

# PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Yarrow Bay Marina – Eastern Parcel  
5207 Lake Washington Boulevard Northeast  
Kirkland, Washington 98033**

August 17, 2006

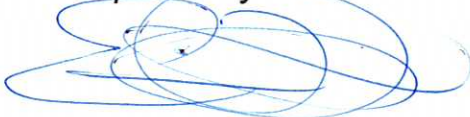
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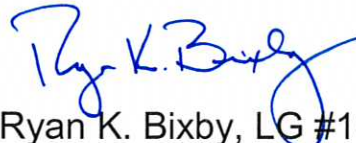
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Ryan K. Bixby

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## EXECUTIVE SUMMARY

Goodman Real Estate, Inc. commissioned Sound Environmental Strategies Corporation (SES) to complete a Phase I Environmental Site Assessment of the Yarrow Bay Marina – Eastern Parcel located at 5207 Lake Washington Boulevard Northeast in Kirkland, Washington (the property). The purpose of this Environmental Site Assessment is to identify, to the extent feasible, recognized environmental conditions that may have resulted from the improper use, manufacture, storage and/or disposal of hazardous or toxic substances that could affect the future acquisition and/or development of the property. The scope of work included a review of historical documents regarding the property, review of current federal and state lists citing known and potentially contaminated sites, a property reconnaissance, and preparation of this report.

Based on information reviewed in the course of this investigation and discussed in appropriate sections of this report, it appears that the property was undeveloped prior to 1938. Two single-family residences were constructed in 1938 and 1941, both of which were heated by stoves. A 1950-vintage single-family residence, only the basement of which remains, was historically heated by an oil-burning furnace. No information regarding the type of vessel (underground or above-ground) used to store the heating oil or its location, capacity, or current status (removed, abandoned, or closed-in-place) was observed in the available public record. The remainder of the property is used as a boat storage lot. The historic use and storage of heating oil on the property constitutes a recognized environmental condition.

This executive summary is presented solely for introductory purposes and the information contained in this section should be used only in conjunction with the full text of this report. A complete description of the project, property conditions, investigative methods, and investigation results is contained within this report.

Limitations to SES liability concerning procedures, findings, and conclusions are presented in Section 6 at the end of this report.

## 1.0 INTRODUCTION

### 1.1 PURPOSE OF STUDY

Sound Environmental Strategies Corporation (SES) was commissioned by Goodman Real Estate, Inc. to complete a Phase I Environmental Site Assessment (ESA) of the Yarrow Bay Marina – Eastern Parcel located at 5207 Lake Washington Boulevard Northeast in Kirkland, Washington (the property). The purpose of this ESA is to identify, to the extent feasible, recognized environmental conditions (RECs) resulting from the improper use, manufacture, storage and/or disposal of hazardous or toxic substances that could affect the future acquisition and/or development of the property. This study is intended to satisfy the level of effort often referred to as "due diligence" in the Superfund Amendment and Reauthorization Act of 1986, as well as similar requirements promulgated in the Model Toxics Control Act (MTCA), Chapter 70.105 D (Section 040) RCW with regard to liability.

### 1.2 METHODOLOGY/SCOPE OF WORK

This Phase I ESA was conducted in general accordance with procedures outlined in American Society for Testing and Materials (ASTM) E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. ASTM E 1527-00 uses the term "recognized environmental conditions" to assess environmental risks associated with a property. The term is defined as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The scope of work for this study included the following tasks:

- A review of various sources of historical information including reverse city street directories such as those published by Polk, Inc. and Cole, Inc.; Sanborn Fire Insurance Maps; the Puget Sound Regional Archives; the King County Assessor's Office; Kirkland City Hall; and aerial photographs of the property and vicinity dating back to 1936.
- A reconnaissance of the property and surrounding area to search for visual and/or olfactory evidence of contamination such as stained soil, unusual odors, distressed vegetation, pipes, drums, oil sheens and/or discolored water, and improper manufacturing or waste disposal practices.
- Review of current federal databases including the United States Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, the EPA National Priority List (NPL), the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, RCRA Corrective Action Report, Facility Index System (FINDS), Emergency Response Notification System (ERNS), and other lists.
- Review of current state databases including the Washington State Department of Ecology (Ecology) listing of underground storage tanks (USTs), Leaking Underground Storage Tank (LUST) listing, and Confirmed and Suspected Contaminated Sites listing (CSCSL).

- An interview with Mr. Dennis Bortko, the general manager, who is familiar with former and current uses of the subject property.
- Preparation of this report.

## 2.0 FINDINGS

### 2.1 DESCRIPTION OF PROPERTY AND SURROUNDING AREA

The property is located approximately 2 miles south of downtown Kirkland, Washington, as shown in Figure 1. Figure 2 depicts a plan of the property. Property photographs are presented in the following section.

The property includes an irregularly shaped parcel (#172505-9114) that covers approximately 38,142 square feet (0.88 acres) of land. Although King County Assessor records indicate that a 1950s-vintage, two-story, wood-framed retail store and wood-framed garage occupy the property, only a concrete basement of a 1950-vintage residence remains on the southwest corner of the parcel. The structures noted in the King County Assessor records are associated with the Yarrow Bay Marina operations, which are primarily conducted on the parcel adjacent to the west and south of the property. The areas north and east of the basement are used as gravel boat storage lots.

#### 2.1.1 Legal Description of Property

**Parcel #172505-9114.** 172505 114 PORTION OF THE SOUTH HALF OF THE SOUTH HALF OF GOVERNMENT LOT 2 IN THE NORTHWEST QUARTER STR 17-25-05 DAF: COMM. AT INTERSECTION OF NORTH LINE SD SOUTH HALF OF SOUTH HALF & WESTERLY MARGIN OF LAKE WASHINGTON BOULEVARD NORTHEAST TH ALONG SD MARGIN SOUTH 01-09-47 EAST 75 FEET TO TPOB TH CONTIGUOUS ALONG SD MARGIN SOUTH 01-09-47 EAST 220.32 FEET TH N88-52-05 WEST 135 FEET TH NORTH 43-51-02 WEST 75.46 FEET TH NORTH 01-08-58 EAST 166.38 FEET TO SOUTH LINE OF TRACT DEEDED TO G.A. AND E.M. DAHLSTROM BY DEED REC. NO. 2980236 TH ALONG SD SOUTH LINE SOUTH 88-51-02 EAST 171.79 FEET TO TPOB – ALSO KNOWN AS LOT 1 CITY OF KIRKLAND ALTERATION OF LOT LINE NO. LL-97-57 REC. NO. 9707160998.

#### 2.1.2 Adjoining Properties

Development in the vicinity of the property consists primarily of multi-family residential communities. Uses of nearby properties at the time of the SES property visit are summarized below and are also shown in Figure 2.

- **North:** The Carillon Point condominiums are located on the parcel adjacent to the north.
- **South:** A portion of the parcel adjacent to the west extends eastward to bound the property to the south. The Breakwater Condominiums are located farther south.
- **West:** The western parcel owned by Yarrow Bay Marina bounds the property to the west. Beyond the adjacent parcel lies Lake Washington.
- **East:** Lake Washington Boulevard lies along the eastern boundary of the property. Across Lake Washington Boulevard are the Freshwinds Condominiums to the northeast and the Yarrow Hills Villas directly east of the property.

## 2.2 GEOLOGIC CONDITIONS

Geologic conditions often influence the environmental conditions of a property. Underlying soil and bedrock formations may facilitate or impede the migration of chemical contaminants in groundwater, and may be a source of contaminants such as radon and metals. This section of the report summarizes geologic factors that may impact the property with regard to environmental concerns.

### 2.2.1 Geology

Review of geologic maps (Liesch et al, 1963) and reports by others (Associated Earth Sciences 2002, 2006) indicate that the property is immediately underlain by modified fill materials, which consist of loose sand with varying amounts of silts and gravel. Possession Drift, deposited in the Late Pleistocene prior to the Vashon Stage of glaciation, underlies the fill material and consists of dense fine sand with varying amounts of silts and gravel.

### 2.2.2 Hydrologic and Hydrogeologic Environment

Topographically, the property is situated on a westerly facing slope at elevations between 35 and 60 feet above sea level. Two level areas on the property were created for the storage of boats.

Based solely upon inference from topography and local drainage patterns, it appears that shallow-seated groundwater in the vicinity of the property may locally flow in a westerly direction toward Lake Washington. Potential off-property sources of chemical contamination that might adversely affect the property would, therefore, most likely be located to the east in an inferred upgradient hydrologic position.

### 2.2.3 Radon

Radon, a gas produced by the radioactive decay of radium, is found in soil, water, and rock. Naturally occurring radon levels vary from location to location, depending on bedrock type, fracturing, and soil gas permeability.

Medical and environmental studies suggest that chronic exposure to radon can be a health risk, primarily as a cause of lung cancer (EPA, 1987). In an effort to minimize the potentially harmful effects of exposure to radon gas, the EPA has established an action level of 4.0 picocuries per liter (pCi/L). Concentrations in excess of 4.0 pCi/L indicate a potential health threat and trigger mitigation measures to lower radon concentrations and/or exposure.

Review of the results of radon measurements in residences, compiled by the Bonneville Power Administration (BPA, 1993), revealed that in the vicinity of the property (Township 25 North, Range 5 East), the average radon concentration in residences is 0.77 pCi/L, which is well below the action level of 4.0 pCi/L. This estimate is based upon measurements collected in 16 residences. None of the readings in the area exceeded the action level of 4.0 pCi/L. Based upon the radon data compiled by the BPA, it would appear that the potential for exposure to harmful concentrations of radon on the subject property is low.

## 2.3 HISTORICAL REVIEW

Information regarding the history of environmental issues on the property and land uses in the area was gathered through interpretation of aerial photographs of the property locality, dated 1936, 1946, 1956, 1960, 1968, 1974, 1980, 1985, 1990, 1995, 2000, 2002, and 2004; a review of

available historical documents such as Kroll Atlases and Polk City Directories; a review of property records at the King County Assessor's Office and Puget Sound Regional Archives; and interviews with persons having some knowledge of the property-use history. Information developed as a result of this effort is summarized in the following sections, and supporting documents are presented in Appendix A.

### 2.3.1 Historical Development of Property and Surrounding Area

From the file resources of the King County Assessor's Office and Washington State Archives, it appears that the property was purchased in the late 1960s by Donald Wilcox and has remained in the Wilcox family since that time. The following limited history of ownership has been established for the property.

#### Tax Parcel 172505-9114

Grantee	Recording Date
Donald A. Wilcox	June 3, 1968
Wallace O. Nelson	August 7, 1961
John A. Taylor	December 9, 1937

The following bulleted paragraphs provide an interpretive summary of our observations in each historic aerial photograph. The time intervals between the various historic aerial photographs selected for this particular project are intended to permit a general assessment of overall development and land use in the vicinity of the subject property.

- 1936.** The subject property appears undeveloped. A boathouse occupies the parcel to the west, and a covered dock extends over Lake Washington on the parcel adjacent to the west of the property. Northeast 52<sup>nd</sup> Street is located south of the property. A single-family residence occupies the parcel to the north. A naval shipyard is visible farther north. The parcels to the south and east are undeveloped.
- 1946.** Most of the property has been cleared. The rectangular structure visible on the parcel to the west in the 1936 aerial photograph is no longer present. Thin, rectangular structures are visible on the parcel adjacent to the west of the property. The existing dock has been constructed on the parcel to the west, although it is not in its current configuration. A single-family residence has been built on the parcel to the south, and a small dock associated with the residence is evident. Northeast 52<sup>nd</sup> Street is no longer located south of the property. Three single-family residences occupy the parcels to the north. A single-family residence has been constructed to the east. The naval shipyard farther north has been enlarged. A copy of the 1946 aerial photograph is appended to this report.
- 1956.** Three single-family residences have been erected on the property. The parcel to the west of the property appears paved, and a large square building has been constructed. Large warehouses that appear to be associated with the shipyard have been constructed farther north. Single-family residences are visible to the east and south. A copy of the 1956 aerial photograph is appended to this report.

- **1960.** No significant changes are evident on the property. With the exception of one single-family residence, the parcel to the north has been cleared.
- **1968.** No significant changes are evident on the property. The dock west of the property has been considerably expanded. No significant changes are evident on the surrounding properties.
- **1974.** Two single-family residences have been removed from the property. An addition has been constructed on the east side of the building located on the parcel to the west. A small structure or covered dock has been constructed immediately offshore to the south of the building. A long, thin structure separates the property from the parcel to the west. A tall building has been constructed to the east across Lake Washington Boulevard Northeast, which has been widened. The surrounding parcels remain residential. A copy of the 1974 aerial photograph is appended to this report.
- **1980.** Northeast 52<sup>nd</sup> Street has been significantly reshaped from a soft curve to an S-curve, and it no longer intercepts the adjacent parcel. The upper portion of the two-story single-family residence located on the property is gone. The shipyard previously visible to the north has been removed and the land at that site is undeveloped.
- **1985.** No significant changes are evident on the property. A small shed is visible on the parcel to the west. A large residential complex has been constructed across Lake Washington Boulevard Northeast to the east.
- **1990.** Most of the property has been cleared. An extension has been added to the dock located on the parcel to the west. The parcel to the north is visible in its current configuration, including docks. The parcel to the east-northeast of the property has been converted into a large multi-family residential complex.
- **1995.** No significant changes are visible on the property or surrounding parcels.
- **2000.** No significant changes are evident on the property. The long structure bounding the western edge of the property is no longer visible.
- **2002 to 2004.** The subject property and surrounding parcels appear much the same as they do today.

According to resources available at the Washington State Archives, along with our review of available historic aerial photographs, it appears that the subject property has been developed since at least 1938. Two single-family residences were reportedly constructed in 1938 and 1941, respectively. A third single-family residence was constructed in 1950 and was heated by an oil-burning furnace, although no information regarding the type of vessel (underground or aboveground) used to store the heating oil for the former oil-burning furnace or its location, capacity, or current status (removed, abandoned, or closed-in-place) was observed in the available public records. Only the basement of the 1950-vintage single-family residence remains on the eastern portion of the property. Although the dates of demolition are not clear in the public record, aerial photographs indicate that the other two single-family residences were removed from the property by 1974.



In an effort to further ascertain the past tenants and use of the property, SES reviewed Puget Sound Regional Archives records in combination with available Polk City Directories published in 1938, 1964, 1968, 1973, 1978, 1983, and 1996. Yarrow Bay Marina occupied the property during all dates investigated. The surrounding properties have alternated between single- and multi-family residences.

The Kirkland City Hall provided copies of several Fire and Building Department inspection records and violation notices associated with the property, although the available information was associated only with operations conducted on the parcel adjacent to the west, which is located downgradient of the subject property. Operations conducted on the downgradient parcel are not likely to impact the subject property and therefore are not discussed in detail here. However, copies of the City of Kirkland's inspection records and letters, construction permits, and Ecology UST records associated with the adjacent parcel are provided in Appendix A.

Borrowing from the terminology defined within ASTM, no "reasonably ascertainable" or "likely to be useful" information prior to 1936 was available. The absence of such information has no material effect upon the conclusions of this report.

### 2.3.2 Summary

Based on our review of available historical information it would appear that the property has been used for residential purposes since at least 1938. The historic use and storage of heating oil at the property constitutes a REC.

## 2.4 REGULATORY REVIEW

A review of regulatory agency records was conducted for the property and nearby properties to identify known or potential sources of contamination that could adversely impact the property. Records were obtained using the commercial database search services of Environmental Data Resources, Inc. (EDR), which queries EPA, Ecology, and other similar databases. The commercial database search report was reviewed for accuracy of property locations and was modified appropriately. The complete EDR report is included in Appendix B and contains figures showing the locations of the reportable sites within the appropriate search radius for each database queried. Each site located in the search is assigned an alphanumeric identifier.

The locations and natures of nearby sites on which releases have or could potentially have occurred are identified in the EDR report. Twenty-eight mapped sites were listed in the EDR report. Many of these sites were listed more than once, including the subject property. Of the listings, two of the sites are 1) located in an inferred up- to cross-gradient hydrologic position, and 2) near enough to the subject property to pose a significant element of risk. These include:

**Yarrow Bay Marina/Yellow Bay Marina**, 5207 Lake Washington Boulevard (the subject property), is included in the RCRA-SQG, CSCSL, FINDS, SPILLS, ICR, and UST databases. The parcel adjacent to the west and located downgradient of the subject property is used as a refueling station and a boat repair facility owned by Yarrow Bay Marina. Records on file at Ecology are related to those activities conducted in association with Yarrow Bay Marina operations. Due to the upgradient position of the property relative to the marina, and because the likelihood of its activities impacting the property is low, a detailed discussion of records on file at Ecology does not appear warranted. However, copies of Ecology records are provided in Appendix A.

- **Skinner Development Co.**, 5305 Lake Washington Boulevard, is included in the RCRA-SQG and FINDS listings as a small-quantity generator. No violations associated with the facility have been reported to Ecology.

## 2.5 PROPERTY RECONNAISSANCE

An environmental scientist from SES visited the property on May 16, 2006 to review conditions and land use practices on the property as well as on adjacent and nearby properties. Access to the property was provided by Mr. Dennis Bortko, the property manager, who was present on the property during the visit. The representative areas reviewed during the site visit included the exterior of the building on the property, its use, and the exterior of the surrounding properties.

### 2.5.1 Grounds and Buildings

Observations made during the SES property reconnaissance are summarized below.

- The property was primarily used as a boat storage facility.
- What appears to be the basement of the 1950-vintage single-family residence occupies the eastern portion of the property. Although the basement is locked, Mr. Bortko stated that it is used for storage of non-hazardous materials.
- What appears to be a vent line for a possible heating oil storage tank protrudes from the south wall of the 1950-vintage basement.
- An empty 55-gallon drum was located adjacent to the west of the basement, as was an empty aboveground storage tank (AST), which, according to Mr. Bortko, was temporarily used for waste oil storage until a new AST was purchased. No spills, stains, or evidence of stressed vegetation were observed in the vicinity of the drum or AST.
- A significant drop in elevation is evident between the subject property and the parcel adjacent to the west.
- The adjacent parcel is used as a refueling station with three fuel dispensers. Two USTs associated with the refueling station also are located on the parcel.
- A boat repair facility operates on the parcel adjacent to the west.

### 2.5.2 Asbestos-Containing Materials and Lead-Based Paint

The 1950 construction date of the subject building suggests the potential for asbestos-containing materials and lead-based paint.

### 2.5.3 Utilities and Solid Waste Management

Potable water and sewer service are provided to the subject property by the City of Kirkland. Electricity is provided by Puget Sound Energy. Solid waste disposal and recycling services are provided by Waste Management.

### 2.5.4 Summary

One REC was observed during the course of our reconnaissance, including:

- A possible old vent line for a heating oil tank noted in the vicinity of the 1950-vintage basement.

### 3.0 CONCLUSIONS

SES performed a Phase I ESA in conformance with the scope and limitations of ASTM practice E 1527-00, of the Yarrow Bay Marina – Eastern Parcel located at 5207 Lake Washington Boulevard in Kirkland, Washington. Any exceptions or deletions from this practice are described in Section 5.0 of this report. This assessment has revealed no evidence of RECs in connection with the property with the exception of the following:

- **The historic use and storage of heating oil on the property.**

If some degree of confidence is desired regarding potential impacts to the environmental quality of soil or groundwater beneath the property from the REC, subsurface sampling and laboratory testing would be required. Recommended areas for subsurface investigation include the southern edge of the 1950-vintage basement.

### 4.0 PREPARER'S CREDENTIALS

This Phase I ESA was researched and written by Ms. Erin K. Rothman. Ms. Rothman, a certified Washington State Site Assessor (5278080-U7), holds a B.A. in technical and scientific communication and an M.S. in natural resources. She has completed numerous Phase I ESAs. This ESA was reviewed by Mr. Ryan K. Bixby. Mr. Bixby is a Washington State Registered Geologist (#1691), a certified Washington State Site Assessor (32-US-32024395), and an AHERA Certified Asbestos Inspector (#MO9907012). He holds a bachelor's degree in geology and has been a professional environmental consultant for more than 8 years. During his career in the environmental field, he has completed over 500 Phase I ESAs in Washington, Oregon, and California, and has directed the completion of hundreds more by corporate technical staff. In addition, Mr. Bixby has completed and managed over 100 Phase Two ESAs, and has initiated and managed the remediation of more than 20 contaminated properties.

### 5.0 DEVIATIONS

Access into the 1950-vintage basement was not acquired during the property reconnaissance and its interior could not be reviewed.

### 6.0 LIMITATIONS

This Phase I Environmental Site Assessment report is for the exclusive use of Goodman Real Estate, Inc. The purpose of this report is to provide the client with an assessment of the potential for the presence of contamination on the property. This report is neither an endorsement nor a condemnation of the property.

The findings and conclusions documented in this report have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by environmental professionals currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our contract. Except where

noted in this document, the work for this project has been completed in general accordance with procedures specified in ASTM E 1527-00. No other warranty, expressed or implied, is made.

The findings presented in this report are based upon observations made during a single property visit by SES personnel on May 16, 2006. Since soil or groundwater on the property were neither sampled nor tested there remains a potential for the presence of unknown, unidentified, or unforeseen surface or subsurface contamination. Further evidence against such potential contamination would require appropriate exploration and testing.

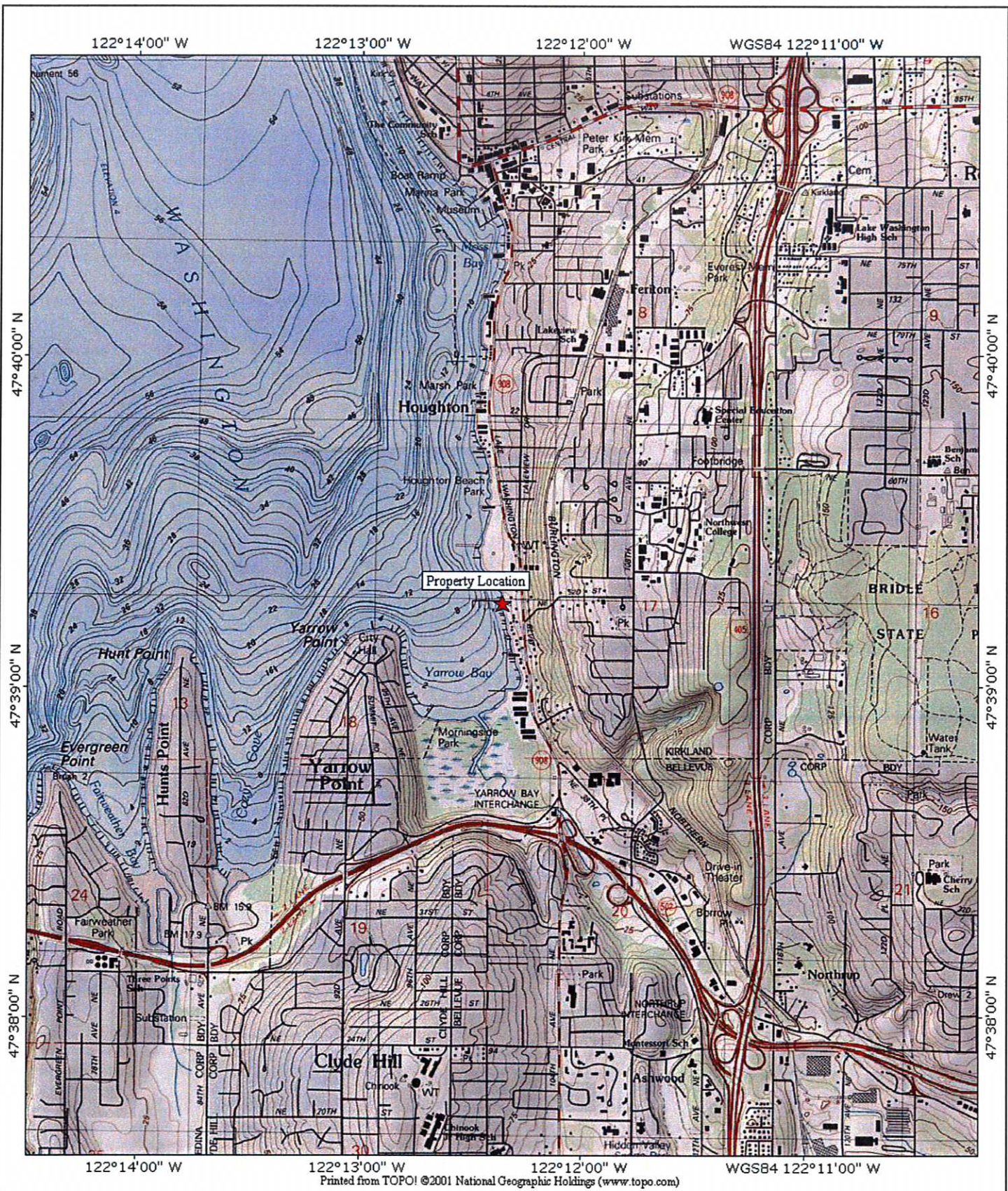
Certain information used by SES in this assessment was obtained from various sources believed to be reliable, including the EPA, the state environmental agency, and personal interviews. Although SES conclusions, opinions, and recommendations are based, in part, on such information, SES services did not include the verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, SES reserves the right to amend or revise its conclusion, opinions and/or recommendations.

