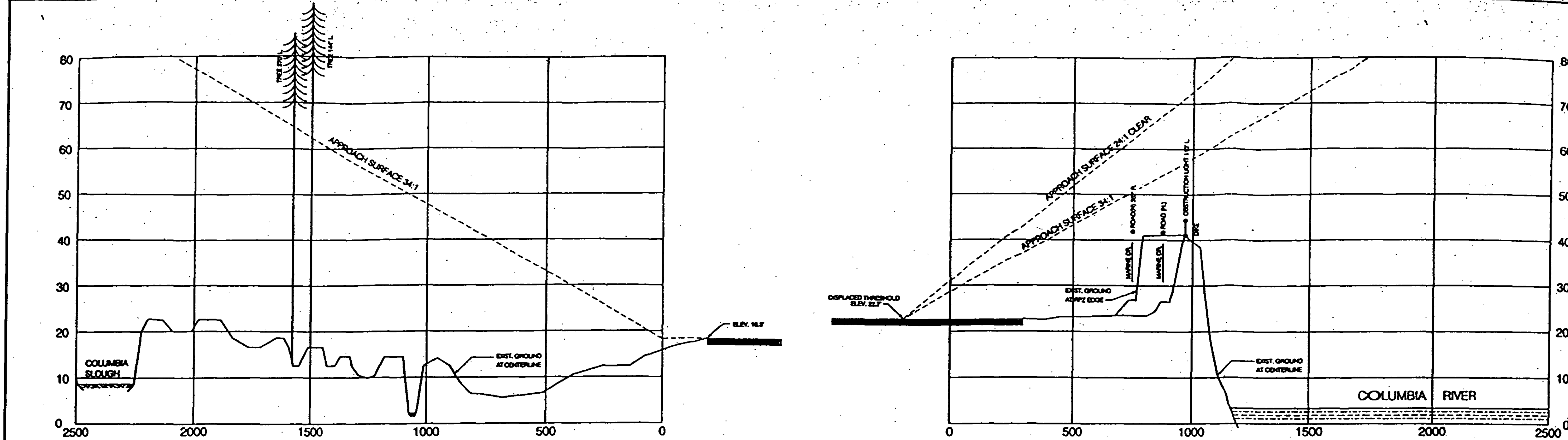
DESIGNED BY	R. SAMPSON
DRAWN BY	K. McDONALD
CHECKED BY	MAR. 1995
DATE	AS SHOWN
SCALE	

PORTLAND INTERNATIONAL AIRPORT

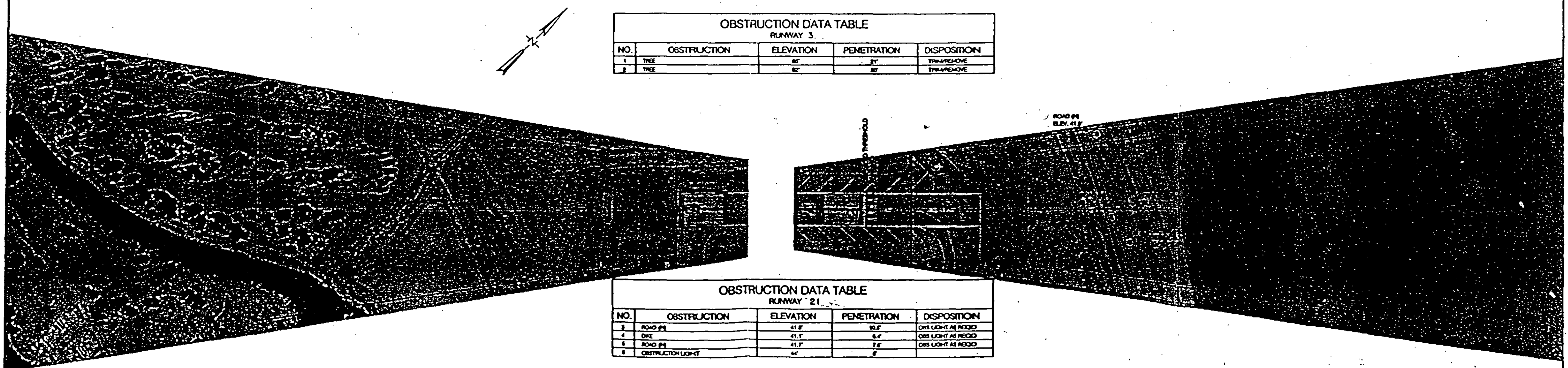
RUNWAY PROTECTION ZONE PLAN
RUNWAY 10L - 28R

SUBMITTED BY Donald R. Campbell
DRAWING NO. PDX 95-9
5/7

THIS DRAWING HAS BEEN REDUCED



SCALE: 1"= 200' HORIZ.
1"= 10' VERT.