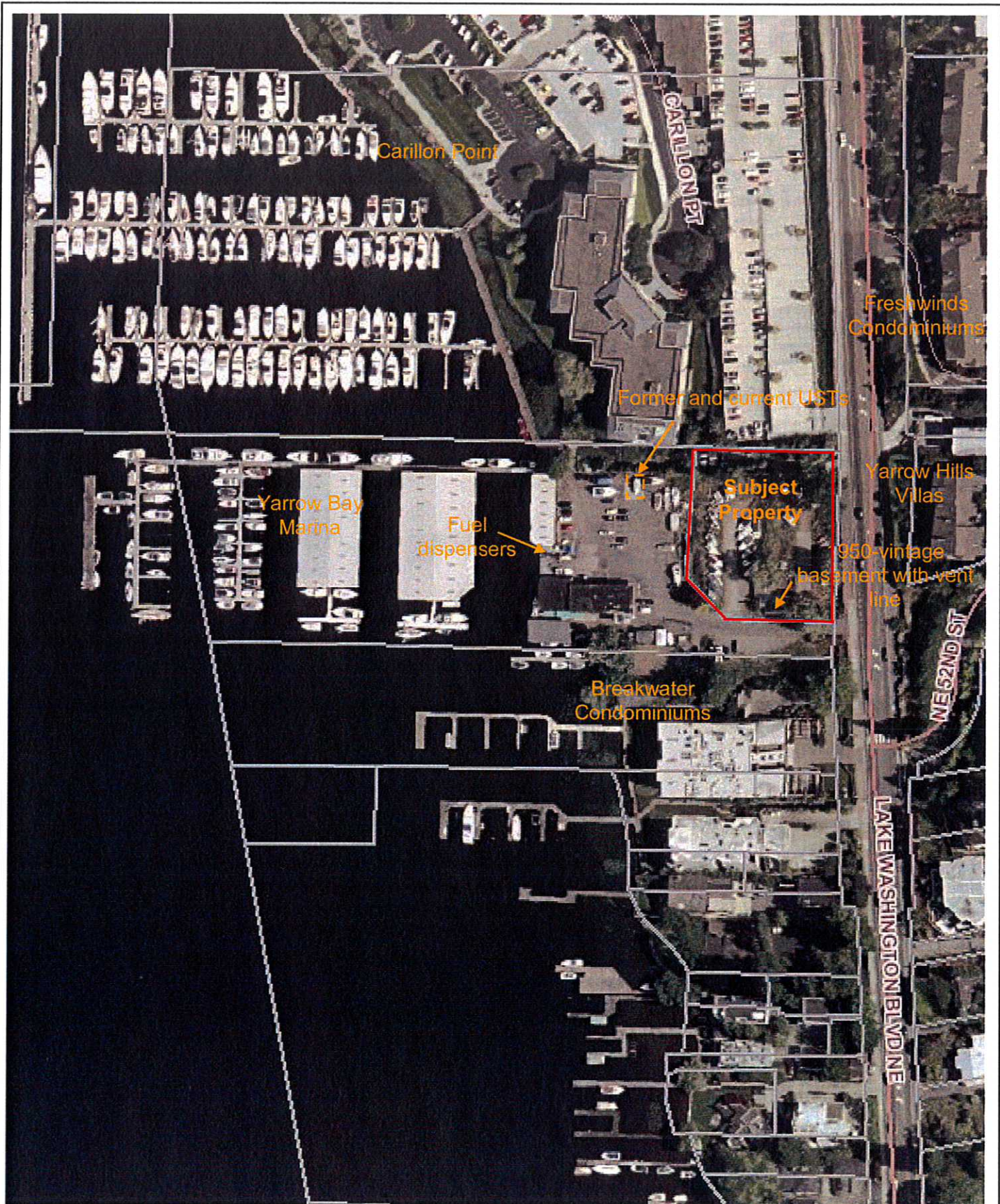
Because the SES report is based upon information, the accuracy of which was not determined, and because SES observations made during the property reconnaissance were limited as stated above, SES cannot and does not guarantee that the property is free of hazardous or potentially hazardous materials or conditions, or that latent or undiscovered conditions will not become evident in the future. Since property activities beyond SES control could change at any time after the completion of this assessment, the observations, findings and opinions can only be considered valid as of the date hereof.

## 7.0 REFERENCES

- American Society for Testing and Materials, 1997, ASTM E 1527-00: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- Associated Earth Sciences, Inc. June 24, 2002. Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report. Yarrow Bay Office Building, Kirkland, Washington.
- Associated Earth Sciences, Inc. April 6, 2006. Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report. Yarrow Bay Marina, Kirkland, Washington.
- Bonneville Power Administration, January 1993, Radon Monitoring Results from BPA's Residential Conservation Program, Report No. 15 (with April 1993 Map).
- Liesch, B.A., Price, C.E., and Walters, K.L., 1963, Geology and Groundwater Resources of Northwestern King County, Washington. Water Supply Bulletin No. 20, 58 pps., 3 plates, 9 tables, 9 figures.
- The United States Environmental Protection Agency, September 1987, Radon Reference Manual EPA 520/1-87-20.
- Thomas Brothers Map Co., 1999, The Thomas Guide: King/Pierce/Snohomish Counties.

# Figures



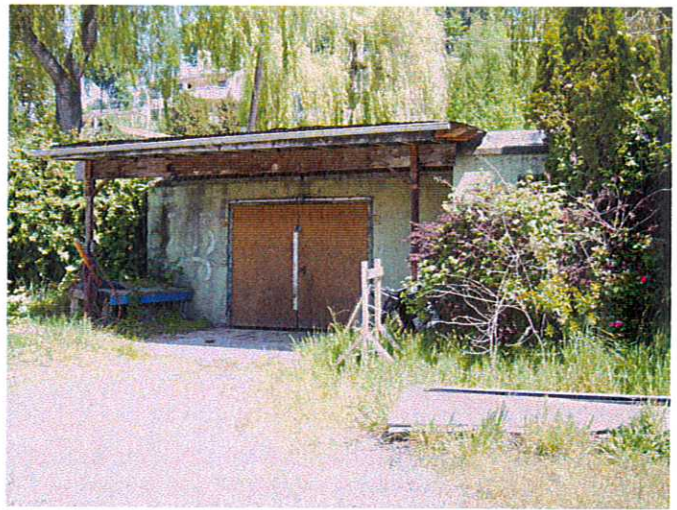


# Property Photographs





Photograph 1. View of the southern property boundary.



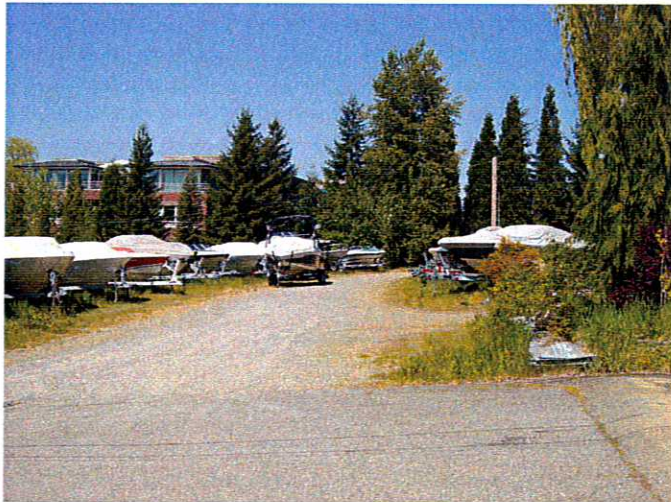
Photograph 2. Locked entrance to the basement of the 1950-vintage single-family residence.



Photograph 3. Potential vent line protruding from the southern side of the 1950-vintage basement.



Photograph 4. Old waste oil storage tank located outside of the basement.



Photograph 5. Gravel-covered boat storage lot facing north.



Photograph 6. View of the property from its western property boundary.

# Historical Aerial Photographs



Subject Property

1946 Walker & Associates



www.soundenvironmental.com



Date: May 23, 2006  
Drawn By: E. Rothman  
Chk By: R. Bixby  
SES Project No.: 0515-001  
File ID: 515-1 1946 Aerial

Yarrow Bay Marina – Eastern Parcel  
5207 Lake Washington Boulevard  
Northeast  
Kirkland, Washington

Aerial Photograph

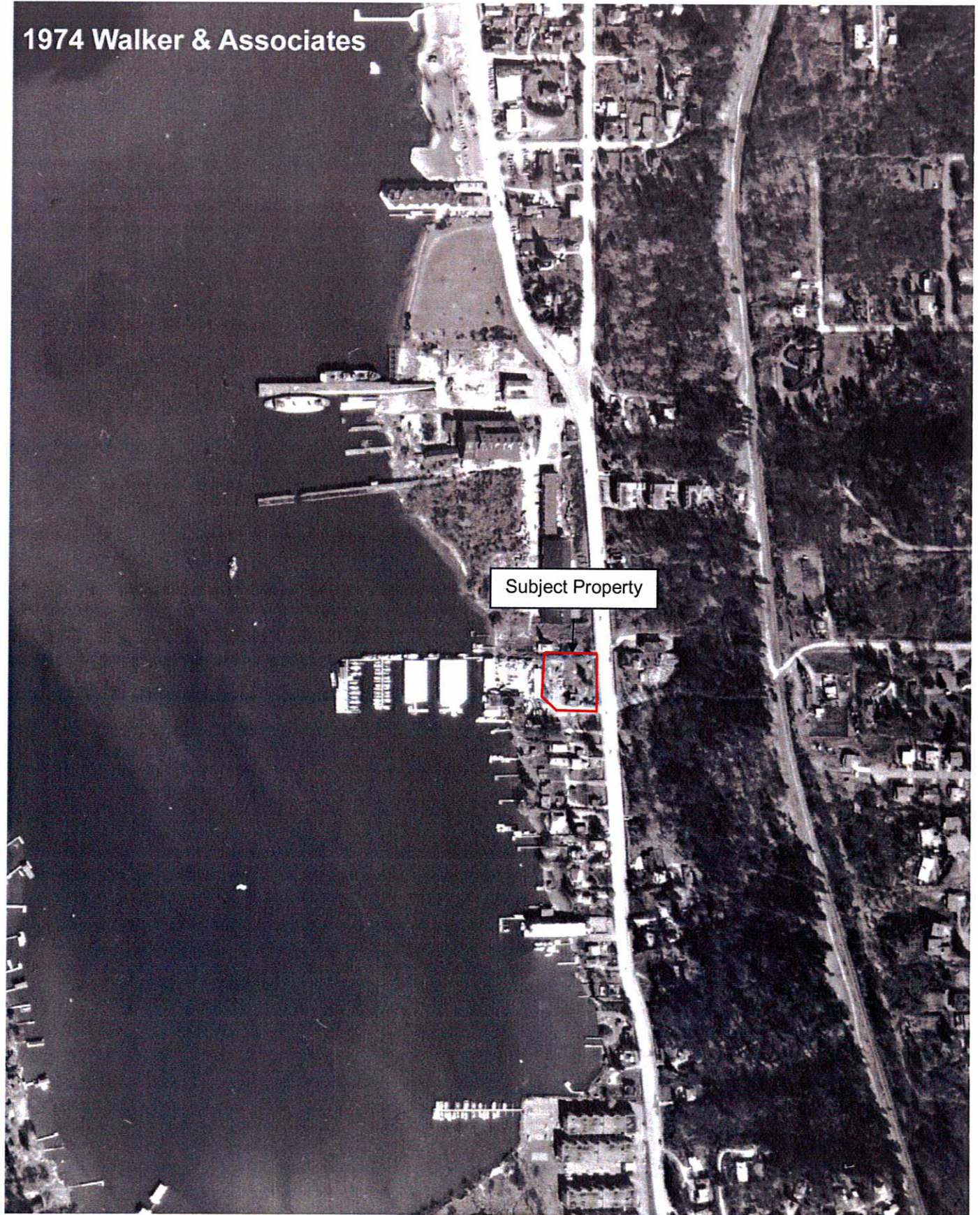
1946



1956 Walker & Associates



1974 Walker & Associates



Subject Property



Date: May 23, 2006  
Drawn By: E. Rothman  
Chk By: R. Bixby  
SES Project No.: 0515-001  
File ID: 515-1 1974 Aerial

Yarrow Bay Marina – Eastern Parcel  
5207 Lake Washington Boulevard  
Kirkland, Washington

**Aerial Photograph**  
**1974**

# **APPENDIX A**

## **Copies of Supporting Documents**

## Property Tax Information



**King County**

**Home**

**News**

**Services**

**Comments**

**Search**

*By law this information may not be used for commercial purposes.*

**Assessor Real Property Records:**

<table border="0"> <tr> <td>Taxpayer</td> <td><b>MARINA SUITES LLC</b></td> <td>Parcel Number</td> <td>1725059114</td> </tr> <tr> <td></td> <td></td> <td>Account Number</td> <td>172505911401</td> </tr> <tr> <td>Tax Year</td> <td>2005</td> <td>Levy Code</td> <td>1700</td> </tr> <tr> <td>Tax Status</td> <td><b>TAXABLE</b></td> <td>Taxable Value Reason</td> <td><b>NONE OR UNKNOWN</b></td> </tr> </table>	Taxpayer	<b>MARINA SUITES LLC</b>	Parcel Number	1725059114			Account Number	172505911401	Tax Year	2005	Levy Code	1700	Tax Status	<b>TAXABLE</b>	Taxable Value Reason	<b>NONE OR UNKNOWN</b>
Taxpayer	<b>MARINA SUITES LLC</b>	Parcel Number	1725059114													
		Account Number	172505911401													
Tax Year	2005	Levy Code	1700													
Tax Status	<b>TAXABLE</b>	Taxable Value Reason	<b>NONE OR UNKNOWN</b>													

Appraised Land Value	\$1,907,100	Taxable Land Value	\$1,907,100
Appraised Improvement Value	\$1,000	Taxable Improvement Value	\$1,000

<table border="0"> <tr> <td>Taxpayer</td> <td><b>MARINA SUITES LLC</b></td> <td>Parcel Number</td> <td>1725059114</td> </tr> <tr> <td></td> <td></td> <td>Account Number</td> <td>172505911401</td> </tr> <tr> <td>Tax Year</td> <td>2006</td> <td>Levy Code</td> <td>1700</td> </tr> <tr> <td>Tax Status</td> <td><b>TAXABLE</b></td> <td>Taxable Value Reason</td> <td><b>NONE OR UNKNOWN</b></td> </tr> </table>	Taxpayer	<b>MARINA SUITES LLC</b>	Parcel Number	1725059114			Account Number	172505911401	Tax Year	2006	Levy Code	1700	Tax Status	<b>TAXABLE</b>	Taxable Value Reason	<b>NONE OR UNKNOWN</b>
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		Account Number	172505911401													
Tax Year	2006	Levy Code	1700													
Tax Status	<b>TAXABLE</b>	Taxable Value Reason	<b>NONE OR UNKNOWN</b>													

Appraised Land Value	\$1,907,100	Taxable Land Value	\$1,907,100
Appraised Improvement Value	\$1,000	Taxable Improvement Value	\$1,000

**Assessor Property Sales Records:**

Tip: Use the [Recorders Office: Excise Tax Affidavits Report](#) to see more sales records details

Sale Date	9/24/2003	Sale Price	\$0
Seller Name	YARROW BAY YACHT BASIN AND MARINA LLC		
Buyer Name	MARINA SUITES LLC		
Sale Date	7/22/1998	Sale Price	\$0
Seller Name	WILCOX DONALD A		
Buyer Name	YARROW BAY YACHT BASIN & MARINA		
Sale Date	7/22/1998	Sale Price	\$0
Seller Name	WILCOX DONALD A		
Buyer Name	YAROW BAY YACHT BASIN & MARINA LLC		
Sale Date	7/22/1998	Sale Price	\$0
Seller Name	WILCOX ROSE MARIE		
Buyer Name	WILCOX DONALD A		
Sale Date	6/5/1998	Sale Price	\$0
Seller Name	WILCOX ROSE MARIE		



Buyer Name	WILCOX DONALD A
------------	-----------------

**Assessor Parcel Records:**

District Name	KIRKLAND		
Property Name	YARROW BAY MARINA	Property Type	COMMERCIAL
Plat Name		Present Use	Marina
Plat Block		Water System	WATER DISTRICT
Plat Lot		Sewer System	PUBLIC
Lot Area	38,143 SqFt (0.88 acres)	Access	PUBLIC
Section/Township/Range	NW 17 25 5	Street Surface	PAVED

**Assessor Legal Description Records:**

Account Number	172505911401	Record Number	01 - 06
Legal Description	172505 114 PORTION OF S HALF OF S HALF OF GOVT LOT 2 IN NW QTR STR 17-25-05 DAF: COMM AT INTERSECTION OF NORTH LINE SD SOUTH HALF OF SOUTH HALF & WLY MGN OF LAKE WASHINGTON BLVD NE TH ALG SD MGN S 03-09-47 E 75 FT TO TPOB TH CONTG ALG SD MGN S 03-09-47 E 220.32 FT TH N88-52-05 W 135 FT TH N 43-51-02 W 75.46 FT TH N 01-08-58 E 166.38 FT TO SOUTH LINE OF TRACT DEEDED TO G.A. & E.M. DAHLSTROM BY DEED REC NO 2980236 TH ALG SD SOUTH LINE S 88-51-02 E 171.79 FT TO TPOB -- AKA LOT 1 CITY OF KIRKLAND ALTERATION OF LOT LINE NO LL-97-57 REC NO 9707160998		

**Assessor Commercial Building Records:**

Address	5207 LAKE WASHINGTON BL 98033		
Building Number	1	Building Quality	LOW to AVERAGE
Number of Buildings	1	Building Description	YARROW BAY MARINA
Year Built	1958	Construction Class	WOOD FRAME
Gross SqFt	4620	Shape	Rect or Slight Irreg
Net SqFt	4620	Sprinklers	N
Stories	2	Elevators	
Heating System	ELECTRIC		
Predominant Use	RETAIL STORE (353)		

Building Number	2	Building Quality	LOW COST
-----------------	---	------------------	----------

Number of Buildings	1	Building Description	SHOP
Year Built	1960	Construction Class	WOOD FRAME
Gross SqFt	1600	Shape	Rect or Slight Irreg
Net SqFt	1600	Sprinklers	N
Stories	1	Elevators	
Heating System	NO HEAT		
Predominant Use	GARAGE, STORAGE (326)		

This report was generated: 5/23/2006 4:46:06 PM

Related on-line reports:

<a href="#">King County GIS: Property information FAQ</a>
<a href="#">King County Assessor: Submit a request to correct this information</a>
<a href="#">DDES: Permit Applications Report</a>
<a href="#">King County: Districts and Development Conditions Report</a>
<a href="#">King County Assessor: eReal Property Report (PDF format requires Acrobat)</a>
<a href="#">King County Assessor: Quarter Section Map Report (PDF format requires Acrobat)</a>
<a href="#">King County Treasury Operations: Property Tax Information</a>
<a href="#">Recorders Office: Excise Tax Affidavits Report</a>
<a href="#">Recorders Office: Scanned images of plats, surveys, and other map documents</a>

Enter a 10 digit Parcel Number:

or Enter an address:

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# Permit Information



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  - by Neighborhood
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- Parcels
  - Map Viewer

## Permit Status

The information below summarizes the case you selected. Scroll through the case details scroll bar at the right edge of the browser window or go directly to the case **Documents, Conditions, or Fees.**

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- Instructions
- Contact Us
- What is a Permit?
- What does Status mean?
- Staff Initials/Names
- Related Links
- Permit Timeline Reports

0.00

### INFORMATION ON CASE SEP06-00004

<p><b>Status:</b> Issued</p> <p><b>Name:</b> PHIL GOLDENMAN</p> <p><b>Address:</b> 5201 LAKE WASHINGTON BLVD NE</p> <p><b>Aerial Map:</b> 5201 LAKE WASHINGTON BLVD NE</p> <p><b>Application Date:</b> January 20, 2006</p> <p><b>Parcel:</b> 172505-9114</p>	<p><b>Description:</b></p> <p>Construct a new 55,000 and 7,000 square foot M The existing Yarrow Bay proposed to be demolist operations which include repair, and rentals woukd proposal also includes a an existing pier to provik moorage spaces.</p>
---	---

**Assigned Planner:** SAC

Go To ...

- [MyBuildingPermit.com](#)
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  - [City Web Page](#)
  - [Customer Survey](#)
  - [Municipal Code](#)
  - [Zoning Code](#)
  - [Comprehensive Plan](#)
- [State of Washington](#)
  - [State Web Page](#)
  - [Revised Code](#)
  - [Administrative Code](#)

### ACTIVITY ON CASE SEP06-00004 REVIEW - PUBLIC WORKS

<p><b>City Staff:</b></p> <p><b>Notes:</b></p>	<p><b>Status:</b></p>	<p><b>Dal</b></p>
--	-----------------------	-------------------

### APPLICATION RECEIVED

<p><b>City Staff:</b> WDB</p> <p><b>Notes:</b></p>	<p><b>Status:</b></p>	<p><b>Dal</b></p>
--	-----------------------	-------------------

### SEPA SUBMITTAL COMPLETE

<p><b>City Staff:</b> SAC</p> <p><b>Notes:</b></p>	<p><b>Status:</b> DONE</p>	<p><b>Dal</b></p>
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### MITIGATION LETTER TO APPLIC

<p><b>City Staff:</b> SAC</p> <p><b>Notes:</b></p>	<p><b>Status:</b> DONE</p>	<p><b>Dal</b></p>
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**ISSUE MDNS- COMMENT AND APPEAL**

City Staff: SAC

Status: DONE

Dat

Notes:

**INSPECTIONS ON CASE SEP06-00004**

City Staff:

Status:

I

Notes:

***There are no inspections on this case.***

0.00

**CONDITIONS ON CASE SEP06-00004**

1. Designate at least 34 parking spaces for the marina use at all times.
2. Designate at least 21 parking spaces near the office building employee entrances for carpool vehicles initially and more as required following Commute Trip Reduction surveys.
3. Provide a covered secured bicycle rack for at least six bikes.
4. Provide a commuter information center located in a prominent location within the building to transit schedules and information on commute options and promotions
5. Construct a driveway that provides a 14 foot entering lane and two 12 foot exiting lanes with island separating ingress and egress.
6. Install a guard rail/barrier between the driveway and the pedestrian path per AASHTO guide
7. Prior to issuance of a building permit for the in-water or over-water structures, the applicant plan describing how the proposed BMPs will be incorporated into the marina operations. This plan shall include, and/or other materials. The plans shall include, at a minimum, the following elements:
  - a. A spill prevention and containment plan as recommended by the Best Management Practices (Ecology, 1998). The plan shall address bilge water discharge, hazardous waste, waste oil and management, and spill prevention and response.
  - b. A site plan showing the location, layout, and a mock-up of the informational signs suggested in the Best Management Practices for Marina Operators (Ecology, 1998). This shall be included on a sheet and submitted with the permit application.
  - c. A copy of a proposed moorage agreement for the facility including the various notices and conditions recommended by the Best Management Practices for Marina Operators (Ecology, 1998).
8. The applicant shall provide full containment during construction to control sediment transport from the construction area.
9. No release of oils, hydraulic fluids, fuels, paints, solvents, or other hazardous materials shall be allowed. Accidental spill or discharge containment shall take precedence over other work on the site.
10. Prior to issuance of a building permit for the in-water or over-water structures, the applicant shall obtain all other applicable permits including additional federal and state mitigation requirements, if any. This includes the National Pollution Discharge Elimination System (NPDES) (or letters of exemption, if applicable), and letters of concurrency and/or a Section 10 incidental take statement from the NMFS and USFWS.
11. Prior to issuance of a land surface modification or building permit for the upland development, the applicant shall submit a copy of the National Pollution Discharge Elimination System (NPDES), if required.
12. Prior to final inspection of building permits for the in-water or over-water structures, the applicant shall:
  - a. Have all public information identified in the BMP's in place, including approved signs, brochures, etc.
  - b. Complete installation of the approved shoreline restoration plan and submit to the Planning Department a financial security device along with a cost estimate from a qualified biologist, to cover 100 percent of the monitoring and maintenance activities that will need to be done to meet the goals of the mitigation plan. The estimate must include an inflation rate. The cost estimate must be approved by the City's biologist consultant site visits, reports to the Planning Department, and the cost of any vegetation removal. The estimate must include an inflation rate. The cost estimate must be approved by the City's biologist consultant.
13. Prior to issuance of a building permit or land surface modification, the owners shall submit

Hazardous Material Study (or Phase I environmental assessment) to the City for review, together with a hazardous substance discovered on the site has been reported to the Washington State Department of Ecology in accordance with the provisions of the Model Toxics Control Act (MCTA). The applicant is responsible for ensuring that any cleanup occurs in compliance with provisions established in the MCTA. If any cleanup is required, the applicant shall submit evidence (e.g. a "No Further Action" letter from the Department of Ecology) that the required cleanup work has been completed at the site.

14. Prior to issuance of a building permit for relocation of the underground storage tank (UST), the applicant shall ensure that any state or federal requirements for USTs have been met, including notification to the Department of Ecology.

15. Prior to issuance of a building permit for the marina services building, the applicant shall submit a spill management plan which shall include the location of spill clean-up and containment materials in accordance with the Best Management Practices for Marina Operators (Ecology, 1998).

16. All exterior building mounted and ground mounted light fixtures for open air parking areas shall use "fully shielded cut off" fixtures as defined by the Illuminating Engineering Society of North America. Appropriate measures to conceal the light source from adjoining uses. Manufacturer specific data including photometric data shall be included with lighting plans.

17. The maximum mounting height of ground mounted light fixtures in open air parking areas shall be 20'. Height of light fixtures shall be measured from the finished floor or the finished grade to the bottom of the light bulb fixture.

18. All exterior lighting shall be turned off after business hours or 10:00 pm, whichever is earlier, for site security. Outdoor lighting used for security purposes or to illuminate walkways, roadways, and building entrances may remain on after 10:00 p.m. provided the following are met:

- a. Light fixtures are mounted to a maximum of 12' high, and
- b. Site illumination does not exceed a uniformity ratio maximum of 15: 1, vertical illumination luminance of .5 fc.

19. Mirrored glass may not be used on any exterior surface which is visible from any area beyond the site.

0.00

**FEES ON CASE SEP06-00004**

Item	Fee Amount
Env Review Fee	\$2,739.20

**DOWNLOADABLE DOCUMENTS FOR CASE SEP06-00004**

Document (click to view)	Size (Bytes)	Last Revisi
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*No downloadable documents were found for this permit*

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Use this page to view the details of the selected case.

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Version: 3.1.1.20030408.02

123 Fifth Avenue Kirkland, Washington 98033 \* 425-587-3000 \* TTY/TTD 425-587-3111  
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# U.S. Environmental Protection Agency Facility Registry System (FRS)

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## Facility Detail Report

Report  
an  
Error

Facility Name:	YARROW BAY YACHT SALES & SERVICE
Location Address:	5207 LAKE WASHINGTON BOULEVARD NE
Supplemental Address:	5207 LK WASHINGTON BLVD NE
City Name:	KIRKLAND
State	WA
County Name:	KING
ZIP/Postal Code:	98033
EPA Region:	10
Congressional District Number:	02
Legislative District Number:	NW
HUC Code:	17110019
Federal Facility:	NO
Tribal Land :	NO
Latitude:	47.6557
Longitude:	-122.205
Method:	
Reference Point Description:	
Duns Number:	004908620
Registry ID:	110009766636

Map this facility

## Environmental Interests

Information System	Information System ID	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
PCS	WAG030085	NPDES NON-MAJOR	NPDES PERMIT	04/24/1997	
PCS	WAG030086	NPDES NON-MAJOR	NPDES PERMIT	08/11/1993	
RCRAINFO	WAD988493961	CESQG	NOTIFICATION (RCRA)	03/09/2004	

WA-DOEFSIS	2486 EXIT Disclaimer	STATE MASTER	WA-DOEFSIS		TOXICS-REMEDIAL ACTION PLAN MONITORING
WA-DOEFSIS	33911356 EXIT Disclaimer	STATE MASTER	WA-DOEFSIS		HAZWASTE-WAD988493961 CESQG TOXICS-100973 LEAKING STORAGE TANK TOXICS-100973 UNDERGROUND STORAGE TANK PROGRAM WATQUAL-WAG030085 NPDES PERMIT

### Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
CONTACT/GENERAL	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033	PCS
CONTACT/GENERAL	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	RCRAINFO
CONTACT/GENERAL	949 14TH ST	EVERETT	WA	98201	PCS
CONTACT/OPERATOR	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033	PCS
CONTACT/OPERATOR	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	RCRAINFO
CONTACT/OPERATOR	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	WA-DOEFSIS
CONTACT/OPERATOR	949 14TH ST	EVERETT	WA	98201	PCS
CONTACT/OWNER	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	RCRAINFO
CONTACT/OWNER	5207 LAKE WASHINGTON BLVD NE		WA	98033	PCS
CONTACT/OWNER	949 14TH ST	EVERETT	WA	98201	PCS
CONTACT/REGULATORY	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	RCRAINFO
	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033	WA-DOEFSIS
	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	WA-DOEFSIS

### NAICS Codes

Data Source	NAICS Code	Description	Primary
WA-DOEFSIS	071393		

RCRAINFO	71393		
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## SIC Codes

Data Source	SIC Code	Description	Primary
PCS	0241	DAIRY FARMS	
PCS	0241	DAIRY FARMS	
WA-DOEFSIS	3732	BOAT BUILDING AND REPAIRING	
WA-DOEFSIS	4493	MARINAS	
WA-DOEFSIS	4493	MARINAS	

## Contacts

Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
COGNIZANT OFFICIAL	DENNIS BORTKO	4258226066	PCS	
COGNIZANT OFFICIAL	BRIAN BUCHANAN	4252526974	PCS	
CONTACT/OPERATOR	DENNIS BORTKO	(425) 882-6066	WA-DOEFSIS	<a href="#">View</a>
CONTACT/REGULATORY	DENNIS BORTKO	4258826066	RCRAINFO	<a href="#">View</a>

## Organizations

Affiliation Type	Name	DUNS Number	Information System	Mailing Address
CONTACT/OPERATOR	DENNIS BORTKO		RCRAINFO	<a href="#">View</a>
CONTACT/OPERATOR	YARROW BAY YACHT SALES AND SER		PCS	<a href="#">View</a>
CONTACT/OPERATOR	B AND B MARINE SERVICES LLC		PCS	<a href="#">View</a>
CONTACT/OWNER	YARROW BAY YACHT SALES SVCS		RCRAINFO	<a href="#">View</a>
CONTACT/OWNER	B AND B MARINE SERVICES LLC		PCS	<a href="#">View</a>
CONTACT/OWNER	YARROW BAY YACHT SALES AND SER		PCS	<a href="#">View</a>

## Alternative Names

Alternative Name	Source of Data
B AND B MARINE SERVICES LLC	NPDES PERMIT
SANGER MARINE	NPDES PERMIT
YARROW BAY MARINA	WA-DOEFSIS
YARROW BAY MARINA SEDIMENTS	WA-DOEFSIS

Query executed on: MAY-31-2006

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# U.S. Environmental Protection Agency Water Discharge Permits (PCS)

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## Detailed Reports



Results are based on data extracted on MAY-21-2006

### Facility

<b><u>FACILITY NAME (1) :</u></b>	YARROW BAY YACHT SALES AND SVC	<b><u>NPDES :</u></b>	WAG030085
<b><u>FACILITY NAME (2) :</u></b>			
<b><u>STREET 1 :</u></b>	5207 LAKE WASHINGTON BLVD NE	<b><u>SIC CODE :</u></b>	0241 = DAIRY FARMS
<b><u>CITY :</u></b>		<b><u>MAJOR / MINOR :</u></b>	
<b><u>COUNTY NAME :</u></b>	KING	<b><u>TYPE OF OWNERSHIP :</u></b>	PRI = PRIVATE
<b><u>STATE :</u></b>	WA	<b><u>INDUSTRY CLASS :</u></b>	R
<b><u>ZIP CODE :</u></b>	98033	<b><u>ACTIVITY STATUS :</u></b>	A = Active
<b><u>REGION :</u></b>	10	<b><u>INACTIVE DATE :</u></b>	02-NOV-2010
<b><u>LATITUDE :</u></b>	+4739210		
<b><u>LONGITUDE :</u></b>	-12212120	<b><u>TYPE OF PERMIT ISSUED :</u></b>	S = STATE
<b><u>LAT/LON CODE OF ACCURACY :</u></b>	B = 3 METERS	<b><u>PERMIT ISSUED DATE :</u></b>	08-DEC-1997
<b><u>LAT/LON METHOD :</u></b>	A = MAP INTERPOLATION	<b><u>PERMIT EXPIRED DATE :</u></b>	02-NOV-2010
<b><u>LAT/LON SCALE :</u></b>	3 = 24,000	<b><u>ORIGINAL PERMIT ISSUE DATE :</u></b>	11-AUG-1993
<b><u>LAT/LON DATUM :</u></b>	1 = NAD27		
<b><u>LAT/LON DESCRIPTION :</u></b>	02099		
<b><u>USGS HYDRO BASIN CODE :</u></b>		<b><u>STREAM SEGMENT :</u></b>	
<b><u>FLOW :</u></b>		<b><u>MILEAGE IND :</u></b>	
<b><u>RECEIVING STREAM CLASS CODE :</u></b>		<b><u>FEDERAL_GRANT_IND :</u></b>	
<b><u>RECEIVING WATERS :</u></b>		<b><u>FINAL LIMITS IND :</u></b>	F = FINAL
<b><u>PRETREATMENT CODE :</u></b>			
<b><u>SLUDGE INDICATOR :</u></b>		<b><u>SLUDGE CLASS FAC IND :</u></b>	
<b><u>SLUDGE RELATED PERMIT NUM :</u></b>		<b><u>ANNUAL DRY SLUDGE PROD :</u></b>	
<b><u>MAILING NAME :</u></b>	YARROW BAY YACHT SALES AND SER		
<b><u>MAILING STREET (1) :</u></b>	5207 LAKE WASHINGTON BLVD NE	<b><u>MAILING STREET (2) :</u></b>	
<b><u>MAILING CITY :</u></b>	KIRKLAND	<b><u>MAILING STATE :</u></b>	WA

**MAILING ZIP CODE :** 98033

**SLUDGE COMMERCIAL HANDLER :**

**SLUDGE HANDLER STREET (1) :**

**SLUDGE HANDLER CITY :**

**SLUDGE HANDLER ZIP CODE :**

**COGNIZANT OFFICIAL :** DENNIS BORTKO

**SLUDGE HANDLER STREET (2) :**

**SLUDGE HANDLER STATE :**

**COGNIZANT OFFICIAL TEL :** 425-822-6066

### Permit Documents

**FACILITY NAME (1) :** YARROW BAY YACHT SALES AND SVC **NPDES :** WAG030085

**FACILITY NAME (2) :**

No Permit Documents Found.

### Permit Tracking

**FACILITY NAME (1) :** YARROW BAY YACHT SALES AND SVC

**NPDES :** WAG030085

**FACILITY NAME (2) :**

**PERMIT ISSUED BY :** S = STATE

**PERMIT ISSUED DATE :** 08-DEC-1997

**ORIGINAL DATE OF ISSUE :** 11-AUG-1993

**PERMIT EXPIRED DATE :** 02-NOV-2010

**Permit Tracking Events:**

EVENT CODE	EVENT DESCRIPTION	ACTUAL DATE
P5099	PERMIT EXPIRED	02-NOV-2010
P4099	PERMIT ISSUED	08-DEC-1997
P1099	APPLICATION RECEIVED	24-APR-1997

### Inspections

**FACILITY NAME (1) :** YARROW BAY YACHT SALES AND SVC **NPDES :** WAG030085

**FACILITY NAME (2) :**

No Inspections Found.

## Outfalls/Pipe Schedules

**FACILITY NAME (1)** : YARROW BAY YACHT SALES AND SVC **NPDES** : WAG030085

**FACILITY NAME (2)** :

No PCS Pipe Schedule Information Found.

---

## Measurements and Violations

**FACILITY NAME (1)** : YARROW BAY YACHT SALES AND SVC **NPDES** : WAG030085

**FACILITY NAME (2)** :

No PCS Measurements and Violations Information Found.

---

## Enforcement Actions

**FACILITY NAME (1)** : YARROW BAY YACHT SALES AND SVC **NPDES** : WAG030085

**FACILITY NAME (2)** :

No PCS Enforcement Actions Found.

---

## Evidentiary Hearings

**FACILITY NAME (1)** : YARROW BAY YACHT SALES AND SVC **NPDES** : WAG030085

**FACILITY NAME (2)** :

No PCS Evidentiary Hearing Information Found.

---

## Pretreatment Inspections/Audits

**FACILITY NAME (1)** : YARROW BAY YACHT SALES AND SVC **NPDES** : WAG030085

**FACILITY NAME (2)** :

No PCS Pretreatment Inspections Found.

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Last updated on Wednesday, May 31st, 2006  
[http://oaspub.epa.gov/enviro/pcs\\_det\\_reports.pcs\\_tst](http://oaspub.epa.gov/enviro/pcs_det_reports.pcs_tst)





# U.S. Environmental Protection Agency Resource Conservation and Recovery Act (RCRAInfo)

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[EPA Home](#) > [Envirofacts](#) > [RCRAInfo](#) > Query Results



## Query Results



**Consolidated facility information (from multiple EPA systems) was searched to select facilities**

**Handler ID:** Beginning With: WAD988493961

Results are based on data extracted on MAY-22-2006

**Note:** Click on the underlined CORPORATE LINK value for links to that company's environmental web pages. Click on the underlined MAPPING INFO value to obtain mapping information for the facility.

[Go To Bottom Of The Page](#)

<u>HANDLER NAME:</u>	YARROW BAY YACHT SALES & SERVICE	<u>HANDLER ID:</u>	WAD988493961
<u>STREET:</u>	5207 LAKE WASHINGTON BOULEVARD NE	<u>FACILITY INFORMATION:</u>	<a href="#">View Facility Information</a>
<u>CITY:</u>	KIRKLAND	<u>CORPORATE LINK:</u>	No
<u>STATE:</u>	WA	<u>COUNTY:</u>	KING
<u>ZIP CODE:</u>	98033	<u>MAPPING INFO:</u>	<a href="#">MAP</a>
<u>EPA REGION:</u>	10		

CONTACT INFORMATION

NAME	STREET	CITY	STATE	ZIP CODE	PHONE	TYPE OF CONTACT
DENNIS BORTKO	5207 LAKE WASHINGTON BLVD NE	KIRKLAND	WA	98033-7321	(425)882-6066	Public

**LIST OF NAICS CODES AND DESCRIPTIONS**

NAICS CODE	NAICS DESCRIPTION
71393	Marinas

[Go To Top Of The Page](#)

**Total Number of Facilities Displayed: 1**

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Last updated on Wednesday, May 31st, 2006  
[http://oaspub.epa.gov/enviro/fii\\_master.fii\\_retrieve](http://oaspub.epa.gov/enviro/fii_master.fii_retrieve)



# U.S. Environmental Protection Agency

## Envirofacts Data Warehouse

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Envirofacts

## MultiSystem Report



**YARROW BAY YACHT SALES & SERVICE  
5207 LAKE WASHINGTON BOULEVARD NE  
KIRKLAND, WA 98033**

[Map this facility](#)

[EPA Facility Information](#)

*This query was executed on MAY-31-2006*

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### Water Discharge Permit Information (PCS)

**NPDES:** WAG030085

**SIC CODE:** 0241

**SIC DESCRIPTION:** DAIRY FARMS

The current PCS database does not have permitted discharge data for this facility.

Additional Information can be obtained from Water Discharge Permit Information  Query.

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### Water Discharge Permit Information (PCS)

**NPDES:** WAG030086

**SIC CODE:** 0241

**SIC DESCRIPTION:** DAIRY FARMS

The current PCS database does not have permitted discharge data for this facility.

Additional Information can be obtained from Water Discharge Permit Information  Query.

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**RCRAInfo****HANDLER ID:** WAD988493961**LIST OF NAICS CODES AND DESCRIPTIONS**

NAICS CODE	NAICS DESCRIPTION
71393	Marinas

**HANDLER / FACILITY CLASSIFICATION**

HANDLER TYPE
Conditionally Exempt Small Generator

No Process Information is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information Query.

[RCRAInfo](#)

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Last updated on Wednesday, May 31st, 2006  
[http://oaspub.epa.gov/enviro/multisys2.get\\_list](http://oaspub.epa.gov/enviro/multisys2.get_list)



# U.S. Environmental Protection Agency Water Discharge Permits (PCS)

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[EPA Home](#) > [Envirofacts](#) > PCS



## Detailed Reports

Report  
an  
Error

Results are based on data extracted on MAY-21-2006

### Facility

<b><u>FACILITY NAME (1) :</u></b>	B AND B MARINE SERVICES LLC	<b><u>NPDES :</u></b>	WAG030086
<b><u>FACILITY NAME (2) :</u></b>		<b><u>BUD PAXMAN</u></b>	
<b><u>STREET 1 :</u></b>	949 14TH ST	<b><u>SIC CODE :</u></b>	0241 = DAIRY FARMS
<b><u>CITY :</u></b>	KIRKLAND	<b><u>MAJOR / MINOR :</u></b>	
<b><u>COUNTY NAME :</u></b>	SNOHOMISH	<b><u>TYPE OF OWNERSHIP :</u></b>	PRI = PRIVATE
<b><u>STATE :</u></b>	WA	<b><u>INDUSTRY CLASS :</u></b>	R
<b><u>ZIP CODE :</u></b>	98201	<b><u>ACTIVITY STATUS :</u></b>	A = Active
<b><u>REGION :</u></b>	10	<b><u>INACTIVE DATE :</u></b>	02-NOV-2010
<b><u>LATITUDE :</u></b>	+4759570		
<b><u>LONGITUDE :</u></b>	-12212530	<b><u>TYPE OF PERMIT ISSUED :</u></b>	S = STATE
<b><u>LAT/LON CODE OF ACCURACY :</u></b>	B = 3 METERS	<b><u>PERMIT ISSUED DATE :</u></b>	08-DEC-1997
<b><u>LAT/LON METHOD :</u></b>	A = MAP INTERPOLATION	<b><u>PERMIT EXPIRED DATE :</u></b>	02-NOV-2010
<b><u>LAT/LON SCALE :</u></b>	3 = 24,000	<b><u>ORIGINAL PERMIT ISSUE DATE :</u></b>	11-AUG-1993
<b><u>LAT/LON DATUM :</u></b>	1 = NAD27		
<b><u>LAT/LON DESCRIPTION :</u></b>	02099	<b><u>STREAM SEGMENT :</u></b>	
<b><u>USGS HYDRO BASIN CODE :</u></b>		<b><u>MILEAGE IND :</u></b>	
<b><u>FLOW :</u></b>		<b><u>FEDERAL GRANT IND :</u></b>	
<b><u>RECEIVING STREAM CLASS CODE :</u></b>		<b><u>FINAL LIMITS IND :</u></b>	F = FINAL
<b><u>RECEIVING WATERS :</u></b>	LAKE WASHINGTON		
<b><u>PRETREATMENT CODE :</u></b>		<b><u>SLUDGE CLASS FAC IND :</u></b>	
<b><u>SLUDGE INDICATOR :</u></b>		<b><u>ANNUAL DRY SLUDGE PROD :</u></b>	
<b><u>SLUDGE RELATED PERMIT NUM :</u></b>			
<b><u>MAILING NAME :</u></b>	B AND B MARINE SERVICES LLC		



No Inspections Found.

### Outfalls/Pipe Schedules

<b><u>FACILITY NAME (1):</u></b>	B AND B MARINE SERVICES LLC	<b><u>NPDES :</u></b>	WAG030086
<b><u>FACILITY NAME (2):</u></b>	BUD PAXMAN	<b><u>OUTFALL TYPE :</u></b>	R = STORMWATER
<b><u>PIPE NUMBER :</u></b>	500	<b><u>ACTIVITY STATUS:</u></b>	A = ACTIVE
<b><u>REPORT DESIGNATOR :</u></b>	A	<b><u>LATITUDE:</u></b>	
<b><u>PIPE SET QUALIFIER :</u></b>	9	<b><u>LONGITUDE :</u></b>	
<b><u>INACTIVE DATE :</u></b>	30-NOV-2010	<b><u>LAT/LON ACCURACY :</u></b>	
<b><u>INIT LIMITS START DATE :</u></b>		<b><u>LAT/LON METHOD :</u></b>	
<b><u>INIT LIMITS END DATE :</u></b>		<b><u>LAT/LON SCALE :</u></b>	
<b><u>INTERIM LIMITS START DATE :</u></b>		<b><u>LAT/LON DATUM :</u></b>	
<b><u>INTERIM LIMITS END DATE :</u></b>		<b><u>LAT/LON DESCRIPTION :</u></b>	
<b><u>FINAL LIMITS START DATE :</u></b>	01-JAN-2006	<b><u>USGS HYDRO BASIN CODE :</u></b>	
<b><u>FINAL LIMITS END DATE :</u></b>	30-NOV-2010	<b><u>PIPE STREAM SEGMENT :</u></b>	
<b><u>INIT SUBM. DATE(EPA) :</u></b>		<b><u>RECEIVING STREAM CLASS CD :</u></b>	
<b><u>SUBMISSION UNITS (EPA) :</u></b>		<b><u>MILEAGE INDICATOR :</u></b>	
<b><u>UNITS IN EPA SUBM. PERIOD :</u></b>	0	<b><u>PIPE DESCRIPTION :</u></b>	FRESHWATER LAKE
<b><u>INIT SUBM. DATE (STATE) :</u></b>	15-FEB-2006		
<b><u>SUBMISSION UNITS (STATE) :</u></b>	M = MONTHS		
<b><u>UNITS IN STATE SUBM. PERIOD :</u></b>	1		
<b><u>INIT REPORTING DATE :</u></b>	01-JAN-2006		
<b><u>REPORTING UNITS :</u></b>	M = MONTHS		
<b><u>UNITS IN REPORTING PERIOD :</u></b>	1		

### Measurements and Violations

**FACILITY NAME (1):** B AND B MARINE SERVICES LLC **NPDES :** WAG030086  
**FACILITY NAME (2):** BUD PAXMAN

No PCS Measurements and Violations Information Found.

## Enforcement Actions

**FACILITY NAME (1)**: B AND B MARINE SERVICES LLC **NPDES** : WAG030086

**FACILITY NAME (2)**: BUD PAXMAN

No PCS Enforcement Actions Found.

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## Evidentiary Hearings

**FACILITY NAME (1)**: B AND B MARINE SERVICES LLC **NPDES** : WAG030086

**FACILITY NAME (2)**: BUD PAXMAN

No PCS Evidentiary Hearing Information Found.

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## Pretreatment Inspections/Audits

**FACILITY NAME (1)**: B AND B MARINE SERVICES LLC **NPDES** : WAG030086

**FACILITY NAME (2)**: BUD PAXMAN

No PCS Pretreatment Inspections Found.

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## Archives Information

FOLIO - 1074-4  
 PERMIT NO. 429  
 DATE 6-18-63

ADDITION Tax Lot (114) Legal on Back  
 Section 17 Twp. 25 Range 5 Evm. Block 114 Lot or Tract  
 Address Lawrence Staircases  
 5207 1/2 Wash Blvd NW

For Owner Wallace O. Nelson Architect Contractor  
 Condition of Exterior G Interior G Foundation G Floor Plan: Good Accept. Good

USE Garage  
 No. Stories 1  
 No. Stores  
 No. Rooms  
 Basement  
 No. Offices  
 No. Apartments  
 1 rm. 2 rm. 3 rm.  
 4 rm. 5 rm. 6 rm.

ROOF CONSTRUCTION  
 Frame Lam.   
 Mill Construction   
 Rein. Concrete  
 No. Trusses  
 Wood  Steel  
 ROOFING MATERIAL  
 Tar and Gravel  
 Or Asph Shng

FLOOR FINISHES  
 Fir  Maple  
 Oak  2"x8" T&G  
 Lino.  3"x8" T&G  
 Cement  
 Terrazo  
 Rascolith  
 Tile  
 Or 2 1/2" DISK

Tile  Lino.   
 Baths  Fl.  Walls  
 Sq. Ft. Floors  
 Sq. Ft. Walls  
 Lin. Ft. Dr. Bds.  
 Sq. Ft. Floors  
 Sq. Ft. Walls  
 Lin. Ft. Dr. Bds.  
 Kit's  Fl.  Walls

PLUMBING  
 No. Fixtures  
 Toilets  
 Tub, Leg or Pans  
 Basins, Fed.  
 Sinks  
 Urinals  
 Showers (Tub) (Stall)  
 Laundry Trays  
 H. W. Tank Fl. Drains   
 Sprink. Sys. No. Hds.

TYPE OF CONSTRUCTION  
 Frame   
 Single  Double  
 Ordinary Masonry  
 Mill Construction   
 Class A Rein. Con.  
 Stru. Steel and Con.  
 Tile  Brick  
 Con.  Rein. Con.  
 Good  Med.  Cheap

Date Built: 1962 4 63  Finished  Unfinished  Remodeled  
 Effective Age \_\_\_\_\_ Years Future Life \_\_\_\_\_ Years  
 Dep. for Cond. \_\_\_\_\_ Dep. for Ob. \_\_\_\_\_ Dep. for Es. \_\_\_\_\_ Total \_\_\_\_\_



FOUNDATION  
 Mud Sills  
 Post and Pier  
 Brick  
 Concrete  
 Pile

BASEMENT  
 Full  %  
 Sub-Basement  
 Size 2 Garage  
 Garage  No. Cars  
 Floor  
 Plastered  
 Living Rooms  
 Service Rooms

Pass.  Freight  
 Auto.  Elec.  
 Man.  Hyd.  
 Man.   
 Hoists: Elec. Hyd.  
 Treated Piles, Timb  
 Untreated  
 Treated Piles only  
 Average Length  
 Paved  
 Knob & Tube  
 Flex. Cable  
 Conduit  
 Power Wiring  
 Range Wiring  
 No. Outlets

EXTERIOR WALL CONST.  
 Single  Double  
 2" x 4" Stud Walls  
 2" x 6" Stud Walls  
 Brick Walls  
 Brick with Pilasters  
 Concrete Walls  
 Con. with Pilasters  
 Tile Walls  
 Rein. Con. Skel.  
 Filler Walls  
 Laminated Walls

INTERIOR WALLS  
 Stud and Plaster  
 Lam.  Plastered  
 Plywood  
 Ceiled  
 Plaster Board  
 Painted  
 Stain  Varnish  
 Kalsomine  
 Whitewashed  
 Unfinished

G. H. GROUND FLOOR AREA Covered 26,786 sq. ft. 68719  
 TOTAL FLOOR AREA 33574

EXTERIOR FACING  
 Siding  Shingles  
 Shakes  Stucco  
 Brick Veneer  
 Stone  Cast S.  
 Terra Cotta  
 Struc. Glass  
 Trim

INTERIOR TRIM  
 Fir  
 Mah.  Oak  
 Metal  
 Doors  
 Windows  
 Stained  
 Varnished  
 Painted  
 Unfinished

FLOOR CONSTRUCTION  
 Joint Con. Size 8 x 10  
 O.C.  Jo Bridge   
 Mill Construction  
 Rein. Con.

Other Buildings	Construction	Floor	Roof	Stories	Dimensions	S. F. Area	Factor	Val
Garage								

Assessed Value  
 1960 21,500 BC 63  
 1961 22,350 BC 65  
 1967 24,400 BH 65  
 71 48,800

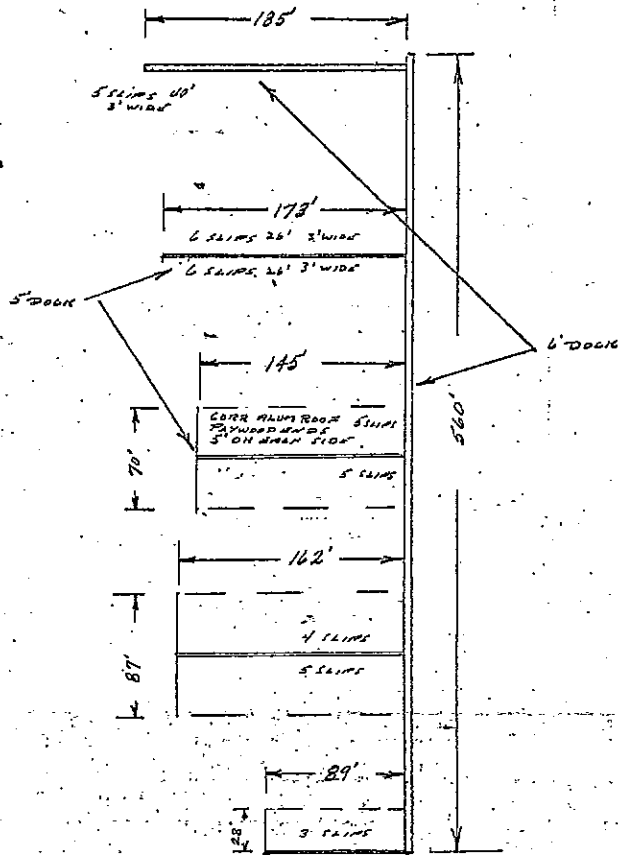
1967 roll  
 5/25/66

244.00  
 67.50  
 25.00  
 1.00  
 337.50

(114) - 8.50

(114) 329.00

DISTRICT 8074-17 ADDITION Tax Lot  
 Section 17 Twp. 25 Range 5 Ewn. Block Tract of Lot 114  
 PERMIT No. 929  
 DATE 6-18-62  
 Fee Owner WALLACE P. NELSON Address of Property LAKE WICH BUNGALOWS Architect



FOLIO 1074  
 PERMIT NO. 114

ADDITION TAX LOT  
 Section 19 Twp. 25 Range 5 Ewn. Block This Lot 114

DATE 5-20-29  
 Address 5209 LAKIN BLVD NE  
 ALBANY

Fee Owner W. F. M. Interior U. N. E. N. Foundation 9 Floor Plan: Good  
 Architect C. W. N. Accept

USE 2-1-29  
 No. Stories 12  
 No. Rooms 8  
 No. Apartments 1  
 1 rm. 2 rm. 3 rm.  
 4 rm. 5 rm. 6 rm.