OBSTRUCTION DATA TABLE RUNWAY 3.				
NO.	OBSTRUCTION	ELEVATION	PENETRATION	DISPOSITION
1	TREE	85'	21'	TRIM/REMOVE
2	TREE	82'	20'	TRIM/REMOVE

OBSTRUCTION DATA TABLE RUNWAY 21				
NO.	OBSTRUCTION	ELEVATION	PENETRATION	DISPOSITION
3	ROAD (N)	41.5'	10.5'	OBS LIGHT AS REQ'D
4	DIKE	41.1'	6.4'	OBS LIGHT AS REQ'D
5	ROAD (N)	41.7'	7.5'	OBS LIGHT AS REQ'D
6	OBSTRUCTION LIGHT	44'	6'	

LEGEND:

ROAD (N) NONINTERSTATE HIGHWAY

SCALE: 1"= 200'

DATE OF PHOTO AUG. 29, 1993

NO.	DATE	BY	REVISIONS	CK'D	APP'D	NO.	DATE	BY	REVISIONS	CK'D	APP'D

PORT OF PORTLAND
PORTLAND, OREGON

APPROVED

Designed by: R. SIMPSON
Drawn by: K. McDONALD
Date: MAR. 1995
Scale: AS SHOWN

PORTLAND INTERNATIONAL AIRPORT

RUNWAY PROTECTION ZONE PLAN RUNWAY 3-21

Drawing no. PDX 95-9 6/7

THIS DRAWING HAS BEEN REDUCED

Appendix K - Letters from the Public

2230 N.E. Fremont
Portland, OR 97212

August 29, 1997

Mike Burton, Executive Officer
Metro
600 N.E. Grand Ave.
Portland, OR 97232-2736

Subject: Columbia River Management Unit
Gleason Boat Ramp & Broughton
Beach - Master Plan

Dear Mr. Burton:

As a frequent walker on the path at Broughton Beach, I have read with interest the proposed changes for that area (including the Gleason Boat Ramp). I was surprised at the recommendation for a 4.8 million dollar expenditure on an area where I have observed relatively little year round use.

When I spoke to Project Manager, Berit Stevenson, I asked for a copy of the study that had been conducted documenting current usage of both the boat ramp and the beach path. Contrary to what I understand as good business policy, I was told that no study has been done. When I questioned how a recommendation for improvement could be made when no documentation of current conditions exists, I was referred to the "Master Plan". Now that I've read the "Master Plan", I am even more dumbfounded.

Referring to this "plan" under section II "Existing Conditions", page seven: in paragraphs 1, 2, and 4, there are references to "heavy summer use periods" and , (a) "busy summer season". My question to Ms. Stevenson was "what is the frequency of the peak usage?" - i.e., when are the heavy summer use periods - 3 weekends a year? 20 weekends a year? Of course, without a study of current usage, that information is not available. The only usage documentation provided in the plan is on page 14, "Summary of Recent Operating History" which indicates that there has been a 43.5% **decrease** in usage of the boat ramp from 91-92 years to 95-96 years (attendance calculation 91-92 at 66,432 and, 95-96 at 37,530) . Are your numbers correct?

Ms. Stevenson seems to give great weight to the fact that the boat ramp was built in the late '50's. As a person "constructed" in the early '50's, I don't agree that necessarily means one needs to spend 4.8 million dollars on a face-lift. When pressed further, Ms. Stevenson stated that (beyond age) the docks were "falling down" and, one lane of the ramp needed resurfacing. In addition, the straight line approach to the ramp caused a back up of boaters during peak usage (refer to Master Plan page 16 "Facilities", section 1. "...not designed to accommodate the volume of boaters desiring to launch their boats:" What is the volume, and over what period of time?) . Wouldn't the simple, economical way to approach those concerns be to, A. Repair the docks; B. Resurface the ramp, and C. Define volume and usage? If the majority of registered boaters agree that a portion of

their fees are best spent on the improvement and expansion of the Gleason Boat Ramp, so be it, but shouldn't you know if that's the best way to serve the growing needs of the regional boating community?

Where I really part company with this plan is in the "Day Use" proposal. Currently (as told to you by a 12 month a year user of the beach /path) the small strip of parking at the start of the pathway adjacent to the fenced off boat parking is more than adequate for beach/ path users on all but a handful of days a year. My undocumented observations would say that maybe 15 days a year, people park in the lot-type spaces on the south side of Marine Drive, even more rarely on the shoulder of Marine Drive (Plan page 7, final paragraph). Like Metro, I don't have a study to support my opinion. Your plan calls for 214 parking spaces for day use (Plan, page 23), eliminating all free parking. The intention seems to be to draw people to this area for picnicking, volleyball and, fun in the sun. The problem is, Mr. Burton, the Mighty Columbia River is not a "swimmers beach". In fact, even this "Master Plan" calls for the placement of multi-lingual signs alerting day users that "swimming is not permitted" (page 29, "Non-Boating Area" paragraph). This plan reads like Metro intends to create an attractive nuisance. Why would any public agency try to draw families to an area where their lives are put in danger? Ms. Stevenson said no provisions were being made to fund life guards, and the documented dangers of driving/biking Marine Drive are PDOT's concern, not Metro's .

This "Master Plan" upsets me, Mr. Burton. A plan development as shallow and poorly studied as this, does not reflect well on your agency. When asked what the driving force for the expenditure of 4..8 million dollars was, the only coherent answer given to me was "Metro". Some people think some boaters want it - don't know who or how many, for sure. Maybe River Patrol wants it, but then again maybe they simply want the funding to do their job more than they want a fancy boat house - don't know for sure. Certainly there must be at least 214 car loads of day-trippers for a significant portion of the year that want a picnic table for lunch, but, of course, won't want to swim, however, no one knows that either.

My suggestion: **commission a study of current usage**; do what needs to be done to keep the boat ramp in good repair; leave the beach and the free beach parking alone unless factual data supports the need for additional development. If development is undertaken, stand up to the full responsibilities associated with that development, which would include protecting the users from the inherent dangers of that area. Don't let this plan speak as Metro's contribution to the quality of life in the region..

Respectfully yours,

Patricia Lorenz

cc: Ed Washington
Dave Obern, Oregon State Marine Board
Bill Stewart, "The Oregonian"
Berit Stevenson, Metro, Project Manager

Berit Stevenson
Project Manager, General Services
METRO
600 NE Grand Avenue
Portland, Oregon 97232-2736
September 19, 1997

Dear Berit,

Thank you for your time, yesterday, in helping me review the draft proposal for the Gleason Boat Ramp/Broughton Beach project. As a kayaker, and frequent user of this site, I appreciate the opportunity to provide input at this early stage. Speaking for myself and kayaker friends, we hope this input will be viewed as representing the perspective of all site-users in the "car-top/shallow draft small vessel (mostly non-motorized) category - e.g. kayaks, canoes, rowboats, small sailboats, zodiacs, etc.

Main Concerns: 1) to be out of the way of the loading/unloading area used by motorized boats and personal watercraft.

2) to have ease of access to beach/water
   a: for loading/unloading craft from vehicle
   b: for launching/landing

Possible Access Routes (as per our discussion)

1) from parking spaces immediately east of the fishing pier
   a: with gravel ramp through rip/rap (as in Mike Fesenmeyer's diagram)
   b: with low-profile dock alongside pier

2) from parking spaces further east, by the concession area, and accessing across beach to the water

3) or from another, as yet not designated site

Access needs are fairly minimal in terms of structural needs, so hopefully, there should be a satisfactory way of integrating our use into the site.

Please feel free to use Mike and I as resources for additional input. We also have access to many other users, through our membership in OOPS (Oregon Ocean Paddling Society). We would certainly be willing to be a liason for you, as needed.

Again, thank you for your time and interest.

Sincerely,

Jewel Derin Lehman
4031 N.E. Wistaria Drive
Portland, Oregon 97212-2963

H: 287-7861
W: 230-4833

2230 N.E. Fremont
Portland, OR 97212

October 18, 1997

Mike Burton
Executive Officer
Metro
600 N.E. Grand Ave.
Portland, OR 97232-2736

Re: Your Letter 9/23/97
Gleason Ramp/Broughton Beach

Dear Mr. Burton,

Wow. In the war of words, you win. At the risk of setting things off again, I feel I must offer some final thoughts.

First. I am not earning tens of thousands of dollars to study the needs of the regional boating community. As I said in my original correspondence, if studies show that the improvement of the Gleason Boat ramp is the best use of boaters' fees - just do it. I wonder, however, if the excellent record of usage of Chinook Landing is as much a function of convenience for east Multnomah and Clackamas boaters as it is of boaters' preference for an efficient ramp lay-out. I don't know this, but trust you do.