ROOF CONSTRUCTION  
 Frame Lam.   
 Mill Construction   
 Rein. Concrete   
 No. Trusses   
 Wood  Steel   
 Roofing Material  
 Tar and Gravel

FLOOR FINISHES  
 Fir   
 Oak   
 Lino.   
 Cement   
 Terrazzo   
 Raecolith   
 Tile   
 Or.

Tile  Lino.   
 Baths  Pl.  Walls   
 Sp. Pl.  Floors   
 Sp. Pl.  Walls   
 Lin. Pl.  Dr. Bds.   
 Sp. Pl.  Floors   
 Sp. Pl.  Walls   
 Lin. Pl.  Dr. Bds.   
 K's  Pl.  Walls

PLUMBING  
 No. Fixtures 5  
 Toilets 2  
 Tub, Log or Pen. 2  
 Basins, Ped. 2  
 Sinks 1  
 Urinals 1  
 Showers (Tub) (Stall)   
 Laundry Trays   
 H. W. Tank Pl. Drains   
 Spark Sts. No.  Hfs.

TYPE OF CONSTRUCTION  
 Frame  Double  
 Single   
 Ordinary Masonry   
 Mill Construction   
 Class A Rein. Con.   
 Spec. Steel and Con.   
 Tile  Brick   
 Con.  Rein. Con.   
 Coal  Wood  Clean

FOUNDATION  
 Wash Sills   
 Post and Pier   
 Brick   
 Concrete   
 Pile

HEATING  
 Steam  Elec   
 Radiator Furnace   
 Gravity H. A.   
 Air Cond.  Fan   
 Suspended Gas, Hot-Water   
 Steam Heat   
 Hot Water   
 Oil Burner

Year 1929  
 Assessed Value 6750  
 1929 1934 1935  
 1936 1937 1938  
 1939 1940 1941  
 1942 1943 1944  
 1945 1946 1947  
 1948 1949 1950  
 1951 1952 1953  
 1954 1955 1956  
 1957 1958 1959  
 1960 1961 1962  
 1963 1964 1965  
 1966 1967 1968  
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 2071 2072 2073  
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 2083 2084 2085  
 2086 2087 2088  
 2089 2090 2091  
 2092 2093 2094  
 2095 2096 2097  
 2098 2099 2100

Unfinished  1963  
 Future Life  Remodeled  
 Date Built 1929  
 Effective Age 1963  
 Dep. for Est. 42%  
 Total 42%



BASEMENT  
 No.   
 No. Cars   
 No. Pools   
 No. Basins   
 No. Rooms   
 No. Baths   
 No. Stairs   
 No. Halls   
 No. Closets   
 No. Porches   
 No. Balconies   
 No. Terraces   
 No. Driveways   
 No. Garages   
 No. Paved   
 No. Sidewalks   
 No. Driveways   
 No. Porches   
 No. Balconies   
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 No. Balconies   
 No

FOLIO 8074 ADDITION THX LOT  
 Section 17 Twp. 25 Range 5 Ewm. Block \_\_\_\_\_ Lot or \_\_\_\_\_  
 PERMIT NO. 1 Tax Lot 114 Tract \_\_\_\_\_  
 DATE \_\_\_\_\_ Address 5207 LKUN BLVD. NE  
Blkg #2

Fee Owner \_\_\_\_\_  
 Condition of Exterior UNFIN

USE RESID RO \_\_\_\_\_  
 No. Stories \_\_\_\_\_  
 No. Stoops \_\_\_\_\_  
 No. Rooms 12  
 Basement \_\_\_\_\_  
 No. Offices 8  
 No. Apartments \_\_\_\_\_  
 1 rm.  2 rm.  3 rm.   
 4 rm.  5 rm.  6 rm.

TYPE OF CONSTRUCTION  
 Frame  
 Single  Double  
 Ordinary Masonry  
 Mill Construction  
 Class A Rein. Con.  
 Strn. Steel and Con.  
 Tile  Brick  
 Con.  Rein. Con.  
 Good  Med  Cheap

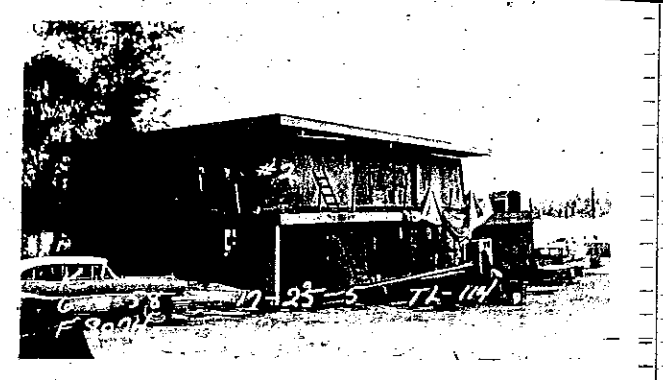
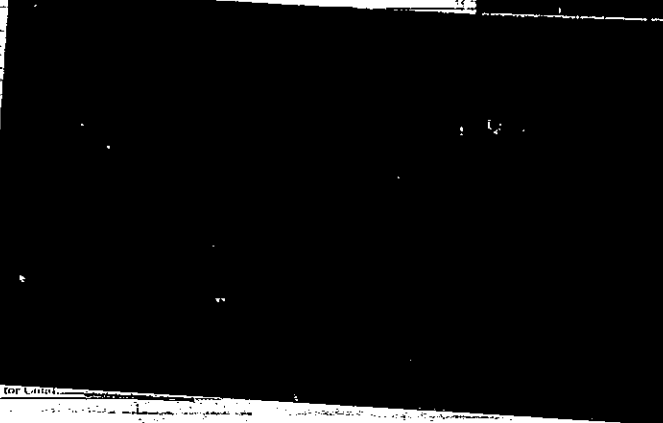
FOUNDATION  
 Mud Sills  
 Post and Pier  
 Brick  
 Concrete  
 Pile

BASMENT  
 Full  Part  
 Sub-Basement  
 Size \_\_\_\_\_  
 Garage  No. Cars \_\_\_\_\_  
 Plastered  
 Living Rooms  
 Service Rooms

EXTERIOR WALL CONST.  
 Single  Double  
 2" x 4" Stud Walls  
 2" x 6" Stud Walls  
 Brick Walls  
 Brick with Pilasters  
 Concrete Walls  
 Con. with Pilasters  
 Tile Walls  
 Rein. Con. Sidel.  
 Filler Walls  
 Laminated Walls

EXTERIOR FACING  
 Siding  Shingles  
 Shakes  Stucco  
 Swiss Veneer Plywood  
 Kind \_\_\_\_\_  
 Stone  Cast S.  
 Terra Cotta  
 Stone Glass  
 Trim

FLOOR CONSTRUCTION  
 Joint Con. Size 44 x 13  
 O.C. 3 1/2" In Bridg.   
 Mill Construction  
 Rein. Con. 1ST



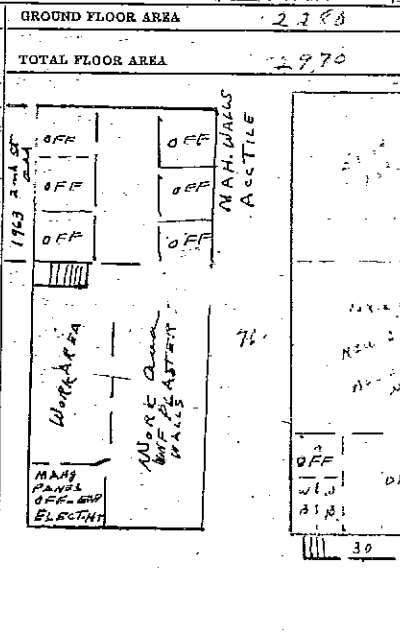
Auto.  Elec.  Untreated \_\_\_\_\_ Flex. Cable \_\_\_\_\_  
 Man.  Hyd. \_\_\_\_\_ Treated Piles only  Conduit \_\_\_\_\_  
 Man. \_\_\_\_\_ Average Length \_\_\_\_\_ Power Wiring \_\_\_\_\_  
 Paved \_\_\_\_\_ Range Wiring \_\_\_\_\_  
 Hoists: Elec. \_\_\_\_\_ Hyd. \_\_\_\_\_ No. Outlets \_\_\_\_\_

LUMBING  
 No. Fixtures \_\_\_\_\_  
 Toilets \_\_\_\_\_  
 Tub, Leg or Pan. \_\_\_\_\_  
 Basins, Ped. \_\_\_\_\_  
 Sinks \_\_\_\_\_  
 Grinabs \_\_\_\_\_  
 Showers (Tub) (Stall) \_\_\_\_\_  
 Laundry Trays \_\_\_\_\_  
 R. W. Tank Fl. Drains   
 Siphon. Sys. No. \_\_\_\_\_ Hds. \_\_\_\_\_

HEATING  
 Stone FLG  
 Pipeless Furnace  
 Base H. A.  
 Air Cond., Fan  
 Suspended Gas. Hot Water  
 Steam Heat  
 Hot Water  
 Oil Burner

Year	Assessed Value
1953	442 1000 00
1964	6750 00
71	13500

INTERIOR WALLS  
 Stud and Plaster  
 Linn.  Plastered  
 Plywood MANG  
 Ceiled  
 Plaster Board WPF  
 Painted  
 Stain  Varnish  
 Kalsomine  
 Whitewashed  
 Unfinished



Other Buildings	Construction	Floor	Roof	Stories	Dimensions	S. F. Area	Factor	Value	% Dep.	Depren.	Net Value
Garage											

District: 80748 2 Addition TL 114  
 Section 17 Twp. 25 Range 5 EWM. Block \_\_\_\_\_ Tract or Lot No. \_\_\_\_\_  
 Permit No. \_\_\_\_\_ Description \_\_\_\_\_  
 Date \_\_\_\_\_

3 Address of Property \_\_\_\_\_  
 4 Fee Owner \_\_\_\_\_  
 5 Architect \_\_\_\_\_  
 6 Original Building Cost \_\_\_\_\_  
 7 Condition of Exterior \_\_\_\_\_

**BUILDING**  
 One Family Dwelling  
 Two Family Dwelling  
 No. of Stories 4  
 No. of Rooms 12  
 Basement  
 First Floor  
 Second Floor  
 Third Floor  
 Attic

**INTERIOR WALLS**  
 Plaster  
 Plaster Board  
 Colotex  
 Plywood  
 Ceiled

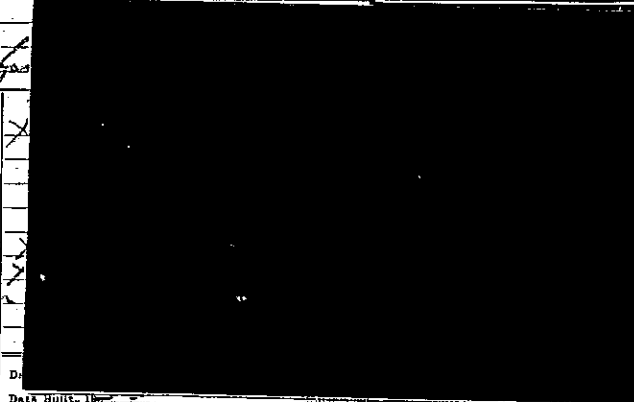
Open Studs  
 Painted  
 Kalsomine  
 Papered  
 Unfinished Walls

**FLOORS**  
 Hardwood  
 Fir  
 Concrete  
 Asphalt Tile  
 Shiplap

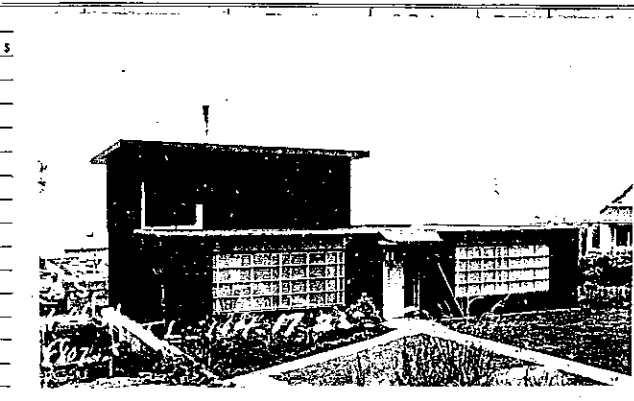
**FIREPLACE—No.**  
 Stems  
 Bsmt. 1st 2nd  
 Brick  
 Tile Face  
 Cobblestones  
 Unfinished

**INTERIOR TRIM**  
 Hardwood  
 Mahogany  
 Fir  
 Unfinished

**PLUMBING**  
 No. of Fixtures  
 Tub—Leg or Pem.  
 Toilets  
 Basin—Pedestal  
 Sink  
 Shower Stall  
 Hot Water Tank  
 Laundry Trays  
 None  
 Unfinished  
 Expensive  
 Good  
 Average  
 Cheap  
 D. S. Sewer Conn.



Date Built, 18...  
 Date Finished, 18 52 Rebuilt, 18... Remodeled, 18...  
 Estimated Age 11 Years Future Life... Years  
 Dep. for Cond. ... Dep. for O.B. ... Dep. for ES. ... Total 11%



**BASEMENT**  
 Full  
 Part  
 To first Floor Joist  
 Frame and Concrete  
 Cement Blocks  
 Concrete Floor

**HEATING**  
 Stove  
 Pipeless Furnace  
 Floor Furnace  
 Hot Air Furnace  
 Fan  
 Gas  
 Stoker  
 Pot Oil Burner  
 Pressure Oil Burner  
 Oil Burning Unit  
 Air Cond. Comp.  
 Radiant  
 Hot Water Association  
 Electric

**FOUNDATION**  
 Concrete... Thick  
 Cement Blocks  
 Stone or Brick  
 Wood Post Concrete Block

**ROOF**  
 Shingle  
 Shakes  
 Composition  
 Tile or Slate  
 Tar and Gravel  
 Tar Paper

**EXTRA FEATURES**  
 Cathedral Ceiling  
 Insulated

**FLOOR CONSTRUCTION**  
 1st Floor Joist 2x10x16  
 Bridged  
 Post Size 8x8  
 Beam Size 8x10

Rental per Month \$  
 Poor \_\_\_\_\_

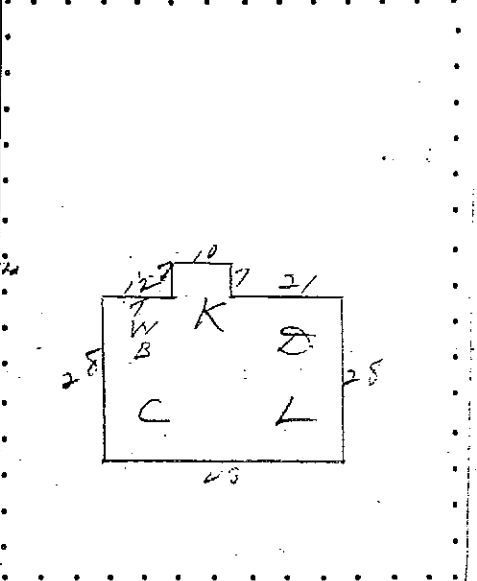
**EXTERIOR WALLS**  
 Boards and Batten  
 Shiplap # 7/2 2nd  
 Rustic  
 Cedar Siding  
 Shingles  
 Shakes 1st Floor  
 Stucco on Wire Lath  
 Brick Veneer  
 ALUMINUM on 2nd Floor  
 Composition  
 Stone  
 Concrete Block

**BUILT-INS**  
 Kitchen Floral  
 Closets

**CONSTRUCTION R-1-6**  
 Single  
 Double  
 Solid  
 Very Cheap 500  
 Cheap  
 Medium  
 Good  
 Special

Corner Joints  
**CEILING HEIGHT**  
 Basement 8 ft. in.  
 1st Floor 7 ft. in.  
 2nd Floor 7 ft. in.  
 3rd Floor 7 ft. in.  
 Attic Low High

**GROUND FLOOR AREA** 1274 Sq. Ft. SCALB  = 2 FL



Other Buildings	Construction	Floor	Roof	Sty.	Dimensions	S. F. Area	Factor	Value	% Dep.	Deprec.	Net Value
Garage	2' Deck				265	3600	6		Void		

District: **TL 114**  
 2 Addition Section: **17** Twp. **25** Range. **S** E.W.M. Block. Tract or Lot No.  
 Description: **TL 114**  
 Permit No. \_\_\_\_\_  
 Date \_\_\_\_\_

3 Address of Property \_\_\_\_\_  
 4 Fee Owner \_\_\_\_\_  
 5 Architect \_\_\_\_\_  
 6 Original Building Cost \$ \_\_\_\_\_  
 7 Condition of Exterior: **OK** Foundation: **OK** Estimated Rental per Month \$ \_\_\_\_\_  
 Accepted: \_\_\_\_\_

BUILDING	TILE	LINO	ATTIC	PORCHES	EXTERIOR WALLS
One Family Dwelling	<input checked="" type="checkbox"/> Floor-Wall	<input checked="" type="checkbox"/> Stairway	<input checked="" type="checkbox"/> One Story	Boards and Batten	
Two Family Dwelling	<input checked="" type="checkbox"/> Floor-Wall	<input type="checkbox"/> Opened	<input checked="" type="checkbox"/> Two Story	Shiplap	
No. of Stories	<input checked="" type="checkbox"/> Floor-Wall	<input type="checkbox"/> Finished	<input type="checkbox"/> Unroofed	Rustic	
No. of Rooms	<input checked="" type="checkbox"/> Floor-Wall	<input type="checkbox"/> Unfinished	<input type="checkbox"/> Brick and or Concrete	Cedar Siding	
Basement	<input checked="" type="checkbox"/> Floor-Wall	<input type="checkbox"/> Useful	<input checked="" type="checkbox"/> Cement Floor	Shingles	
First Floor	<input checked="" type="checkbox"/> Floor-Wall	<input type="checkbox"/> Dormers	<input type="checkbox"/> Recessed	Shakes	
Second Floor	<input checked="" type="checkbox"/> Floor-Wall	No. _____ Width _____	<input type="checkbox"/> Glassed	Stucco on Wire Lath	
Third Floor	<input checked="" type="checkbox"/> Kitchen Drain Board		<input type="checkbox"/> Enclosed	Brick Veneer	
Attic	<input type="checkbox"/> None			<b>ALUMINUM 2nd</b>	
	<input type="checkbox"/> Unfinished			Composition	

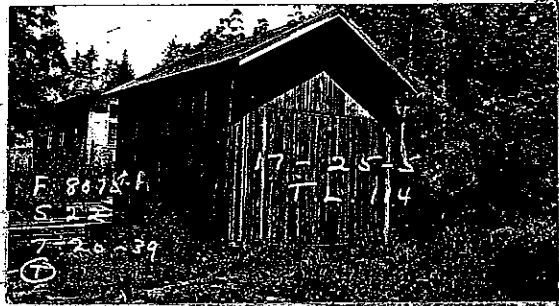
INTERIOR WALLS	BUILT-INS	CONSTRUCTION
Plaster	<input checked="" type="checkbox"/> Kitchen	Single
Plaster Board	<input checked="" type="checkbox"/> Closets	Double
Celotex		Solid
Plywood		Very Cheap
Celled		Cheap
Open Studs		Medium
Painted		Good
Kalsomine		Special
Papered		Corner Joints
Unfinished Walls		Basement

FLOORS	FIREPLACE-NO.	CEILING HEIGHT
Hardwood	_____	Basement
Fir	_____	1st Floor
Concrete	_____	2nd Floor
Asphalt Tile	_____	3rd Floor
Shiplap	_____	Attic
	_____	Low
	_____	High



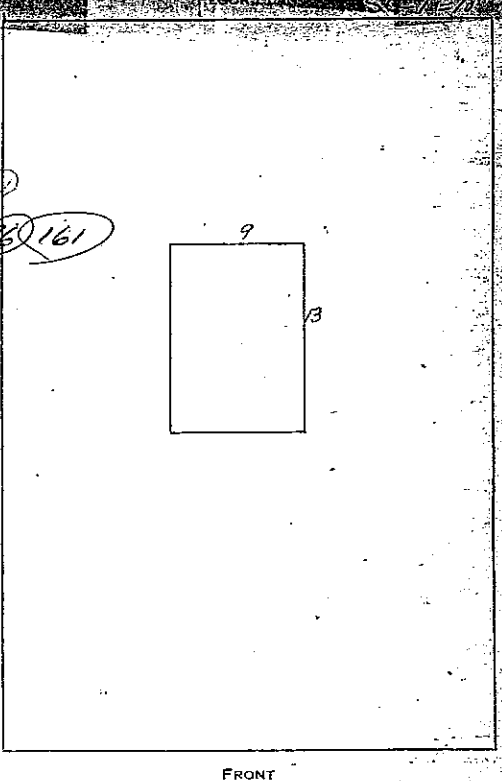
**2560**  
**PP-15**  
**92-58**

ADDITIONAL TAXES: 175.00  
 SECTION 17 TWP 185 RANGE 5 TRACT OR LOT NO. TAX LOT 114  
 N 100' meas. along W. line of Laka Washington Blvd of S. of 1st Cov. Lot 2  
 E. of 1st Ave.  
 ADDRESS: CONTRACT PURCHASER:  
 OWNER: *Don Wilson*

TYPE	CEILING HEIGHTS	ROOF	REFRIGERATION	PUMPS
USE				
FOUNDATION	CONVEYORS			FENCE
BASEMENT	CONSTRUCTION		UNFINISHED	
	BUILDING FINISHED			
EXTERIOR	YEAR BUILT	REMODELED		
	EFFECTIVE AGE	FUTURE LIFE	DEPR.	
	LAND INFORMATION			
	1. TOPOG. <i>Sloping</i>	2. ROAD	<i>Yes Conc.</i>	
	3. SEWAGE <i>None</i>	WATER	<i>NO</i>	
		DRAINAGE	<i>Fair</i>	
	5. TREND <i>Static</i>	6. USE	<i>Res.</i>	
		7. DISTRICT	<i>Med. Old</i>	
INTERIOR	LAND USE	SOIL TYPE	CROSS-TIMBER STAK	NO. ACRES
	<i>Res. under Cons.</i>	<i>E-R</i>		
	<i>Fond. only.</i>			
	LAND SIZE	TOTAL NO. OF ACRES		TOTAL AV.
	<i>X</i>	<i>.82</i>		<i>800</i>
PLUMBING			DIMENSIONS	
FLOORS			Sq. Ft. AREA	
HEATING			X	
WIRING			X	
			X	
	TOTAL AREA		IMPROVEMENT VALUE	
			MAIN BUILDING \$ <i>10</i>	
			OTHER BUILDINGS \$ <i>None</i>	
			TOTAL \$ <i>10</i>	
			ASSESSED VALUE 50% \$ <i>5</i>	

OTHER BUILDINGS	CONSTRUCTION	FLOOR	ROOF	STY.	DIMENSION	AREA	VALUE
GARAGE: <i>Shed</i>	<i>Single Shlap</i>	<i>Slap</i>	<i>T-P</i>	<i>1</i>	<i>9 x 13</i>	<i>117</i>	<i>\$ 21</i>

C	OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
	<i>Walter O. Nelson, Edm</i>	<i>5-7-61</i>	<i>E-431385</i>	<i>\$ 59,000</i>	<i>2</i>	<i>TL 96 161</i>
	<i>Dr DONALD WILCOX</i>	<i>6-3-68</i>	<i>E-022416</i>	<i>\$ 396,000</i>	<i>6</i>	<i>TL 96 161</i>









**NOTE TWO LIMITS DOUBLE ENTRY IN TAX ROLL**

2. SECTION **NOTE TWO** LIMITS **DOUBLE ENTRY** IN TAX ROLL

DESCRIPTION  
 Prop Gov Lot 2 ly E on Lake Wash Blvd W of N P R/T S. DISTRICT 39 NO. 164 1884 less 40' at cor sd Tr th W  
 sig 9 in 188' th N 0' 44' 30" W to 5 men to rd th Nely at sd rd to W men W 18' 24" th Sly alg sd men  
 to hse, also per ea S 25' of Gov Lot 2 ly W of Lake Wash Blvd hse N 100' meas alg 8' ln & Sh lds ad  
 192' S W of S 1/4 of S 1/4 of Gov Lot 2 ly W of Lake Wash Blvd hse N 100' meas alg 8' ln & Sh lds ad  
 MEAS ALG WLN 50' 84' 20'

3. ADDRESS OF PROPERTY \_\_\_\_\_ CONTRACT PURCHASER \_\_\_\_\_

4. FEE OWNER \_\_\_\_\_

5. ARCHITECT \_\_\_\_\_ CONTRACTOR \_\_\_\_\_

6. ORIG. BUILDING COST \$ \_\_\_\_\_ OCCUPIED BY Owner RENTAL PER MONTH \$ \_\_\_\_\_ ESTIMATED RENTAL PER MONTH \$ 85.00

7. CONDITION OF EXTERIOR Good INTERIOR Good FOUNDATION Good FLOOR PLAN Accept

8. BUILDING  
 1 Entry Dwlg  
 1 Story  
 5 Rooms  
 5 1st Floor

INTERIOR WALLS  
 1 Plywood  
 4 Open Studs

FLOORS  
 5 Fir

FIRE PLACE  
 None

INTERIOR TRIM  
 5 Unfinished

PLUMBING  
 5 Fixtures  
 1 Tub-Legg  
 1 Toilet  
 1 Basin  
 1 Sink  
 1 H. V Tank  
 (av)

TILE WORK  
 None

PORCHES  
 None

EXTRA FEATURES  
 None

BUILT-INS  
 Shelves

CONSTRUCTION  
 Single-Medium

CEILING HEIGHT  
 1st. 8'

FOUNDATION  
 P & B

ROOF  
 Shingle

EXTERIOR WALLS  
 Tar Paper  
 Shlap & T.P.

9. CORNER JOINTS Butted DOWN SPOUTS SEWER CONNECTED No

10. FIRST FLOOR JOIST SIZE 2 x 8 AND 20 INCH CENTERS BRIDGED Yes

11. FIRST FLOOR JOIST SUPPORT COLUMN OR POST SIZE 6 x 6

12. CLASS OR GRADE NO. 1-Good SHAPE NO. \_\_\_\_\_

13. BUILDING FINISHED OR UNFINISHED Unfinished

14. DEPRECIATION: CONDITION 0 % OBSLSE \_\_\_\_\_ % ECON. SUIT. \_\_\_\_\_ % TOTAL \_\_\_\_\_  
 YEAR BUILT 1938 REMODELED No EFFECTIVE AGE 0 YRS. FUTURE LIFE 30 YRS.