Second: Day Use. Your response to my charge of creating an attractive nuisance missed my point. Just because some people have been doing it for years, does Metro feel that makes it okay to tacitly encourage more people to do it ? I pity the teenager who uses that logic on his parents. Broughton Beach is a thin strip of land - if a visitor spends much more than an hour there, there is very little to do but swim. Do you or your staff ever visit this area?

As justification for developing this area, you again refer to it as a "response to the growing demand for such recreational facilities". Great. Please just share with me how you know the demand for beach access (with " NO SWIMMING ALLOWED") is growing. This is all I have asked for from the beginning. I am there nearly every day of the year and I just don't see it - 99.9% of the time I'm there, there are fewer than 10 people on the beach and path.

This "valuable resource" is described as the only beach access between Kelly Point Park and Rooster Rock. Okay. So? I've never been to Rooster Rock. Don't know the usage demands and won't comment. However, a second area I visit daily is Kelly Point Park. Now, there's a park. Trials, a meadow, picnic tables, even a cool new restroom facility being put in. Have you been there lately? Even during the very nicest weekends of a most excellent summer, Kelly Point Park was nearly empty! You're simply not going to

convince me that the huge empty parking lots of Kelly Point Park point to the need for additional beach access. These are areas I know.

Somewhere in the "Master Plan" , the appendix, I think, is P-DOTS proposal for pedestrian activated cross-walks. Now there's a straight forward solution to the rare problem of people parking on the south side of Marine Drive and needing to cross for access to Broughten Beach. Seems almost too easy to work, doesn't it?.

I realize that I am fighting "the man" on this one and will not bother you again with my outrage. I leave you, quoting part of a song by Joni Mitchell (Siquomb Publishing - "Big Yellow Taxi"):

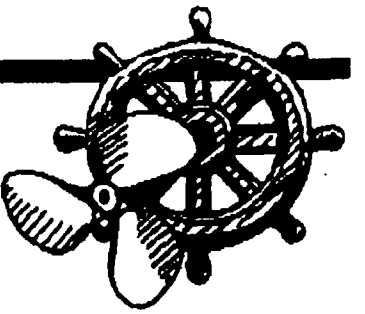
> They took all the trees
> And put them in a tree museum
> And they charged all the people
> A dollar and half just to see 'em
> Don't it always seem to go
> That you don't know what you've got
> Till it's gone
> They paved paradise
> And put up a parking lot.

Sincerely

Patricia Lorenz

CC: Ed Washington

THE BABECKOS YACHT BROKER INC.



3157 N.E. Marine Drive, Portland, Oregon 97211
(503) 288-6381 • FAX (503) 288-6382

November 18, 1997

To: Metro Regional Parks and Greenspaces Committee Members

From: Bill Babeckos, Babeckos Yacht Broker

A careful review of the draft Master Plan for the M. James Gleason boat ramp and the easterly adjoining beach, Broughton Beach, raises the following issues as well as some new ideas:

- Commercial user conditions MUST be written into the final plan. For example: the "removable bollards" or "gates" unacceptable to large rigs. Commercial rig turning radii *must* be specified on the plan on all necessary corners.
- The draft proposal says the preliminary policy is that ramp access will be open 24 hours a day, 7 days a week (page 30). This MUST be maintained without any security gates.
- Security lighting MUST be provided.
- It is our opinion as River People that the new County Sheriff boathouses DO NOT need to be replaced. And most certainly without a written survey of condition by a qualified surveyor.
- It needs to be "cast in concrete" that all/any collected fees are to be only used for maintenance of the site.

Please also consider the following:

1. Extend Tri-Met #6 along Marine Drive to the ramp. In time, this will bring many people without autos to the businesses and activities along the street.
2. Give more serious thought and study to rebuilding the existing Sheriff's Patrol building and/or the Portage building.
3. Give more serious thought to NOT charging the occasional users — bikers, hikers, bird watchers, kite flyers and riverbank walkers.
4. Keep the parking areas south of Marine Drive and on the north side across from the Cell Tower as usable, no fee spaces for occasional users.

Unfortunately, I will be out of town on business and unable to attend the December 2 meeting.

The public launch ramp that was and is paid for by boat licensing money and the refundable federal gas taxes has been run successfully for approximately 15 years on the honor system.

There is no need now for it to be micro-managed by Metro at additional cost.

Sincerely,

Bill Babeckos

Serving Boaters since 1954

Post-it™ brand fax transmittal memo 7671 | # of pages ▸

To BERT STEVENSON	From SETH TANE
Co.	Co.
Dept.	Phone # 735-0339
Fax #	Fax #