LAND INFORMATION

1. SIZE \_\_\_\_\_ 2. ROAD Yes - Concrete

3. SEWAGE Septic Tnk DRAINAGE Good WATER D PUMP --

4. TREND Static S. DISTRICT Med-Old 6. USE RES. Wtr-Front

LAND USE	SOIL TYPE	CROSS-TIMBER STAND	NO. ACRES	VALUE-ACRE	VALUE
Ras & OR	FF		.33	\$ 100	\$ 80
Brush-Stump		W por of T.L. 39			\$ 300
Pt. Cleared					\$
					\$

LAND SIZE \_\_\_\_\_ X TOTAL NUMBER OF ACRES 1.42 VALUE \$ 580

ASSESSED VALUE \$ \_\_\_\_\_

REMARKS \_\_\_\_\_

MAIN BUILDING

DIMENSION	SQ. FT. AREA
22 x 28	616
Ln-T 12 x 22	264
PCH. X	
PCH. X	

IMPROVEMENT VALUE


MAIN BUILDING \$ 460

OTHER BUILDINGS \$ none

TOTAL \$ 460

ASSESSED VALUE 80% \$ 368

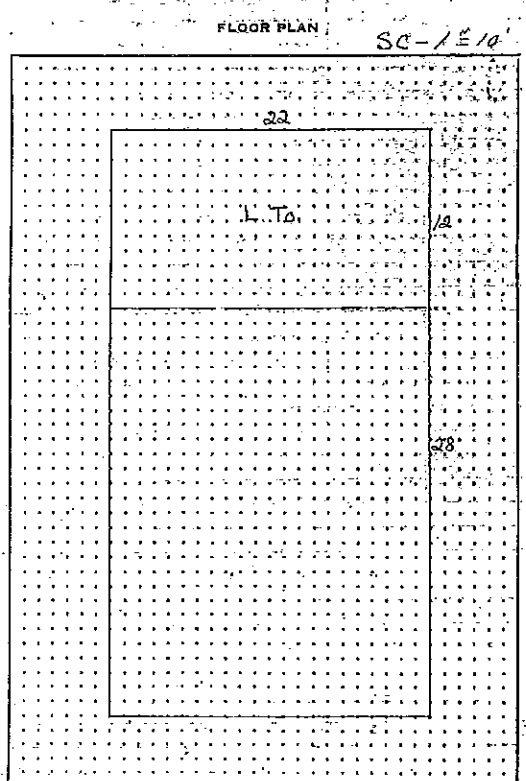
DATE 1-1-40



OTHER BUILDINGS	CONSTRUCTION	FLOOR	ROOF	STY.	DIMENSION	AREA	VALUE
GARAGE					X		\$
					X		
					X		
					X		
					X		

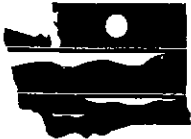
O	C	OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
		<u>W. K. Curtis</u>	<u>4-3-34</u>				
		<u>Doris L. Morgan</u>	<u>6-26-40</u>				

REMARKS \_\_\_\_\_





## Department of Ecology Documents



# REQUEST FOR PUBLIC RECORD

WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y

REQUESTER: Please complete form and submit to  
"Public Disclosure Coordinator" of the state agency identified.

TO	NAME OF STATE AGENCY	DEPARTMENT OF ECOLOGY	DATE OF REQUEST	TIME OF REQUEST
	PUBLIC RECORDS OR INFORMATION REQUESTED		REQUESTED BY	
		Yakima Bay Marina - 5207 HWY 101 Blvd	Evan K. Rothman	

COMPLETED BY PUBLIC DISCLOSURE COORDINATOR		ACKNOWLEDGEMENT OF RECEIPT	
NO OF COPIES	AMOUNT RECEIVED	DATE OF RECEIPT	TIME OF RECEIPT
20	\$ —	6/1/06	
PUBLIC DISCLOSURE COORDINATOR		RECIPIENT'S SIGNATURE	
Dan Kato			

REASON IF AGENCY IS UNABLE TO COMPLY

REQUESTER READ AND SIGN

I understand that if a list of individuals is provided me by the Department of Ecology, it will neither be used to promote the election of an official or promote or oppose a ballot proposition as prohibited by RCW 42.17.130 nor for commercial purposes or give or provide access to material to others for commercial purposes as prohibited by RCW 42.17.260(9).

I understand that I will be charged \_\_\_\_ cents per copy for all standard letter size copies I desire and that other size publications are available at cost.

REQUESTER'S SIGNATURE

Ecology is an Equal Opportunity Employer.

## Facility/Site Detail

**Facility/Site Name:** YARROW BAY MARINA SEDIMENTS

**Ecology Identifier:** 2486

### Facility/Site Location

Geographic Location	Latitude/Longitude
<p><b>Street Address or Location</b> 5207 LAKE WASHINGTON BLVD NE</p> <p><b>City:</b> KIRKLAND <b>ZIP Code:</b> 98033 <b>County:</b> KING</p> <p><b>Congressional District:</b> 6 <b>Legislative District:</b> 35</p>	<p><b>Latitude: Deg: 47 Min: 36 Sec: 4.32</b> <b>Longitude: Deg: 122 Min: 44 Sec: 33.54</b></p> <p style="text-align: center;"><b>Decimal Equivalents</b></p> <p><b>Latitude: 47.6012 Longitude: 122.7427</b></p> <p><b>Accuracy Level:</b> Unknown</p>

Display the location of this site and all other sites of interest to the Department of Ecology that are approximately within a one half mile radius. Display the location of this site only, but do it via a controllable version of the map.

### Reason for Interaction with the Department of Ecology

Interaction Description	Responsible Organization	Ecology Contact Phone #	Status
Independent Remedial Actn Prg	TOXICS	(360) 407-7224	Active

### Industrial Classification

SIC Code	SIC Code Description
4493	MARINAS

### Mailing Address of Facility/Site

No Address Information Available at this Time

## Facility/Site Detail

**Facility/Site Name:** Yarrow Bay Yacht Sales & Svc

**Ecology Identifier:** 33911356

### Facility/Site Location

Geographic Location	Latitude/Longitude
<b>Street Address or Location</b> 5207 LAKE WASHINGTON BLVD NE  <b>City:</b> KIRKLAND <b>ZIP Code:</b> 98033-7321 <b>County:</b> KING  <b>Congressional District:</b> 1 <b>Legislative District:</b> 48	<b>Latitude: Deg: 47 Min: 39 Sec: 20.38</b> <b>Longitude: Deg: 122 Min: 12 Sec: 16.45</b>  <b>Decimal Equivalents</b> <b>Latitude: 47.6557 Longitude: 122.2046</b>  <b>Accuracy Level:</b> Unknown

Display the location of this site and all other sites of interest to the Department of Ecology that are approximately within a one half mile radius. Display the location of this site only, but do it via a controllable version of the map.

### Reason for Interaction with the Department of Ecology

Interaction Description	Responsible Organization	Ecology Contact Phone #	Status
Underground Storage Tank	TOXICS	(360) 407-7206	Active
Hazardous Waste Generator	HAZWASTE	(360) 407-6023	Active
LUST Facility	TOXICS	(360) 407-7224	Inactive
GENERAL PERMIT INDUSTRIAL	WATQUAL	(360) 407-6400	Active

### Industrial Classification

SIC Code	SIC Code Description
3732	BOAT BUILDING AND REPAIRING
4493	MARINAS

### Mailing Address of Facility/Site

No Address Information Available at this Time



MAY 19 REC'D

ANNETTE ADEMASU, NWRO  
 JIM CHULOS, CRO  
 SUE SIMMS, SWRO  
 JIM GREEVES, ERO

THE ATTACHED PERMITS FOR SITE NUMBER 100973 <sup>maybe</sup> ~~ARE~~ OUT OF COMPLIANCE AND CANNOT RECEIVE A PERMIT WITHOUT FIRST NEGOTIATING A COMPLIANCE SCHEDULE. THEY ARE OUT OF COMPLIANCE FOR THE FOLLOWING REASONS:

- Release detection methods (WAC 173-360-335 and 345)
- Release detection for pressurized piping (WAC 173-360-350)
- New Tank performance standards (WAC 173-360-305)
- Deferred tank performance standards (WAC 173-360-300)
- Financial responsibility requirement (WAC 173-360, Part IV)
- Non payment of fees (WAC 173-360-190)

Permit not signed

~~Owners will receive a copy of their permits with a letter requesting that they contact the regional office if they wish to negotiate a compliance schedule, although the regional office may wish to initiate contact.~~

Thank you for your assistance. If you have any questions please call:

Joyce Smith      Scan 407-7206  
 Karen Backman      Scan 407-7203  
 Sheri Dotson      Scan 407-7207

# UNDERGROUND STORAGE TANK INFORMATION UPDATE

VALIDATED

Please check all of the information on this page to make sure it is correct. Make any changes on this page, and fill in any missing or incorrect information in the corrected information column on the right.

1/20/94 TANK OWNER INFORMATION Current Information Corrected Information (PRINT OR TYPE)

OWNER NUMBER: U0009284	
OWNER NAME: DONALD A. WILCOX	
OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE KIRKLAND, WA 98033-0000	
OWNER PHONE: (206) 822-6066	

2. TANK SITE INFORMATION Current Information Corrected Information (PRINT OR TYPE)

SITE NUMBER: 100973	
SITE NAME: YARROW BAY MARINA	
SITE ADDRESS: 5207 LK WASHINGTON BLVD NE KIRKLAND, WA 98033-0000	
SITE COUNTY: KING	
CONTACT PERSON: DENNIS BORTKO	
CONTACT PHONE: (206) 822-6066	

3. TANK INFORMATION Current Information Corrected Information (PRINT OR TYPE)

TANK ID: 4	
TANK STATUS: OPERATIONAL	
SUBSTANCE STORED: LEADED GASOLINE	
TANK SIZE: 5000-9999 GALLONS	
INSTALLATION DATE: 04-01-1992	

## 4. TANK FEE INFORMATION

The Annual Fee is for the Period 7/01/94 - 6/30/95

Tanks that are temporarily closed will not receive a permit but are subject to annual tank fees. Payments should be made by check or money order - no cash please. Return update form and payment to the Department of Ecology, P.O. Box 5128, Lacey, WA 98503-0210, or use return envelope provided.

Disputes must be made in writing. If you have general questions, please call 1-800-826-7716 (Voice) or (206) 407-7155 (TDD)

### ANNUAL FEE INFORMATION FOR ALL TANKS AT THIS SITE:

INVOICE NUMBER: UST51193 SITE NUMBER: 100973  
 2 TANKS AT \$75.00 EACH; DUE FOR CURRENT YEAR: \$150 ; TOTAL DUE FOR ALL YEARS: \$150  
 DATE DUE: JUNE 1, 1994

#### PREVIOUS YEARS' OUTSTANDING FEES:

1990: \$0      1991: \$0      1992: \$0      1993: \$0      1994: \$0

## 5. OWNER MUST SIGN IN THIS BLOCK TO RECEIVE VALID PERMITS

SWORN STATEMENT: I hereby swear under penalty of law that, based on my knowledge of the tank identified by the tank ID number, this tank is in compliance with applicable state requirements. Also, any new or corrected information required on this form has been entered accurately. I understand that false statements may result in this permit being immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

PRINT OR TYPE.

Dennis Bortko

Name of UST owner or Authorized Representative

Signature of UST Owner or Authorized Representative

4/5/94 822-6066

Date Signed

Telephone Number

(DO NOT DETACH - RETURN ALL PARTS OF THIS FORM TO ECOLOGY)

# UNDERGROUND STORAGE TANK INFORMATION UPDATE

VALIDATED  
4/20/94

Please check all of the information on this page to make sure it is correct. Make any changes on this page, and fill in any missing or incorrect information in the corrected information column on the right.

## TANK OWNER INFORMATION

Current Information

Corrected Information (PRINT OR TYPE)

OWNER NUMBER: U0009284  
 OWNER NAME: DONALD A. WILCOX  
 OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE  
 KIRKLAND, WA 98033-0000  
 OWNER PHONE: (206) 822-6066

## 2. TANK SITE INFORMATION

Current Information

Corrected Information (PRINT OR TYPE)

SITE NUMBER: 100973  
 SITE NAME: YARROW BAY MARINA  
 SITE ADDRESS: 5207 LK WASHINGTON BLVD NE  
 KIRKLAND, WA 98033-0000  
 SITE COUNTY: KING  
 CONTACT PERSON: DENNIS BORTKO  
 CONTACT PHONE: (206) 822-6066

## 3. TANK INFORMATION

Current Information

Corrected Information (PRINT OR TYPE)

TANK ID: 5  
 TANK STATUS: OPERATIONAL  
 SUBSTANCE STORED: DIESEL FUEL  
 TANK SIZE: 1101-2000 GALLONS  
 INSTALLATION DATE: 04-01-1992

## 4. TANK FEE INFORMATION

The Annual Fee is for the Period 7/01/94 - 6/30/95

Tanks that are temporarily closed will not receive a permit but are subject to annual tank fees. Payments should be made by check or money order - no cash please. Return update form and payment to the Department of Ecology, P.O. Box 5128, Lacey, WA 98503-0210, or use return envelope provided.

Disputes must be made in writing. If you have general questions, please call 1-800-826-7716 (Voice) or (206) 407-7155 (TDD)

ANNUAL FEE INFORMATION FOR ALL TANKS AT THIS SITE:

## 5. OWNER MUST SIGN IN THIS BLOCK TO RECEIVE VALID PERMITS

SWORN STATEMENT: I hereby swear under penalty of law that, based on my knowledge of the tank identified by the tank ID number, this tank is in compliance with applicable state requirements. Also, any new or corrected information required on this form has been entered accurately. I understand that false statements may result in this permit being immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

PRINT OR TYPE

Dennis Bortko

Name of UST owner or Authorized Representative

Signature of UST Owner or Authorized Representative

4/5/94 822-6066

Date Signed

Telephone Number

(DO NOT DETACH - RETURN ALL PARTS OF THIS FORM TO ECOLOGY)

1/26/94

Talked with Bud Paxman  
and let him know we still  
needed the site check/site  
assessment checklist and a  
site assessment report. I sent  
him a list of site assessors.  
Joyce



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

August 21, 1992

Dear Underground Storage Tank Owner:

We recently received information on the following site and tank(s) which indicates that the tank(s) have been closed:

Site Address: 5207 Lake Washington Blvd. NE, Kirkland  
Site No: 100973 Tank Ids: 1, 2, + 3

Until we receive documentation that the tank(s) have been permanently closed in accordance with federal and state regulations, we are unable to consider them closed for regulatory and billing purposes. If such closure has been completed, please fill out the enclosed form(s) as marked below and return them to our office as soon as possible. We will then be able to correct our records and resolve any outstanding fee payment issues relating to this site.

For tanks closed before March 1, 1991:

Permanent Closure/Change-in-Service Checklist

For tanks closed after March 1, 1991:

Permanent Closure/Change-in-Service Checklist  
 Site Check/Site Assessment Checklist  
 2 copies of Site Assessment Report

Please complete the forms and return them to:

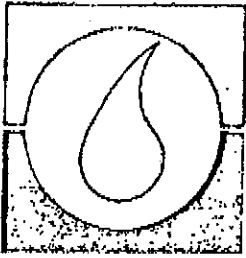
Washington State Department of Ecology  
Underground Storage Tank Section  
PO Box 47655  
Olympia, WA 98504-7655

Thank you for your cooperation. If you have any questions, please call me at (206) 438-7520.

Sincerely,

Tammie McClure  
Data Management Unit  
Toxics Cleanup Program

Enclosures



# PEMCO

437 N. Columbia Blvd.  
P.O. Box 11569  
Portland, Oregon 97211  
FAX (206) 872-8987  
1-800-822-0084

### FACSIMILE COVER LETTER

DATE: 6/4/92 TIME: \_\_\_\_\_ PAGES \_\_\_\_\_

NAME: Doug Knowlton LOCATION: D.O. E.

FAX NUMBER: 206-458-7759 REGARDING: Yarrow Bay Marina

FROM: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*Site 100973*  
*Yarrow Bay from*  
*FAXED info B+C Equip*  
*to be filed*  
*Doug 7282*  
*679*  
*354*



# UNDERGROUND STORAGE TANK Permanent Closure/Change-In-Service Checklist

The purpose of this form is to certify the proper closure/change-in-service of underground storage tank (UST) systems. These activities must be conducted in accordance with Chapter 173.360 WAC. Washington State UST rules require the tank owner or operator to notify Ecology in writing 30 days prior to closure or change-in-service of tanks. This must be done by completing the 30 Day Notice form (ECY 010-155).

This Permanent Closure Checklist shall be completed and signed by a Licensed Decommissioning Supervisor. The supervisor shall be on site when all tank permanent closure/change-in-service activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider. If any of the activities listed below have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

For further information about completing this form, please contact the Department of Ecology UST Program.

A separate checklist must be completed for each UST system (tank and associated piping), except that UST systems at one site may be reported together by completing page 2 of this form separately for each system. The completed checklist should be mailed to the following address within 30 days of the completion of the closure or change-in-service.

Underground Storage Tank Section  
Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504-8711

## 1. UST SYSTEM OWNER AND LOCATION

Site Owner/Operator: Donald Wilcox

Owners Address: 5207 Lake Washington Blvd, N.E.  
Street Kirkland, WA State 98033  
City ZIP Code

Telephone: (206) 822-6060

Site ID Number (on invoice or available from Ecology if tank is registered): N/A.

Site/Business Name: Varrow Dry Machine

Site Address: 5207 Lake Washington Blvd N.E. - King  
Street Kirkland, WA State 98033  
City County ZIP Code

## 2. TANK PERMANENT CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Firm: B+C Equipment Co. License Number: 5000007

Address: 20320 80th Ave. S.  
Street Kent, WA State 98032  
City ZIP Code

Telephone: (206) 872-8870

Licensed Supervisor: Mark Henry Decommissioning License Number: W001865

This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form or to completing.

**3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION**

1. Tank ID Number (as registered with Ecology): #3      2. Year Installed: ??

3. Tank capacity in gallons: 6000      4. Date of last use: 3/19/92

5. Last substance stored: Gasoline      6. Date of closure/change-in-service: 3/19/92

7. Type of closure: Closure with Tank Removal       In-place Closure       Change-in-Service

8. If in-place closure is used, the tank has been filled with the following substance: N/A

9. If change-in-service, indicate new substance stored in tank: N/A

10. Local permit(s) (if any) obtained from: City of Kirkland  
*Always contact local authorities regarding permit requirements.*

11. Has a site assessment been completed? Yes       No

*Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-158).*

**4. CHECKLIST**

Each item of the following checklist shall be initiated by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	<i>[Handwritten scribble]</i>		
2. Has all product piping been capped or removed?			
3. Have all non-product lines been capped or removed?			
4. Have all liquid and accumulated sludges been removed from the tank?			
5. Has the tank been properly purged or inerted?			
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?			
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.			
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?			
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?			

\*Item not applicable  
 I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

4/17/92      [Signature]  
 Date      Signature of Licensed Supervisor

**5. ADDITIONAL REQUIRED SIGNATURES**

4/17/92      [Signature]  
 Date      Signature of Licensed Service Provider (firm) Owner or Authorized Representative

\_\_\_\_\_  
 Signature of Tank Owner or Authorized Representative



This page must be completed separately for each tank permanently closed (decommissioned) or change-in-service at the site. For additional tanks you may photocopy this form prior to completing.

**3. TANK CLOSURE/CHANGE-IN-SERVICE INFORMATION**

- 1. Tank ID Number (as registered with Ecology): # 2
- 2. Year installed: ??
- 3. Tank capacity in gallons: 6,000
- 4. Date of last use: ~~3/19/92~~ 3/19/92
- 5. Last substance stored: gasoline
- 6. Date of closure/change-in-service: 3/19/92
- 7. Type of closure: Closure with Tank Removal  In-place Closure  Change-In-Service
- 8. If in-place closure is used, the tank has been filled with the following substance: N/A.
- 9. If change-in-service, indicate new substance stored in tank: N/A.
- 10. Local permit(s) (if any) obtained from: City of Kirkland  
Always contact local authorities regarding permit requirements.
- 11. Has a site assessment been completed? Yes  No

Unless an external release detection system is operating at the time of closure or change in service, and a report is provided as specified in WAC 173-360-390, a site assessment must be conducted. This site assessment must be conducted by a person registered with the Department of Ecology to perform site assessments. Results of the site assessment must be included with the Site Assessment Checklist (ECY 010-156).

**4. CHECKLIST**

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below.

	Yes	No	NA*
1. Has all liquid been removed from product lines?	<i>[initials]</i>		
2. Has all product piping been capped or removed?	<i>[initials]</i>		
3. Have all non-product lines been capped or removed?	<i>[initials]</i>		
4. Have all liquid and accumulated sludges been removed from the tank?	<i>[initials]</i>		
5. Has the tank been properly purged or inerted?	<i>[initials]</i>		
6. Have the drop tube, fill pipe, gauge pipe, pumps and other tank fixtures been removed?	<i>[initials]</i>		
7. Have all tank openings been plugged or capped? NOTE: One plug should have 1/8 inch vent hole.	<i>[initials]</i>		
8. Have all sludges removed from the tank been designated and disposed of in accordance with the state of Washington's dangerous waste regulations (Chapter 173-303 WAC)?	<i>[initials]</i>		
9. If removed, was tank properly labeled and disposed of in accordance with all applicable local, state and federal regulations?	<i>[initials]</i>		

\*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed permanent closure activities and to the best of my knowledge they have been conducted in compliance with all applicable state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

4/17/92  
Date

*[Signature]*  
Signature of Licensed Supervisor

**5. ADDITIONAL REQUIRED SIGNATURES**

4/17/92  
Date

*[Signature]*  
Signature of Licensed Service Provider (Firm) Owner or Authorized Representative

Date

Signature of Tank Owner or Authorized Representative





# UNDERGROUND STORAGE TANK

## 30 Day Notice of Intent to Close/Decommission Tanks

The purpose of this form is to provide the Department of Ecology with notice of intent to close/decommission an UST. It must be received 30 days prior to the closure activities. It must be signed and dated by either the owner/operator of the UST to be closed or his/her authorized representative. (This could be the firm contracted to do the work.) Ecology will notify the identified person of the earliest date closure/decommissioning activities may commence.

For questions on completing this form please call (206) 459-6293.

Please type or use ink.

The completed checklist should be mailed to:

Underground Storage Tank Section  
Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504-8711

DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS

SEP 10 1991

### 1. TANK OWNER AND LOCATION

UST Owner/Operator: YARROW BAY MARINA

Owners Mailing Address: 5207 Lake Wash. Blvd. N.E.  
Street KIRKLAND WASHINGTON 98033  
City State ZIP-Code

Telephone: ( 206 ) 822-6066

Site ID Number (on invoice or available from Ecology if tank is registered): ??? 100973

Site/Business Name: SAME

Site Address: SAME  
Street SAME  
City State ZIP-Code

### 2. TANK PERMANENT CLOSURE TO BE PERFORMED BY (if known):

Firm: B & C EQUIPMENT COMPANY

Address: 20320 80th Ave. So.  
Street Kent, Washington 98032  
City State ZIP-Code

Telephone: ( 206 ) 8872 Contact Name: R. B. Shaffer

### 3. TANK INFORMATION

Tank Identification	Approx. Closure Date	Tank Capacity (gallons)	Tank Age (years)	Last Substance Stored
1.	10-7-91	3,000	??	Diesel
2.	10-7-91	6,000	??	Gasoline
3.	10-7-91	6,000	??	Gasoline

### 4. SIGNATURE OF TANK OWNER/OPERATOR OR AUTHORIZED REPRESENTATIVE:

R. B. Shaffer Sr. Eng. 9-9-91  
Signature Title Date



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

September 11, 1991

Mr. R.B. Shaffer  
B & C Equipment Co.  
20320 80th Ave. So.  
Kent, WA 98032

Dear Mr. Shaffer:

This is to acknowledge receipt of your 30-day notice of intent to close underground storage tank(s) located at 5207 Lake Washington Blvd. NE, Kirkland, Washington.

We received your letter on September 10, 1991.

Your 30-day notice has been forwarded to the appropriate regional office. A field person with the Underground Storage Tank Program may visit your site within the 30-day period. However, with the many tank closures now taking place, it will not be possible to visit every site. You may proceed with closure thirty days from the date we received your letter (noted above).

If you did not request a full closure packet, but would like to receive one, you may do so by calling 1-800-826-7716 (in Washington state only) or (206) 459-6293. This closure packet contains forms entitled "Notice of Permanent Closure of Underground Storage Tank(s)" and "Site Check/Site Assessment Checklist". Please complete the forms and return them to the Department of Ecology when tank closure is complete.

Sincerely,

Sheri Dotson, Section Secretary  
Underground Storage Tank Section

SLS:sd



# UNDERGROUND STORAGE TANK

## 30 Day Notice of Intent to Close/Decommission Tanks

The purpose of this form is to provide the Department of Ecology with notice of intent to close/decommission an UST. It must be received 30 days prior to the closure activities. It must be signed and dated by either the owner/operator of the UST to be closed or his/her authorized representative. (This could be the firm contracted to do the work.) Ecology will notify the identified person of the earliest date closure/decommissioning activities may commence.

For questions on completing this form please call (206) 459-6293.

Please type or use ink.

The completed checklist should be mailed to:

Underground Storage Tank Section  
 Department of Ecology  
 Mail Stop PV-11  
 Olympia, WA 98504-8711

### 1. TANK OWNER AND LOCATION

UST Owner/Operator: YARROW BAY MARINA

Owners Mailing Address: 5207 Lake Wash. Blvd. N.E.  
Street P.O. Box

KIRKLAND WASHINGTON 98033  
City State ZIP Code

Telephone: ( 206 ) 822-6066

Site ID Number (on invoice or available from Ecology if tank is registered): ??? 100973

Site/Business Name: SAME

Site Address: SAME  
Street County

SAME  
City State ZIP Code

### 2. TANK PERMANENT CLOSURE TO BE PERFORMED BY (if known):

Firm: B & C EQUIPMENT COMPANY

Address: 20320 80th Ave. So.  
Street P.O. Box

Kent, Washington 98032  
City State ZIP Code

Telephone: ( 206 ) 8872 Contact Name: R. B. Shaffer

### 3. TANK INFORMATION

Tank Identification	Approx. Closure Date	Tank Capacity (gallons)	Tank Age (years)	Last Substance Stored
<u>1.</u>	<u>10-7-91</u>	<u>3,000</u>	<u>??</u>	<u>Diesel</u>
<u>2.</u>	<u>10-7-91</u>	<u>6,000</u>	<u>??</u>	<u>Gasoline</u>
<u>3.</u>	<u>10-7-91</u>	<u>6,000</u>	<u>??</u>	<u>Gasoline</u>

### 4. SIGNATURE OF TANK OWNER, OPERATOR OR AUTHORIZED REPRESENTATIVE

R. B. Shaffer Eng. 9-9-91  
Signature Title Date



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

CERTIFIED MAIL

Facility Compliance Tag: A3777

2 575 005 689

October 16, 1998

YARROW BAY MARINA (Site ID: 100973)  
5207 LK WASHINGTON BLVD NE  
KIRKLAND, WA 98033

Re: UST Site Number 100973  
King County

Dear tank owner/operator:

Washington State has passed a new law that affects owners and operators of regulated underground storage tanks (USTs). Substitute Senate Bill 6130 was passed in the 1998 legislative session to amend the state Underground Storage Tank Law (RCW 90.76).

The Department of Ecology is implementing a Facility Compliance Tagging program as directed by the new law. The compliance tag will make it easy for fuel distributors, Ecology inspectors, and the public to identify that a facility has upgraded their USTs to meet the December 22, 1998, standards. In order to receive a compliance tag for a facility, all of the regulated USTs will need to meet the following requirements (per RCW 90.76.020):

- ❖ All regulated USTs on a facility must meet the requirements for spill, overfill, and corrosion protection (tanks and piping), have valid pollution liability insurance, and have a Master Business License UST endorsement, or
- ❖ Any UST at the facility that does not have spill, overfill, and corrosion protection (tanks and piping), valid pollution liability insurance, and a Master Business License UST endorsement must be temporarily or permanently closed.

The Department of Ecology's database indicates that your facility has met all the requirements needed to receive and display a facility compliance tag at this fueling facility. Your facility must continue to maintain compliance with all the requirements listed above, or the compliance tag must be removed and returned to Ecology (per RCW 90.76.020).

Enclosed is the compliance tag for your facility. **The compliance tag must be displayed at the facility or location for which it was issued, as noted on the address label on the back of the compliance tag. In addition, the compliance tag must be displayed on or near the fire emergency shutoff device or, in the absence of such a device, in close proximity to the fill pipes and in a location that is clearly identifiable to persons delivering fuel to your USTs.**

The compliance tag is effective as of December 22, 1998. As stated in RCW 90.76.050, only UST facilities in compliance with the December 22, 1998, standards that display a compliance tag can legally receive delivery of fuel. Until December 22, 1998, persons delivering petroleum are still required to ensure that UST endorsements are present on the Master Business License issued by the Department of Licensing prior to delivering fuel to USTs. You will still need to send annual fees and proof of financial responsibility to the Department of Licensing when you renew your Master Business License.


If for any reason the department has issued this compliance tag to you in error and you either have not met the upgrade requirements listed above or no longer own or operate USTs, you must return the compliance tag immediately to the Department of Ecology at:

Washington State Department of Ecology  
Attention: Underground Storage Tank Section  
PO Box 47655  
Olympia, WA 98504-7600

Ecology thanks owners and operators who have completed UST system upgrades or installations in time to meet the December 22, 1998, standards. The department recognizes and appreciates your efforts to protect the environment in Washington State. We will, in turn, make our best efforts to ensure all owners and operators comply with the December 22, 1998, UST standards.

Please contact the Northwest Regional Office Receptionist who will refer you to the proper contact. The receptionist can be reached at (425) 649-7000.

Sincerely,



Barry Rogowski  
UST Coordinator



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

August 06, 1998

YARROW BAY MARINA  
5207 LK WASHINGTON BLVD NE  
KIRKLAND, WA 98033

Re: UST Site Number 100973

Dear Tank Owner/Operator:

Washington State has passed a new law that affects owners and operators of regulated underground storage tanks (USTs).

The Department of Ecology is implementing a Facility Compliance Tagging program. All owners and/or operators of regulated USTs must have a facility compliance tag properly displayed where fuel distributors can see it at properties with USTs to legally receive delivery of petroleum after December 22, 1998. Ecology is planning to issue compliance tags to all facilities with upgraded underground storage tanks on or before the December 22, 1998, deadline for upgrading. In order to receive a facility compliance tag, all of the regulated USTs at your facility will need to meet the following requirements:

- ◆ All regulated USTs on a facility must be upgraded with spill, overfill, and corrosion protection (tanks and piping), have valid pollution liability insurance, and master business license UST endorsement, or
- ◆ USTs must be temporarily or permanently closed.

Persons delivering petroleum after December 22, 1998, will not legally be permitted to deliver to USTs at facilities that do not have a facility compliance tag properly displayed. The tag must be displayed at the emergency shutoff device or other location visible to the fuel delivery person.

The enclosed report shows the information that Ecology currently has in the UST database for the UST systems at this facility in Washington State. The report also shows whether this facility is eligible to receive a compliance tag or gives reasons why it is ineligible.

In an effort to upgrade our files and give tank owners credit for upgrades that have been performed, please provide the following applicable information. If any of the tanks have been replaced, please provide closure information (enclosures #2 and 3) for the old tanks and register the new tanks with the Department of Licensing (enclosures #4 and 5). If any tanks have been





upgraded, please provide information on the enclosed retrofit or cathodic protection checklist (enclosure #6), whichever form is applicable. The Department understands that your UST's may be in compliance. We are currently in the process of updating our records so that a compliance tag can be issued as soon as possible.

The Department of Ecology will only accept signed forms from International Fire Code Institute certified contractors as proof that a tank and piping system has been upgraded with spill, overfill, and corrosion protection. Enclosed is a list of the current information that Ecology has for USTs at the YARROW BAY MARINA site(s).

Please contact the Northwest Regional Office Receptionist who will refer you to the proper contact. The receptionist can be reached at (425) 649-7000.

Please provide the required information within 30 days of receiving this notification so that we can update our database and provide your facility with compliance tags as soon as possible. This should be mailed to:

Washington State Department of Ecology  
Attn: Underground Storage Tank Section  
PO Box 47655  
Olympia, WA 98504-7600

Thank you for your assistance and cooperation.

Sincerely,



Barry Rogowski  
UST Coordinator

# DONALD WILCOX

08/06/1998

Site I.D.: 100973	<b>YARROW BAY MARINA</b>
Site UBI Number: 1790219010010001	
Address: 5207 LK WASHINGTON BLVD NE	City: KIRKLAND

**Total Tanks at Site: 2**

**Tanks Not in Compliance: 1**

<b>Tank: 4</b>	<b>Status: Operational</b>	<b>Permit Date: 6/30/99</b>	<b>Upgrade Date: 3/23/98</b>	<b>Install Date: 4/1/92</b>	
<b>Tank</b>			<b>Pipe</b>		
<b>Construction</b>	<b>Material</b>	<b>Corrosion Protection</b>	<b>Construction</b>	<b>Material</b>	<b>Corrosion Protection</b>
Double Wall Tank	Steel Clad with Fiberglass	Corrosion Resistant	Fiberglass	Double Wall Pipe	Corrosion Resistant
<b>Spill Prevention: Spill Bucket/Spill Box</b>		<b>Overfill Prevention: Automatic Shutoff</b>		<b>Tank Pass: Yes</b>	

<b>Tank: 5</b>	<b>Status: Operational</b>	<b>Permit Date: 6/30/99</b>	<b>Upgrade Date:</b>	<b>Install Date: 4/1/92</b>	
<b>Tank</b>			<b>Pipe</b>		
<b>Construction</b>	<b>Material</b>	<b>Corrosion Protection</b>	<b>Construction</b>	<b>Material</b>	<b>Corrosion Protection</b>
Double Wall Tank	Steel Clad with Fiberglass	Corrosion Resistant	Fiberglass	Double Wall Pipe	Corrosion Resistant
<b>Spill Prevention: Spill Bucket/Spill Box</b>		<b>Overfill Prevention: Automatic Shutoff</b>		<b>Tank Pass: No</b>	

**Facility Compliance Tag: No**

# UNDERGROUND STORAGE TANK INFORMATION UPDATE

Please check all of the information on this page to make sure it is correct. Make any changes on this page, and fill in any missing or incorrect information in the corrected information column on the right.

**OWNER MUST SIGN THE BACK OF THIS FORM TO RECEIVE A VALID PERMIT**

## TANK OWNER INFORMATION Current Information Corrected Information (PRINT OR TYPE)

A. OWNER NUMBER: U0009284  
 OWNER NAME: DONALD A. WILCOX  
 OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE  
 KIRKLAND, WA 98033-0000

OWNER PHONE: (206) 822-6066  
 B. OWNER TYPE: A - PRIVATE

[A] [B] [C] [D] [E] [F]  
 [G]

## TANK SITE INFORMATION Current Information Corrected Information (PRINT OR TYPE)

A. SITE NUMBER: 100973  
 SITE NAME: YARROW BAY MARINA  
 SITE ADDRESS: 5207 LK WASHINGTON BLVD NE  
 KIRKLAND, WA 98033-0000

B. CONTACT PERSON: DENNIS BORTKO  
 CONTACT PHONE: (206) 822-6066  
 C. SITE TYPE: L - MARINA

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]  
 [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T]  
 [U]:

## TANK INFORMATION Current Information Corrected Information

FEES PAID (IF no, please call Ecology):  
 1987-1990: YES      1990-1991: YES  
 1991-1992: YES      1992-1993: YES  
 1993-1994: PLEASE PAY ENCLOSED INVOICE *pd*

Mark out the correct choice for each item by coloring between the brackets. If the Current Information is correct, you do not need to fill in that item. See the example and instruction booklet for more information on using this form.

A. TANK ID: 4

B. TANK STATUS: A - OPERATIONAL

C. INSTALLATION DATE: 04-01-1992

D. TANK SIZE: D - 5000-9999 GALLONS

E. TANK MATERIAL: D - STL/FBRGLS COMPOSITE

F. TANK CONSTRUCTION: B - DOUBLE WALL

G. COMPARTMENTS: 1

H. TANK RELEASE  
 DETECTION: D - AUTO TANK GAUGE

I. TANK CORROSION  
 PROTECTION: D - CORR RESISTANT MATL

J. SPILL PREVENTION: A - CATCHMENT BASIN

K. OVERFILL PREVENTION: A - AUTOMATIC SHUTOFF

L. PIPING MATERIAL: C - FIBERGLASS

M. PIPING CONSTRUCTION: B - DOUBLE WALL

N. PUMPING SYSTEM: A - PRESSURIZED

O. PIPING RELEASE  
 DETECTION: A - AUTOMATIC LINE LEAK DETECTOR

P. PIPING CORROSION  
 PROTECTION: C - CORR RESIST MATERIAL

Q. SUBSTANCE STORED: A - LEADED GASOLINE

R. SUBSTANCE USE: A - MOTOR FUEL FOR VEHICLES

S. FIN. RESP. CLASS: E - 1-12 TANKS

T. FIN. RESP. METHOD: J - NOT YET REQUIRED

[A] [B]

[A] [B] [C] [D] [E] [F] [G] [H]

[A] [B] [C] [D] [E] [F] [G]

[A] [B] [C] [D]:

[1] [2] [3] [4] [5]:

[A] [B] [C] [D] [E] [F] [G] [H]

[A] [B] [C] [D] [E] [F]:

[A] [B] [C]

[A] [B] [C] [D] [E]

[A] [B] [C] [D] [E] [F]:

[A] [B] [C] [D] [E] [F]:

[A] [B] [C] [D] [E] [F] [G] [H]

[A] [B] [C] [D] [E] [F] [G] [H] [I]

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]

[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]



AGENCY USE ONLY	
AGENCY NO.	LOCATION CODE

AGENCY NAME

DEPARTMENT OF ECOLOGY  
 P O BOX 47655  
 OLYMPIA WA 98504-7655

CLAIMANT

Donald A. Wilcox  
 5207 LK Washington Blvd NE  
 Kirkland, WA 98033

DEPARTMENT OF ECOLOGY  
 UNDERGROUND STORAGE TANK  
 OCT 14 1993

DATE	DESCRIPTION	AMOUNT	FOR AGENCY USE
9/17/93	REFUND OF UNDERGROUND STORAGE TANK FEE: Refund off hold-overpayment - Next billing April '94 SITE # 100973 INVOICE # CHECK # 9474 C.J. # 461X1986 OWNER # 40009284 REC/ADJ # 153524	\$ 75 <sup>00</sup>	

PREPARED BY <i>Joyce M. Smith</i>	TELEPHONE NUMBER 438-7764	DATE 9/17/93	AGENCY APPROVAL <i>Karen G. Buckner</i>	DATE 9/21/93
DOC DATE 100493	PMT DUE DATE	CURRENT DOC NO 0663-040461X1986	REFERENCE DOC NO VODI	VENDOR NUMBER Refund
AGENCY USE	TRANS CODE 198182	FUND	PROGRAM INDEX	WORK CLASS
			PROJECT	SUB PROJ
			PRG PHAS	MAJ GRP
			MAJ SRCE	SUB SOURCE
				AMOUNT 75 <sup>00</sup>
				INVOICE NUMBER 0299000033

*Robert R. ...* DATE 10/1/93 AMOUNT 75<sup>00</sup>

UST ADJUSTMENTS  
HOLD FILE

TO BE USED WHEN PAYMENTS CANNOT BE APPLIED TO AN INVOICE

Customer Name Donald A Wilcox Site Number 100973

Customer Number U0009284 Invoice Number \_\_\_\_\_

Initiated by Joyce M Smith Date 9/17/93  
(Name)

Remitter Name Yarrow Bay Yacht Record Number 153524

Amount \$ 75<sup>00</sup> Sales Service

\*\* IF A REFUND IS REQUESTED, ATTACH REFUND VOUCHER

PROGRAM ACTION:

- 1)  Refund to Customer
- 2)  Post to Invoice Number \_\_\_\_\_

Customer Name \_\_\_\_\_ Site Number \_\_\_\_\_

Customer Number \_\_\_\_\_

3)  Credit/Apply to Next Billing

Remove From Pending Y  N

Approved By Joyce M. Smith Date 9/17/93  
(Name)

Comments \_\_\_\_\_  
\_\_\_\_\_

AGENCY USE ONLY	
AGENCY NO.	LOCATION CODE

**AGENCY NAME**

DEPARTMENT OF ECOLOGY  
 P O BOX 47655  
 OLYMPIA WA 98504-7655

**CLAIMANT**

Donald A. Wilcox  
 5207 LK Washington Blvd NE  
 Kirkland, WA 98033

DATE	DESCRIPTION	AMOUNT	FOR AGENCY USE
9/17/93	REFUND OF UNDERGROUND STORAGE TANK FEE: Refund off hold - overpayment - Next billing April '94 SITE # 100973 INVOICE # CHECK # 9474 C.J. # 461X1986 OWNER # 40009284 REC'DDJ # 153524	\$ 75 <sup>00</sup>	

PREPARED BY: *Joyce M. Smith* TELEPHONE NUMBER: 438-7764 DATE: 9/17/93 AGENCY APPROVAL: *Karen J. Buckner* DATE: 9/21/93  
 DOC. DATE: PMT DUE DATE: CURRENT DOC. NO.: REFERENCE DOC. NO.: VENDOR NUMBER: VENDOR MESSAGE: UBI NUMBER:

AGENCY USE	TRANS CODE	FUND	PROGRAM INDEX	WORK CLASS	PROJECT	SUB PROJ	PROJ PHAS	MAJ GRP	MAJ SRCE	SUB SOURCE	AMOUNT	INVOICE NUMBER

DEPARTMENT OF ECOLOGY  
 CASHIERING SYSTEM  
 UNDERGROUND STORAGE TANK SYSTEM RECEIVABLES REPORT

MAY 18 19  
 PAGE

DATE CJ NO  
 -19-1993 461X1986

CASHIER

NER NO	OWNER NAME	CHECK NO	INVOICE NO	SITE NO	AMOUNT
001087	CHARLES W BURR	10925	UST38876	001795	75.00
002407	FELTS FIELD AVIATION INC	28159	UST39874	009251	150.00
002407	FELTS FIELD AVIATION INC	28159	UST39875	009252	225.00
002407	FELTS FIELD AVIATION INC	28159	UST39876	009253	75.00
006162	RUDD COMPANY INC	14113	UST41850	012743	900.00
008531	L LESTER SNOOGRASS	1136	UST43760	012752	75.00
CJ. TOTAL					\$1500.00
RECORDS					6

Jarrow Bay Yacht Sales + Service  
 pd \$75.00. Put on hold because no. site #  
 was indicated.



# UNDERGROUND STORAGE TANK INFORMATION UPDATE

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## TANK OWNER INFORMATION Current Information Corrected Information (PRINT OR TYPE)

<p>A. OWNER NUMBER: U0009284                  OWNER NAME: DONALD A. WILCOX                  OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE                  KIRKLAND, WA 98033-0000</p> <p>OWNER PHONE: (206) 822-6066                  B. OWNER TYPE: A - PRIVATE</p>	<p>[A] [B] [C] [D] [E] [F]                  [G] _____</p>
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## TANK SITE INFORMATION Current Information Corrected Information (PRINT OR TYPE)

<p>A. SITE NUMBER: 100973                  SITE NAME: YARROW BAY MARINA                  SITE ADDRESS: 5207 LK WASHINGTON BLVD NE                  KIRKLAND, WA 98033-0000</p> <p>B. CONTACT PERSON: DENNIS BORTKO                  CONTACT PHONE: (206) 822-6066                  C. SITE TYPE: L - MARINA</p>	<p>[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]                  [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T]                  [U]: _____</p>
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## TANK INFORMATION Current Information Corrected Information

<p>FEES PAID (If no, please call Ecology):                  1989-1990: YES      1990-1991: YES                  1991-1992: YES      1992-1993: YES                  1993-1994: PLEASE PAY ENCLOSED INVOICE <i>175 Pa Pol</i>  <i>175 Due</i></p> <p>A. TANK ID: 5</p> <p>B. TANK STATUS: A - OPERATIONAL</p> <p>C. INSTALLATION DATE: 04-01-1992</p> <p>D. TANK SIZE: B - 1101-2000 GALLONS</p> <p>E. TANK MATERIAL: D - STL/FBRGLS COMPOSITE</p> <p>F. TANK CONSTRUCTION: B - DOUBLE WALL</p> <p>G. COMPARTMENTS: 1</p> <p>H. TANK RELEASE                  DETECTION: D - AUTO-TANK GAUGE</p> <p>I. TANK CORROSION                  PROTECTION: D - CORR RESISTANT MATL</p> <p>J. SPILL PREVENTION: A - CATCHMENT BASIN</p> <p>K. OVERFILL PREVENTION: A - AUTOMATIC SHUTOFF</p> <p>L. PIPING MATERIAL: C - FIBERGLASS</p> <p>M. PIPING CONSTRUCTION: B - DOUBLE WALL</p> <p>N. PUMPING SYSTEM: A - PRESSURIZED</p> <p>O. PIPING RELEASE                  DETECTION: A - AUTOMATIC LINE LEAK DETECTOR</p> <p>P. PIPING CORROSION                  PROTECTION: C - CORR RESIST MATERIAL</p> <p>Q. SUBSTANCE STORED: D - DIESEL FUEL</p> <p>R. SUBSTANCE USE: A - MOTOR FUEL FOR VEHICLES</p> <p>S. FIN. RESP. CLASS: E - 1-12 TANKS</p> <p>T. FIN. RESP. METHOD: I - NOT YET REQUIRED</p>	<p>Mark out the correct choice for each item by coloring between the brackets. If the Current Information is correct, you do not need to fill in that item. See the example and instruction booklet for more information on using this form.</p> <p>[A] [B]</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]</p> <p>[A] [B] [C] [D] [E] [F] [G]: _____</p> <p>[A] [B] [C] [D]: _____</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]</p> <p>[A] [B] [C] [D] [E] [F]: _____</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]</p> <p>[A] [B] [C] [D] [E] [F]: _____</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]</p> <p>[A] [B] [C] [D] [E] [F] [G] [H] [I]</p> <p>[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]</p>
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# UNDERGROUND STORAGE TANK INFORMATION UPDATE

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## TANK OWNER INFORMATION      Current Information      Corrected Information (PRINT OR TYPE)

<p>A. OWNER NUMBER: U0009284          OWNER NAME: DONALD A. WILCOX          OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE          KIRKLAND, WA 98033-0000</p> <p>OWNER PHONE: (206) 822-6066          B. OWNER TYPE: A - PRIVATE</p>	<p>[A] [B] [C] [D] [E] [F]          [G] _____</p>
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## TANK SITE INFORMATION      Current Information      Corrected Information (PRINT OR TYPE)

<p>A. SITE NUMBER: 100973          SITE NAME: YARROW BAY MARINA          SITE ADDRESS: 5207 LK WASHINGTON BLVD NE          KIRKLAND, WA 98033-0000</p> <p>B. CONTACT PERSON: DENNIS BORTKO          CONTACT PHONE: (206) 822-6066          C. SITE TYPE: L - MARINA</p>	<p>[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]          [K] [L] [M] [N] [P] [Q] [R] [S] [T]          [U] _____</p>
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## TANK INFORMATION      Current Information      Corrected Information

<p>FEES PAID (If no, please call Ecology):          1989-1990: YES      1990-1991: YES          1991-1992: YES      1992-1993: YES          1993-1994: PLEASE PAY ENCLOSED INVOICE <i>pd</i></p> <p>A. TANK ID: 1          B. TANK STATUS: A - OPERATIONAL          C. INSTALLATION DATE: 04-01-1992          D. TANK SIZE: D - 5000-9999 GALLONS          E. TANK MATERIAL: D - STL/FBRGLS COMPOSITE          F. TANK CONSTRUCTION: B - DOUBLE WALL          G. COMPARTMENTS: 1          H. TANK RELEASE              DETECTION: D - AUTO TANK GAUGE          I. TANK CORROSION              PROTECTION: D - CORR RESISTANT MATL          J. SPILL PREVENTION: A - CATCHMENT BASIN          K. OVERFILL PREVENTION: A - AUTOMATIC SHUTOFF          L. PIPING MATERIAL: C - FIBERGLASS          M. PIPING CONSTRUCTION: B - DOUBLE WALL          N. PUMPING SYSTEM: A - PRESSURIZED          O. PIPING RELEASE              DETECTION: A - AUTOMATIC LINE LEAK DETECTOR ✓          P. PIPING CORROSION              PROTECTION: C - CORR RESIST MATERIAL          Q. SUBSTANCE STORED: A - LEADED GASOLINE          R. SUBSTANCE USE: A - MOTOR FUEL FOR VEHICLES          S. FIN. RESP. CLASS: E - 1-12 TANKS          T. FIN. RESP. METHOD: I - NOT YET REQUIRED</p>	<p>Mark out the correct choice for each item by coloring between the brackets. If the Current Information is correct, you do not need to fill in that item. See the example and instruction booklet for more information on using this form.</p> <p>[A] [B]          / /</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]          [A] [B] [C] [D] [E] [F] [G]: _____          [A] [B] [C] [D]: _____          [1] [2] [3] [4] [5]: _____</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]          [A] [B] [C]          [A] [B] [C] [D] [E]          [A] [B] [C] [D] [E] [F]: _____          [A] [B] [C] [D] [E] [F]: _____          [A] [B] [C] [D] [E]          [A] [B] [C] [D] [E] [F] [G] [H]          [A] [B] [C] [D] [E] [F]: _____          [A] [B] [C] [D] [E] [F] [G] [H] [I]          [O]: _____          [A] [B] [C] [D] [E] [F]: _____          [A] [B] [C] [D] [E] [F] [G] [H] [I]          [A] [B] [C] [D] [E] [F] [G] [H] [I] [J]</p>
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# UNDERGROUND STORAGE TANK INFORMATION UPDATE

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## TANK OWNER INFORMATION Current Information Corrected Information (PRINT OR TYPE)

<p>A. OWNER NUMBER: <span style="float: right;">U0009284</span>                  OWNER NAME: DONALD A. WILCOX                  OWNER ADDRESS: 5207 LK WASHINGTON BLVD NE                  KIRKLAND, WA 98033-0000</p> <p>OWNER PHONE: (206) 822-6066                  B. OWNER TYPE: -</p>	<p><del> </del> [B] [C] [D] [E] [F]                  [G]</p>
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## TANK SITE INFORMATION Current Information Corrected Information (PRINT OR TYPE)

<p>A. SITE NUMBER: <span style="float: right;">100973</span>                  SITE NAME: YARROW BAY MARINA                  SITE ADDRESS: 5207 LK WASHINGTON BLVD NE                  KIRKLAND, WA 98033-0000</p> <p>B. CONTACT PERSON:                  CONTACT PHONE:                  C. SITE TYPE: L - MARINA</p>	<p>[A] [B] [C] [D] [E] [F] [G] [H] [I] [J]                  [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T]                  [U]:</p>
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## TANK INFORMATION Current Information Corrected Information

<p>A. TANK ID: 4 <span style="float: right;">FEE PAID:</span></p> <p>B. TANK STATUS: A - OPERATIONAL</p> <p>C. INSTALLATION DATE:</p> <p>D. TANK SIZE: D - 5000-9999 GALLONS</p> <p>E. TANK MATERIAL: -</p> <p>F. TANK CONSTRUCTION: -</p> <p>G. COMPARTMENTS:</p> <p>H. TANK RELEASE                  DETECTION: -</p> <p>I. TANK CORROSION                  PROTECTION: -</p> <p>J. SPILL PREVENTION: -</p> <p>K. OVERFILL PREVENTION: -</p> <p>L. PIPING MATERIAL: -</p> <p>M. PIPING CONSTRUCTION: -</p> <p>N. PRODUCT DELIVERY                  METHOD: -</p> <p>O. PIPING RELEASE                  DETECTION: -</p> <p>P. PIPING CORROSION                  PROTECTION: -</p> <p>Q. SUBSTANCE STORED: A - LEADED GASOLINE</p> <p>R. SUBSTANCE USE: -</p> <p>S. FIN. RESP. CLASS: -</p> <p>T. FIN. RESP. METHOD: -</p>	<p>Mark out the correct choice for each item by coloring between the brackets. If the Current Information is correct, you do not need to fill in that item. See the example and instruction booklet for more information on using this form.</p> <p>[A] [B]</p> <p style="text-align: center; font-size: 1.2em;">41192</p> <p>[A] [B] [C] [D] [E] [F] [G] [H]</p> <p>[A] [B] [C] <del> </del> [E] [D]:</p> <p>[A] <del> </del> [C] [D]:</p> <p><del> </del> [2] [3] [4] [D]:</p> <p>[A] [B] [C] <del> </del> [E] [F] [G] [H]                  [D]:</p> <p>[A] [B] [C] <del> </del> [E]</p> <p>[D]:</p> <p><del> </del> [B] [C] [D]:</p> <p><del> </del> [B] [C] [D] [E] [D]:</p> <p>[A] [B] <del> </del> [D] [E] [D]:</p> <p>[A] <del> </del> [C] [D] [E] [D]:</p> <p><del> </del> [B] [C] [D] [E]</p> <p>[D]:</p> <p><del> </del> [B] [C] [D] [E] [F] [G]</p> <p>[D]:</p> <p>[A] [B] <del> </del> [D] [E]</p> <p>[D]:</p> <p>[A] [B] [C] [D] [E] [F] [G] [H] [I]</p> <p>[D]:</p> <p><del> </del> [B] [C] [D] [E] [D]:</p> <p>[A] [B] [C] [D] <del> </del> [F] [G] [H] [I]</p> <p>[A] [B] [C] [D] [E] [F] [G] [H] <del> </del> [J]</p>
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**SWORN STATEMENT:** I hereby swear under penalty of law that, based on my review of the underground storage tank self-certification of compliance and tank information update and my knowledge of the tank identified by the above tank id number, this tank is in compliance with applicable state requirements. Also, any new or corrected information required on this form has been entered accurately. I understand that false statement may result in this permit being immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

PRINT OR TYPE: X Dennis Wilcox  
 Name and Official Title of UST Owner or UST Owners's Authorized Representative

X Dennis Wilcox 7-6-92 822-6066  
 Signature of UST Owner or Authorized Representative Date Signed Telephone Number



For Ecology Use Only



# UNDERGROUND STORAGE TANK Notice of Intent to Install

The purpose of this form is to provide the Department of Ecology with notice of intent to install an UST. The completed form must be received by Ecology at least 30 days prior to the installation. It must be signed and dated by either the owner/operator of the UST to be installed or by his or her authorized representative (this could be the firm contracted to do the work). Upon receipt of the properly completed form, Ecology will issue a permit valid for 90 days from the date of expiration of the 30-day notice.

A Notification Form (ECY 020-32) and Installation Checklist (ECY 010-156) will also be sent in response to this notice. These forms must be completed and submitted by the owner/operator and tank services provider, respectively, within 30 days of bringing the installed tanks into service. When these forms are submitted, if the UST is in compliance with Chapter 173-360 WAC (and the required annual fee is paid) a permit valid until the following June 30th will be issued.

For questions on completing this form please call (206) 493-9225.

Please type or use ink.

The completed checklist should be mailed to:

Underground Storage Tank Section  
Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504-8711

## 1. TANK OWNER AND LOCATION

UST Owner/Operator: Donald Wilcox

Owners Mailing Address: 5207 Lake Wash. Blvd. N.E.  
Street  
Kirkland Wa. 98033  
City State ZIP-Code

Telephone: (206) 822-6066

Site ID Number (on invoice or available from Ecology if other tanks at this site are registered): NOT REGISTERED  
 (Replacement tanks will retain the original site number)

Site/Business Name: Narrow Bay Marina

Site Address: 5207 Lake Wash. Blvd N.E.  
Street  
Kirkland Wa. 98033  
City State ZIP-Code

## 2. TANK INSTALLATION TO BE PERFORMED BY (if known):

Firm: B+C Equipment Co. License Number: 5000007

Address: 20320 80th Ave. S.  
Street  
Kent Wa. 98032  
City State ZIP-Code

Telephone: (206) 872-8890 Contact Name: Mark L. Henry

# UNDERGROUND STORAGE TANK Installation Checklist

*Yellow Bay*

The purpose of this form is to certify the proper installation of underground storage tank (UST) systems. Installation shall be in accordance with Chapter 173.360 WAC. Washington State UST rules also require submittal of a Notification form (ECY 020-32) within 30 days of bringing any newly installed UST system into use.

This Installation Checklist shall be completed and signed by a Licensed Installation and Retrofitting Supervisor. The licensed supervisor shall be on site when all tank installation activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider. If any of the activities in section 4 have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

All required tank and line tightness testing during and upon completion of UST system installation shall be separately certified by a licensed tightness testing supervisor on the Tightness Testing Checklist. All required installation and testing of cathodic protection systems upon completion of UST system installation shall be separately certified by a licensed cathodic protection supervisor on the Cathodic Protection Checklist. If the tank is pre-engineered for cathodic protection a corrosion expert is still required to design the field installation of any piping corrosion protection.

For further information about completing this form, please contact the Department of Ecology UST Program.

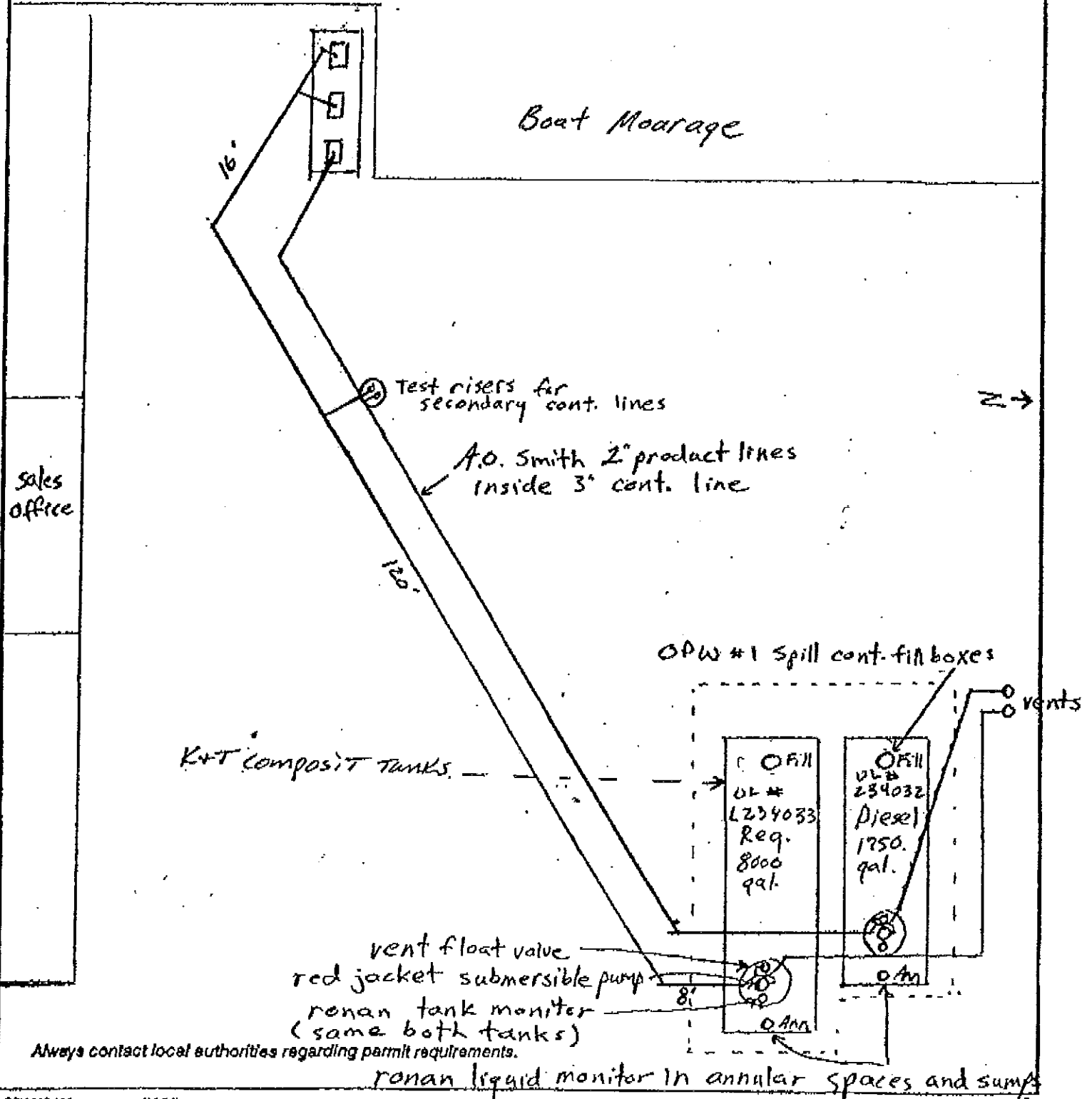
The completed checklist should be mailed to the following address within 30 days after completing the installation:  
Underground Storage Tank Section, Department of Ecology, Mail Stop PV-11, Olympia, WA 98504-8711

<b>1. UST SYSTEM OWNER AND LOCATION</b>			
UST Owner/Operator:	<u>Yellow Bay Marina</u>		
Owners Address:	<u>5207 Lake Wash Blvd. N.E.</u>		P.O. Box
	<u>Kirkland</u>	<u>WA</u>	ZIP Code
Telephone:	<u>(206) 822-6066</u>		
Site ID Number (on invoice or available from Ecology if other tanks have been registered at this site):	<u>N/A</u>		
Site/Business Name:	_____		
Site Address:	<u>Same as above</u>		County
	_____	_____	ZIP Code
	_____	_____	_____
<b>2. TANK INSTALLATION PERFORMED BY:</b>			
Firm:	<u>B+C Equipment Co.</u>	License Number:	<u>5000007</u>
Address:	<u>20320 80th Ave. S.</u>		P.O. Box
	<u>Kent</u>	<u>WA</u>	<u>98032</u>
Telephone:	<u>(206) 872-8890</u>		
Licensed Supervisor:	<u>Dan Dennis</u>	Installation/Retrofitting License Number:	<u>W000090</u>

### 3. AS-BUILT SITE PLAN.

An as-built site plan of the tank and piping system installation must be shown in the space provided below. Show North arrow and nearest street(s). Indicate tank and piping dimensions and distances to adjacent structures and property lines. Show the location and configuration of the completed installation. Show adjacent structures. Indicate tank ID number for each tank shown. The tank ID should be the same tank ID number provided by the owner/operator on the Notification form.

Date installation was completed: 4/10/92



4. CHECKLIST

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below upon completion of work described in that item.

	Yes	No	NA*
<b>A. Preinstallation Inspection and Testing</b>			
1. Have all damaged coating areas (holidays) been repaired with compatible coating according to tank manufacturer's recommendations?	X		
2. Have tank and piping fittings been checked for tightness?	X		
3. Has tank been air (soap) tested?	X		
4. If double walled tank, have inner tank and interstitial space been pressure tested in accordance with manufacturer's recommendations for double walled tanks?	X		
5. If steel tank(s), has any plastic wrapping over anodes been removed?	X		
<b>B. Installation</b>			
1. Has bedding depth below tank(s) and piping been provided per code and manufacturer's requirements?	X		
2. Have cover depths above tank(s) and piping been provided per code and manufacturer's requirements?	X		
3. Have tanks been installed with spacing between tank(s) and sides of excavation per code and manufacturer's requirements?	X		
4. If concrete holddown pad is used, is bedding thickness between tank and holddown pad per code and manufacturer's requirements?			X
5. Does bedding and backfill material used meet all code and manufacturer's requirements?	X		
6. Has bedding and backfill material surrounding tank(s) and piping been placed per code and manufacturer's requirements?	X		
7. If hold down straps are used on steel tank(s), is tank electrically isolated from holddown strap?	X		
8. If anchoring or supplemental holddown is required, has it been installed per code and manufacturer's requirements?	X		
9. Has tank vertical deflection been measured and found within limits specified by manufacturer?	X		
10. Has all piping been installed per code and piping manufacturer's recommendations?	X		
11. Has all piping been pressure tested per code prior to backfilling and connection to the tank?	X		
12. Has electrical isolation of flanged metallic piping connections been verified?			X
13. Prior to backfilling over steel tank has electrical isolation from all metallic piping and equipment been verified?			X
14. Has overflow prevention and spill containment equipment been installed per code and manufacturer's recommendations?	X		
15. Have release detection systems been installed and calibrated per code and manufacturer's requirements?	X		

\*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed installation activities and to the best of my knowledge they have been conducted in compliance with all state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

4-13-92  
Date

*Don Desnoes*  
Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

4/13/92  
Date  
4-21-92  
Date

*M. L. Howard*  
Signature of Licensed Service Provider (firm) Owner or Authorized Representative  
*Donald M. ...*  
Signature of Tank Owner or Authorized Representative



**SECTION I. OWNERSHIP OF TANK(S)**

1. Ownership  A Other \_\_\_\_\_ *Entered 6-22-92 TAM*

2. Owner  
 DONALD A WILCOX  
 Name

5207 LK Washington Blvd NE  
 Street Address

KIRKLAND WA 98033  
 City State

KING 206-822-6066  
 County Area Code Phone Number

DEPARTMENT OF ECOLOGY  
 UNDERGROUND STORAGE TANKS

JUN 22 1992

3. Owner Type:  A

**SECTION II. CONTACT PERSON AT THE TANK SITE**

1. Contact person  
 DENNIS BORTKO  
 Name

General Manager 206-822-6066  
 Job Title Area Code Phone Number

**SECTION III. TANK SITE INFORMATION**

1. Indian land  If this site is located within the boundaries or an indian reservation of indian trust land, STOP. These tanks should be reported to EPA on a federal notification form. Call (206) 553-2580 to obtain the appropriate forms.

2. Site Name and Address  
 Site Name

Address

City State ZIP Code

County Area Code Phone Number

3. Site Type

**SECTION IV. THE TOTAL NUMBER OF TANKS AT THIS SITE**

- 1. Number of tanks containing petroleum, which are now in use or are temporarily closed: 2
- 2. Number of tanks which have stored petroleum, but are now permanently closed: 0
- 3. Number of tanks containing regulated chemicals, which are now in use or are temporarily closed: 0
- 4. Number of tanks which have stored regulated chemicals, but are now permanently closed: 0
- 5. TOTAL NUMBER OF TANKS 2

Please read instructions carefully before completing ANY portion of this form.

**SECTION V. INFORMATION ON INDIVIDUAL TANKS**

A Tank ID	B Status	C Installation Date	D Capacity	E Tank Material	F Tank Construction	G Compartments	H Tank Release Detection	I Tank Corrosion Protection	
1	X4	A	6/4/10/192	D	D	B	1	CDEG	D
2	X5	A	6/4/10/192	B	D	B	1	CDEG	D
3		/ /							
4		/ /							
5		/ /							
6		/ /							
7		/ /							
8		/ /							
9		/ /							
10		/ /							
11		/ /							
12		/ /							
13		/ /							
14		/ /							
15		/ /							

Use this space to make any necessary comments on individual tank information.  
Be sure to note the Tank ID and column these comments address.

Please read instructions carefully before completing ANY portion of this form.

INFORMATION ON INDIVIDUAL TANKS (CONTINUED)

J Spill Prevention	K Overfill Prevention	L Piping Material	M Piping Construction	N Product Delivery Method	O Piping Release Detection	P Piping Corrosion Protection	Q Substance Stored	R Substance Use	
A	B	C	B	B	A	C	A	A	1
A	B	C	B	B	A	C	D	A	2
									3
									4
									5
									6
									7
									8
									9
									10
									11
									12
									13
									14
									15

**SECTION VI.**

**FINANCIAL RESPONSIBILITY**

Item S. Financial Responsibility Category of Tank Owner

E

Item T. Financial Responsibility Method

I

1. Insurer (if applicable): \_\_\_\_\_ 2. Policy Number: \_\_\_\_\_

3. Attach a list of any tanks at this site that are not covered by the owner's financial responsibility. Include an explanation.

4. Attach photocopy of certifying document for financial responsibility.

**SECTION VII.**

**INSTALLER'S CERTIFICATION**

I hereby certify that the new underground tanks listed on this form were installed according to all applicable regulations, codes, and standards and that this firm is a licensed service provider and that a licensed supervisor was on site during all required installation activities.

Signature of Licensed Service Provider (Firm) Owner or Authorized Representative

Date Signed

License Number

Signature of Licensed Supervisor(s)

Date Signed

License Number

**SECTION VIII.**

**TANK OWNER'S CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents. To the best of my knowledge and belief, the submitted information is true, accurate, and complete.

Type or print name:

Dennis Bortko

Type or print title:

General Manager

6/16/92

Dennis W Bortko

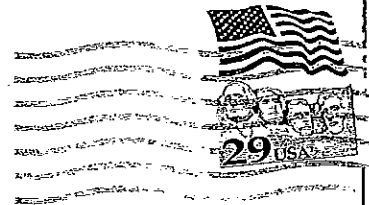
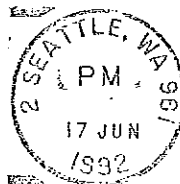
Date Signed

Signature (PLEASE SIGN IN INK)

Page 4

Keep a completed copy of this form for your records

YARROW BAY MARINA  
5207 LK. WASH. BLYD. N.E.  
KIRKLAND, WA 98033



Return this form to:

Underground Storage Tank Section  
Department of Ecology  
P.O. Box 47655  
Olympia, WA 98504-7655



# UNDERGROUND STORAGE TANK Installation Checklist

JVI 3d1 NW  
Yarrow Bay

The purpose of this form is to certify the proper installation of underground storage tank (UST) systems. Installation shall be in accordance with Chapter 173.360 WAC. Washington State UST rules also require submittal of a Notification form (ECY 020-32) within 30 days of bringing any newly installed UST system into use.

This Installation Checklist shall be completed and signed by a Licensed Installation and Retrofitting Supervisor. The licensed supervisor shall be on site when all tank installation activities are being conducted. The firm which employs the licensed supervisor shall also be licensed by the Washington State Department of Ecology as a Service Provider. If any of the activities in section 4 have been supervised by a different licensed supervisor, a separate checklist must be filled out and signed by the licensed supervisor performing those activities.

All required tank and line tightness testing during and upon completion of UST system installation shall be separately certified by a licensed tightness testing supervisor on the Tightness Testing Checklist. All required installation and testing of cathodic protection systems upon completion of UST system installation shall be separately certified by a licensed cathodic protection supervisor on the Cathodic Protection Checklist. If the tank is pre-engineered for cathodic protection a corrosion expert is still required to design the field installation of any piping corrosion protection.

For further information about completing this form, please contact the Department of Ecology UST Program.

The completed checklist should be mailed to the following address within 30 days after completing the installation:

Underground Storage Tank Section, Department of Ecology, Mail Stop PV-11, Olympia, WA 98504-8711

DEPARTMENT OF ECOLOGY  
UNDERGROUND STORAGE TANKS

## 1. UST SYSTEM OWNER AND LOCATION

APR 23 1992

UST Owner/Operator: Yarrow Bay Marina

Owners Address: 5207 Lake Wash Blvd. N.E.  
Street P.O. Box

Kirkland, Wa  
City State

Telephone: (206) 822-6066 ZIP-Code

Site ID Number (on invoice or available from Ecology if other tanks have been registered at this site): N/A 100973

Site/Business Name: \_\_\_\_\_

Site Address: Same as above  
Street County

\_\_\_\_\_  
City State ZIP-Code

## 2. TANK INSTALLATION PERFORMED BY:

Firm: B+L Equipment Co. License Number: 5009007

Address: 20320 80th Ave. S.  
Street P.O. Box

Kent Wa  
City State 98032  
ZIP-Code

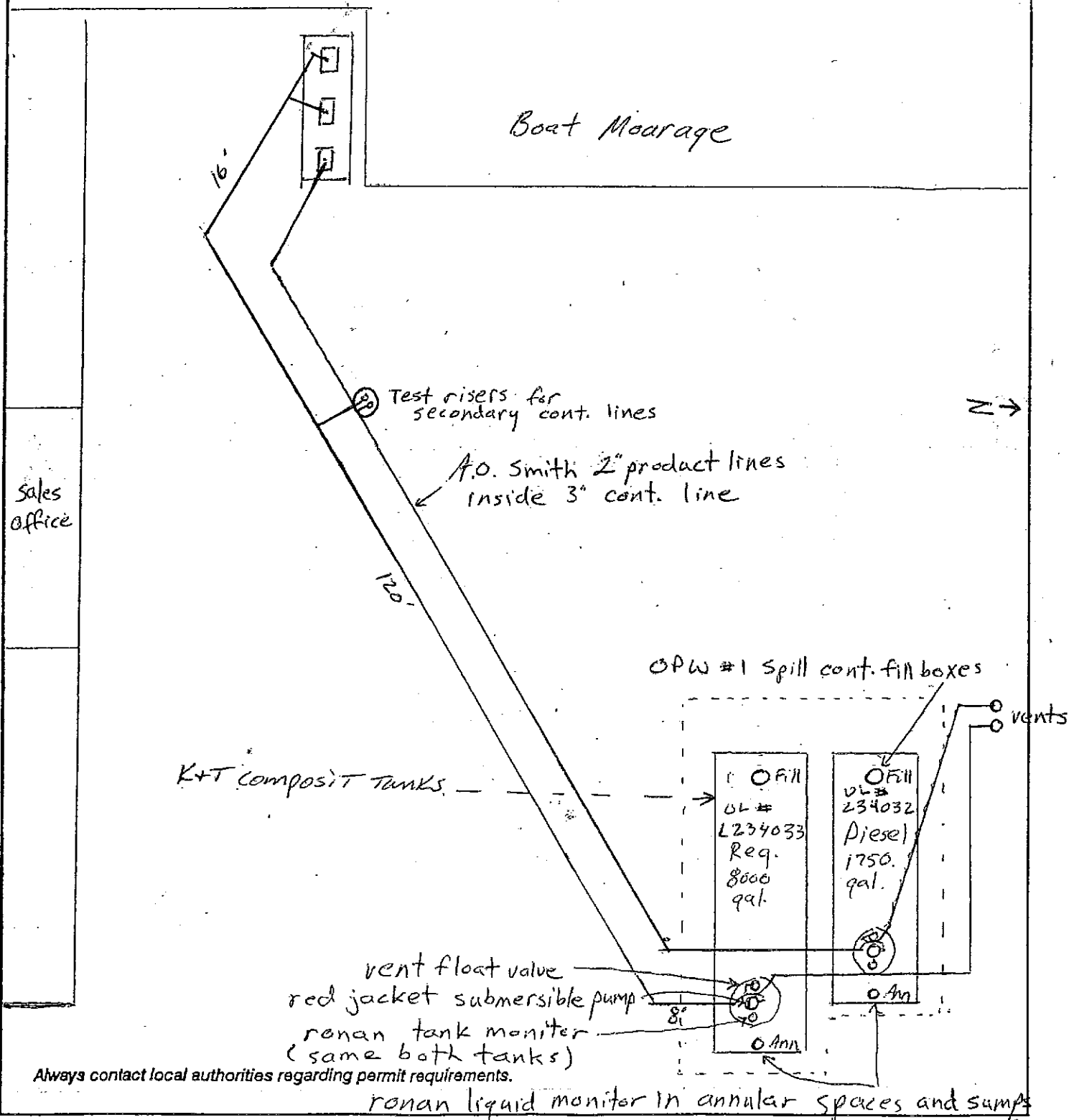
Telephone: (206) 872-8890

Licensed Supervisor: Dan Deanison Installation/Retrofitting License Number: W000090

3. AS-BUILT SITE PLAN.

An as-built site plan of the tank and piping system installation must be shown in the space provided below. Show North arrow and nearest street(s). Indicate tank and piping dimensions and distances to adjacent structures and property lines. Show the location and configuration of the completed installation. Show adjacent structures. Indicate tank ID number for each tank shown. The tank ID should be the same tank ID number provided by the owner/operator on the Notification form.

Date installation was completed: 4/10/92



4. CHECKLIST

Each item of the following checklist shall be initialed by the licensed supervisor whose signature appears below upon completion of work described in that item.

A. Preinstallation Inspection and Testing

Yes No NA\*

- 1. Have all damaged coating areas (holidays) been repaired with compatible coating according to tank manufacturer's recommendations?  Yes  No  NA\*
- 2. Have tank and piping fittings been checked for tightness?  Yes  No  NA\*
- 3. Has tank been air (soap) tested?  Yes  No  NA\*
- 4. If double walled tank, have inner tank and interstitial space been pressure tested in accordance with manufacturer's recommendations for double walled tanks?  Yes  No  NA\*
- 5. If steel tank(s), has any plastic wrapping over anodes been removed?  Yes  No  NA\*

B. Installation

- 1. Has bedding depth below tank(s) and piping been provided per code and manufacturer's requirements?  Yes  No  NA\*
- 2. Have cover depths above tank(s) and piping been provided per code and manufacturer's requirements?  Yes  No  NA\*
- 3. Have tanks been installed with spacing between tank(s) and sides of excavation per code and manufacturer's requirements?  Yes  No  NA\*
- 4. If concrete holddown pad is used, is bedding thickness between tank and holddown pad per code and manufacturer's requirements?  Yes  No  NA\*
- 5. Does bedding and backfill material used meet all code and manufacturer's requirements?  Yes  No  NA\*
- 6. Has bedding and backfill material surrounding tank(s) and piping been placed per code and manufacturer's requirements?  Yes  No  NA\*
- 7. If hold down straps are used on steel tank(s), is tank electrically isolated from holddown strap?  Yes  No  NA\*
- 8. If anchoring or supplemental holddown is required, has it been installed per code and manufacturer's requirements?  Yes  No  NA\*
- 9. Has tank vertical deflection been measured and found within limits specified by manufacturer?  Yes  No  NA\*
- 10. Has all piping been installed per code and piping manufacturer's recommendations?  Yes  No  NA\*
- 11. Has all piping been pressure tested per code prior to backfilling and connection to the tank?  Yes  No  NA\*
- 12. Has electrical isolation of flanged metallic piping connections been verified?  Yes  No  NA\*
- 13. Prior to backfilling over steel tank has electrical isolation from all metallic piping and equipment been verified?  Yes  No  NA\*
- 14. Has overflow prevention and spill containment equipment been installed per code and manufacturer's recommendations?  Yes  No  NA\*
- 15. Have release detection systems been installed and calibrated per code and manufacturer's requirements?  Yes  No  NA\*

\*Item not applicable

I hereby certify that I have been the licensed supervisor present on site during the above listed installation activities and to the best of my knowledge they have been conducted in compliance with all state and federal laws, regulations and procedures pertaining to underground storage tanks.

Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

4-13-92  
Date

*Sam Dennis*  
Signature of Licensed Supervisor

5. ADDITIONAL REQUIRED SIGNATURES

4/13/92  
Date

*M. J. Howard*  
Signature of Licensed Service Provider (firm) Owner or Authorized Representative

4-21-92  
Date

*Donald Wilson*  
Signature of Tank Owner or Authorized Representative

40009284 100973

## Underground Storage Tank Self-Certification of Compliance Form

This form must be completed and signed for the underground storage tank identified below to receive a permit from the Department of Ecology. Without a permit, the tank cannot receive product or be operated (in the case of waste oil tanks, the tank cannot have the product removed).

Owner Name: Donald A. Wilcox Site Name: Yarrow Bay Marina

Owner Addr: 5207 Lk. Wash. Blvd. N.E. Site Addr: same

Kirkland, WA 98033 City State Zip

Tel No. (206) 822-6066 Tank Id. 2 (From Notif. Form)

### INFORMATION REGARDING FINANCIAL RESPONSIBILITY:

This must be completed for the Underground Storage Tank Permit to be validated.

1. Mark the box which accurately describes the UST identified by the above Tank ID number:
  - a.  The UST is owned by the state or federal government.
  - b.  The UST stores a non-petroleum hazardous substance.
  - c.  The UST is a deferred tank (listed on page 9 of the guide).
  - d.  None of the above.
2. Financial Responsibility Compliance Category.  
Enter the appropriate letter from page 6 or 7 of the Self-Certification Guide: D
3. Financial Responsibility Compliance Method(s).  
Enter the appropriate letter(s) from page 8 of the Self-Certification Guide: A

### SWORN STATEMENT:

I hereby swear under penalty of law that, based on my review of the UST Self-Certification Guide and my knowledge of the tank identified by the above Tank ID Number, this tank is in compliance with the applicable state requirements. Also, the information required above regarding financial responsibility requirements has been accurately entered for this tank. I understand that if this is a false statement the permit for the UST may be immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

print or type: Donald A. Wilcox, Owner

Name and Official Title of UST Owner or UST Owner's Authorized Representative

Donald A. Wilcox Signature of UST Owner or Authorized Representative Date Signed 8/11/91 Telephone Number (206) 822-6066

[Do not detach. Return both parts to Ecology]





# SOILTEST AINLAY TANK 'TEGRITY TESTER™' FIELD TEST DATA

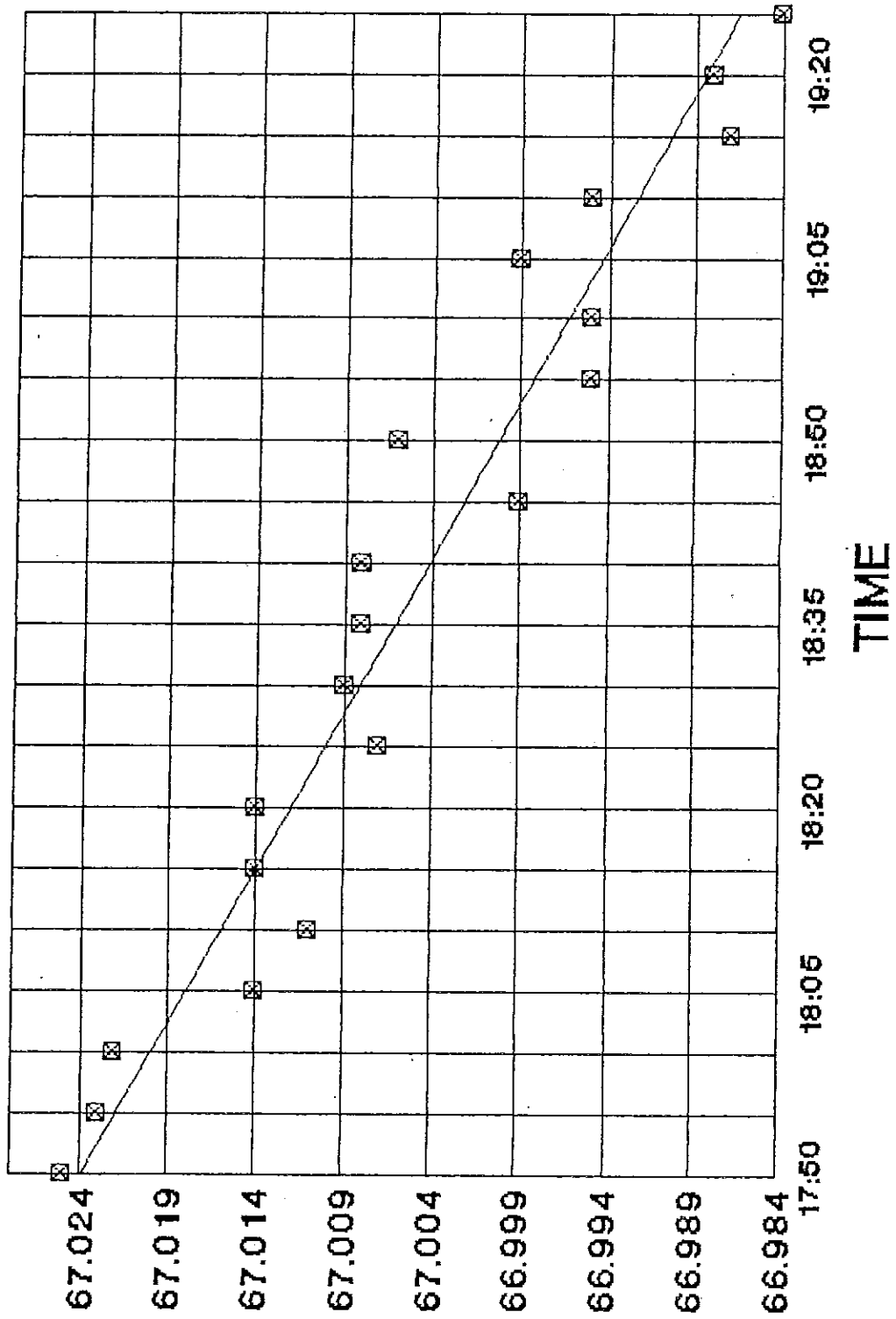
<b>1</b> <b>TANK OPERATOR</b>	NAME <u>YARROW Bay MARINA</u>	ADDRESS <u>5207 LAKE Washington</u> CITY <u>BLVD NE</u> <u>KIRKLAND</u> STATE <u>WA</u> ZIP <u>98033</u>	PHONE ( <u> ) 822 - 6066</u> ( <u> ) -</u>			
<b>2</b> <b>TANK SPECIFICATIONS</b>	ID NUMBER _____	CAPACITY - GALS <u>6000</u>	CONTENTS <u>REGULAR</u>	STEEL / GLASS <input checked="" type="checkbox"/> <input type="checkbox"/> UNKNOWN <input type="checkbox"/>	MANUFACTURER _____	AGE - YRS. <u>25 YRS</u> UNKNOWN <input type="checkbox"/>
<b>3</b> <b>WATER TABLE</b>	DISTANCE FROM GRADE TO WATER INTERFACE IN BACKFILL AREA OF TANK _____ INS.					
<b>4</b> <b>TEST SCHEDULE / TANK FILL UP</b>	SCHEDULED DELIVERY DATE: <u>7/16/91</u> , TIME <u>13:00</u> HRS. ACTUAL DELIVERY DATE: <u>7/16/91</u> , TIME <u>13:00</u> HRS. TANK FILLED <u>24</u> HOURS BEFORE SCHEDULED TEST TIME* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS					
<b>SCHEDULED TEST DATE</b>	TANK TO BE TESTED ON: <u>7/17/91</u> , TIME <u>17:50</u> HRS.					
<b>5</b> <b>TOP-OFF</b>	DATE OF TOP-OFF: <u>7/16/91</u> , TIME <u>0</u> HRS. AMOUNT <u>2</u> GALLONS TOP-OFF COMPLETED: <u>12</u> HOURS BEFORE TEST CALCULATION START* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS					
<b>6</b> <b>OFFICIALS CONTACTED</b>	NAME / AUTHORITY			PHONE		
	_____			( ) -		
	_____			( ) -		
	_____			( ) -		
RESPONSIBILITY OF OTHERS <input type="checkbox"/> / NOT APPLICABLE <input type="checkbox"/>						
<b>7</b> <b>TEST RESULTS</b>	THIS TEST WAS PERFORMED IN ACCORDANCE WITH PROCEDURES DESCRIBED IN SOILTEST'S INSTRUCTION BOOK AND MEETS THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S.E.P.A.) 40 CFR PART 280.					
		TEST DATE	LEAK RATE G.P.H.	DOES NOT EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD	DOES EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD	
		<u>7/17/91</u>	<u>-.034</u> G.P.H.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>8</b> <b>TECHNICIAN CERTIFICATION</b>	THIS CERTIFIES THAT THE TANK DESCRIBED WAS TESTED BY THE UNDERSIGNED TECHNICIAN AND THAT THE STATED RESULT REPRESENTS THE STATE OF THE TANK WITH A 99% PROBABILITY OF DETECTION AND A 1% PROBABILITY OF FALSE ALARM ON THIS DATE TO THE BEST OF MY KNOWLEDGE.					
	SIGNED <u>John H. Jones</u>			CERTIFICATION NO. <u>2249-B</u>		
	FOR (TEST COMPANY) <u>NORTHWEST TANK TESTING</u>			ISSUE DATE: <u>6/13/91</u>		
	ADDRESS <u>4411 SE 2nd Pl</u>					
	<u>Renton</u> CITY			<u>WA</u> STATE		<u>98056</u> ZIP
<b>9</b> <b>NOTES / OBSERVATIONS / COMMENTS</b>	INCLUDE SEPARATE SHEET IF MORE SPACE REQUIRED (SECTION 19)					

## SOILTEST AINLAY TANK TIGHTNESS TEST NO.

TANK I.D. DIMENSIONS	(a) TANK NO. <u>2</u> (b) CAPACITY <u>6,000</u> GALS (c) CONTENTS <u>Regular</u> <small>Actual</small>
	(d) DIAMETER <u>94"</u> (e) FILL PIPE LENGTH <u>33 1/2"</u> (f) GRADE TO BOTTOM <u>12 1/2"</u>
	(g) GRADE TO TOP _____
INTERNAL WATER	WATER IN TANK PRIOR TO TEST <u>0</u> * = <u>NA</u> GALLONS
ADDITIONAL HEAD	ADDITIONAL HEAD REQUIRED (HEIGHT OF EXTERNAL WATER X DENSITY OF WATER ÷ DENSITY OF PRODUCT) (a) HEIGHT OF WATER ABOVE TANK IN BACK FILL AREA = <u>NA</u> (b) DENSITY OF PRODUCT IN TANK (FROM TABLES) = _____ LBS. / CU. IN. (c) DENSITY OF EXTERNAL WATER = <u>0.036</u> LBS. / CU. IN. (d) ADDITIONAL HEAD REQUIRED _____ * x <u>.036</u> ÷ _____ = _____ <small>12(a) 12(c) 12(b)</small>
FILL PIPE EXTENSION	FILL PIPE EXTENSION (ADDITIONAL HEAD - FILL PIPE LENGTH + 8") <u>NA</u> - _____ + 8" = _____ * EXTENSION PIPE REQUIRED <small>12(d) 10(e)</small>
EFFICIENT OF EXPANSION	(a) API GRAVITY <u>59.1</u> AT <u>78</u> °F; (b) API GRAVITY AT 60°F <u>56.9</u> (c) COEFFICIENT OF EXPANSION <u>.00066676</u> NOTE: THE API GRAVITY METHOD APPLIES ONLY TO PETROLEUM HYDROCARBONS. A LIST OF COEFFICIENTS FOR COMMON CHEMICALS IS APPENDED IN OPERATING INSTRUCTIONS.
CALCULATIONS	(a) START TEST <u>17:50</u> HRS. (b) END TEST <u>19:20</u> HRS. (c) TEST TIME <u>90</u> MINS. (d) SLOPE OF "BEST-FIT" LINE DURING TEST <u>+10.004111</u> °F PER MINUTE (e) TEMPERATURE CHANGE DURING TEST (SLOPE OF "BEST-FIT" LINE x TEST TIME) $+10.004111 \times 90 = +10.037$ °F <small>15(d) 15(c)</small> (f) VOLUME CHANGE DUE TO TEMPERATURE (ACTUAL CAPACITY x TEMP. CHANGE x COEFF OF EXPANSION) $\frac{6,000}{10(b)} \times +10.037 \times .00066676 = +10.148$ GALS <small>15(e) 14(c)</small> (g) TOTAL PRODUCT ADDED / SUBTRACTED DURING TEST (SECTION 16, VOLUME ADDED / SUBTRACTED) END TEST COLUMN D - START TEST COLUMN D = VOLUME ADDED / SUBTRACTED. $0.122 - 0.025 = 0.097$ GALS END COLUMN D START COLUMN D LINE <u>27</u> LINE <u>9</u> (h) VOLUME CHANGE NOT DUE TO TEMPERATURE $+10.148 + 0.097 = +10.048$ GALS <small>15(f) 15(g)</small> LEAK RATE (GALLONS PER HOUR) $\text{LEAK RATE} = \frac{+10.048}{(20)} \times \frac{15(h) \times 60}{15(c) \text{ TEST TIME}} = +10.032$ G.P.H.
THIS LEAK RATE <del>10.032</del> DOES NOT EXCEED THE STANDARD OF 0.050 G.P.H. DESCRIBED IN NATIONAL FIRE PROTECTION ASSOCIATION BULLETIN N.F.P.A. 329.  THIS LEAK RATE <del>10.032</del> DOES NOT EXCEED THE STANDARD OF 0.100 G.P.H. WITH 95% PD AND 5% PFA DESCRIBED IN FEDERAL REGISTER SEPTEMBER 23, 1988.	

JOB NARROW Bay DATE 7-17-191 TESTER John Hines  
 ADDRESS 5207 Lake Wash Blvd NE TEST COMPANY Nordwest Tank Testing

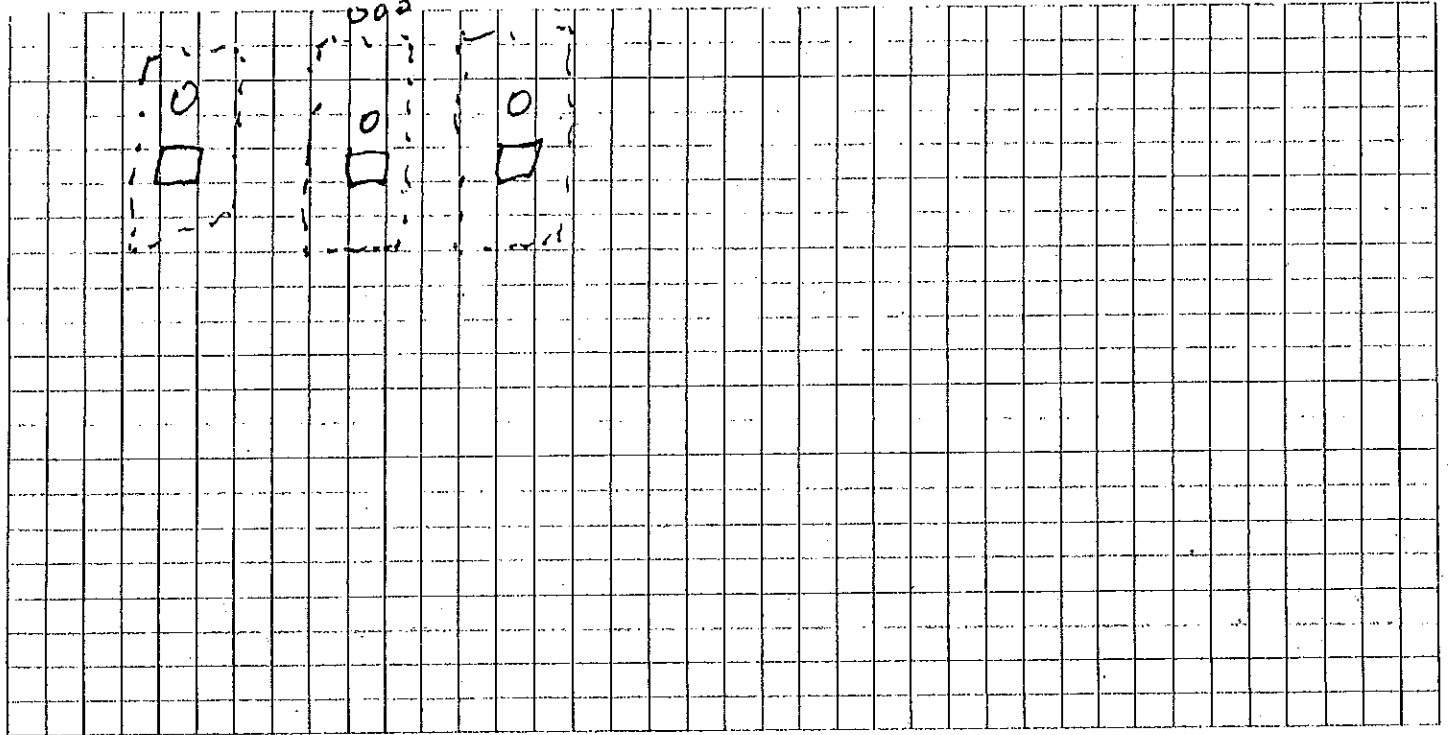
**YARROW BAY MARINA**  
 6207 LAKE WASHINGTON BLVD NE  
 KIRKLAND WA. 98033



JULY 17, 1981  
 6.000 GAL REGULAR

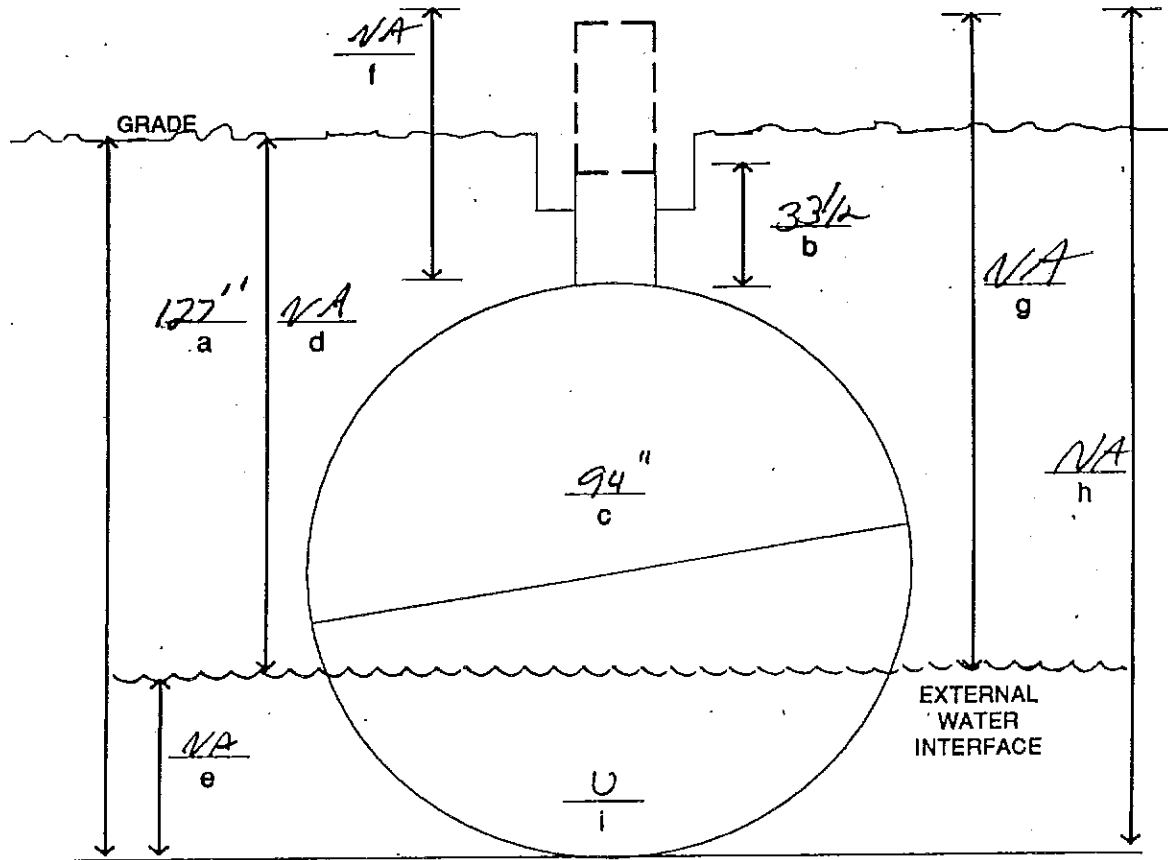
TEST COMPANY NW TANK TESTING

17. TEST SITE LAYOUT



ADDRESS 5207 LAKE WASH BLVD NW

18. TANK DIMENSIONS



- (a) = GRADE TO TANK BOTTOM
- (b) = EXISTING FILL PIPE
- (c) = TANK DIAMETER
- (d) = GRADE TO WATER INTERFACE
- (e) = WATER ABOVE TANK BOTTOM
- (f) = COMPENSATING HEAD
- (g) = TEST LEVEL TO WATER INTERFACE
- (h) = TEST LEVEL TO TANK BOTTOM
- (i) = WATER IN TANK

# Underground Storage Tank Self-Certification of Compliance Form

1009254  
100973

This form must be completed and signed for the underground storage tank identified below. I receive a permit from the Department of Ecology. Without a permit, the tank cannot receive product or be operated. (In the case of waste oil tanks, the tank cannot have the product removed).

Owner Name: <u>Donald A. Wilcox</u>	Site Name: <u>Yarrow Bay Marina</u>
Owner Addr: <u>5207 Lk. Wash. Blvd. N.E.</u>	Site Addr: <u>5207 Lk. Wash. Bl. N.E.</u>
<u>Kirkland, WA 98033</u>	<u>Kirkland, WA 98033</u>
City State Zip	City State Zip
Tel No. (206) <u>822-6066</u>	Tank Id. <u>1</u> (From Notif. Form)

### INFORMATION REGARDING FINANCIAL RESPONSIBILITY:

This must be completed for the Underground Storage Tank Permit to be validated.

1. Mark the box which accurately describes the UST identified by the above Tank ID number:
  - a.  The UST is owned by the state or federal government.
  - b.  The UST stores a non-petroleum hazardous substance.
  - c.  The UST is a deferred tank (listed on page 9 of the guide).
  - d.  None of the above.
2. Financial Responsibility Compliance Category. Enter the appropriate letter from page 6 or 7 of the Self-Certification Guide: D
3. Financial Responsibility Compliance Method(s). Enter the appropriate letter(s) from page 8 of the Self-Certification Guide: A

### SWORN STATEMENT:

I hereby swear under penalty of law that, based on my review of the UST Self-Certification Guide and my knowledge of the tank identified by the above Tank ID Number, this tank is in compliance with the applicable state requirements. Also, the information required above regarding financial responsibility requirements has been accurately entered for this tank. I understand that if this is a false statement the permit for the UST may be immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

print or type: Donald A. Wilcox, Owner

Name and Official Title of UST Owner or UST Owner's Authorized Representative Donald A. Wilcox

Signature of UST Owner or Authorized Representative [Signature] Date Signed 8/11/91 Telephone Number (206) 822-6066

[Do not detach. Return both parts to Ecology]



# SOILTEST AINLAY TANK 'TEGRITY TESTER™ FIELD TEST DATA

<b>1</b> <b>TANK OPERATOR</b>	NAME <u>NARROW Bay</u>	ADDRESS <u>5207 LAKE WASH BLVD NE</u> CITY <u>KIRKLAND</u> STATE <u>WA</u> ZIP <u>98033</u>	PHONE <u>( ) 822-6066</u> <u>( ) -</u>				
<b>2</b> <b>TANK SPECIFICATIONS</b>	ID NUMBER	CAPACITY - GALS <u>3000</u>	CONTENTS <u>Diesel</u>	STEEL / GLASS <input checked="" type="checkbox"/> <input type="checkbox"/> UNKNOWN <input type="checkbox"/>	MANUFACTURER <u>UNKNOWN</u> <input checked="" type="checkbox"/>	AGE - YRS. <u>25 yrs</u> UNKNOWN <input type="checkbox"/>	
<b>3</b> <b>WATER TABLE</b>	DISTANCE FROM GRADE TO WATER INTERFACE IN BACKFILL AREA OF TANK. <u>NA</u> INS.						
<b>4</b> <b>TEST SCHEDULE / TANK FILL UP</b>	SCHEDULED DELIVERY DATE: <u>7/16/91</u> , TIME <u>13:00</u> HRS. ACTUAL DELIVERY DATE: <u>7/16/91</u> , TIME <u>13:00</u> HRS. TANK FILLED <u>24</u> HOURS BEFORE SCHEDULED TEST TIME* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS						
<b>SCHEDULED TEST DATE</b>	TANK TO BE TESTED ON: <u>7/17/91</u> , TIME <u>17:50</u> HRS.						
<b>5</b> <b>TOP-OFF</b>	DATE OF TOP-OFF: <u>7/17/91</u> , TIME <u>13:00</u> HRS. AMOUNT <u>2</u> GALLONS TOP-OFF COMPLETED: <u>10</u> HOURS BEFORE TEST CALCULATION START* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS						
<b>6</b> <b>OFFICIALS CONTACTED</b>	NAME / AUTHORITY			PHONE			
			<u>( ) -</u>				
			<u>( ) -</u>				
			<u>( ) -</u>				
RESPONSIBILITY OF OTHERS <input type="checkbox"/> / NOT APPLICABLE <input type="checkbox"/>							
<b>7</b> <b>TEST RESULTS</b>	THIS TEST WAS PERFORMED IN ACCORDANCE WITH PROCEDURES DESCRIBED IN SOILTEST'S INSTRUCTION BOOK AND MEETS THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S.E.P.A.) 40 CFR PART 280.						
TEST DATE		LEAK RATE G.P.H.		DOES NOT EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD		DOES EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD	
<u>7/17/91</u>		<u>0.017</u> G.P.H.		<input checked="" type="checkbox"/>		<input type="checkbox"/>	
<b>8</b> <b>TECHNICIAN CERTIFICATION</b>	THIS CERTIFIES THAT THE TANK DESCRIBED WAS TESTED BY THE UNDERSIGNED TECHNICIAN AND THAT THE STATED RESULT REPRESENTS THE STATE OF THE TANK WITH A 99% PROBABILITY OF DETECTION AND A 1% PROBABILITY OF FALSE ALARM ON THIS DATE TO THE BEST OF MY KNOWLEDGE.						
SIGNED <u>John Hines</u>			CERTIFICATION NO. <u>2249-13</u>			ISSUE DATE: <u>6/13/91</u>	
FOR (TEST COMPANY) <u>NORTHWEST TANK TESTING</u>							
ADDRESS <u>4411 SE 200th Pl</u>							
				<u>Renton</u>		<u>WA 98056</u>	
				CITY		STATE ZIP	
<b>9</b> <b>NOTES / OBSERVATIONS / COMMENTS</b>	INCLUDE SEPARATE SHEET IF MORE SPACE REQUIRED (SECTION 19)						

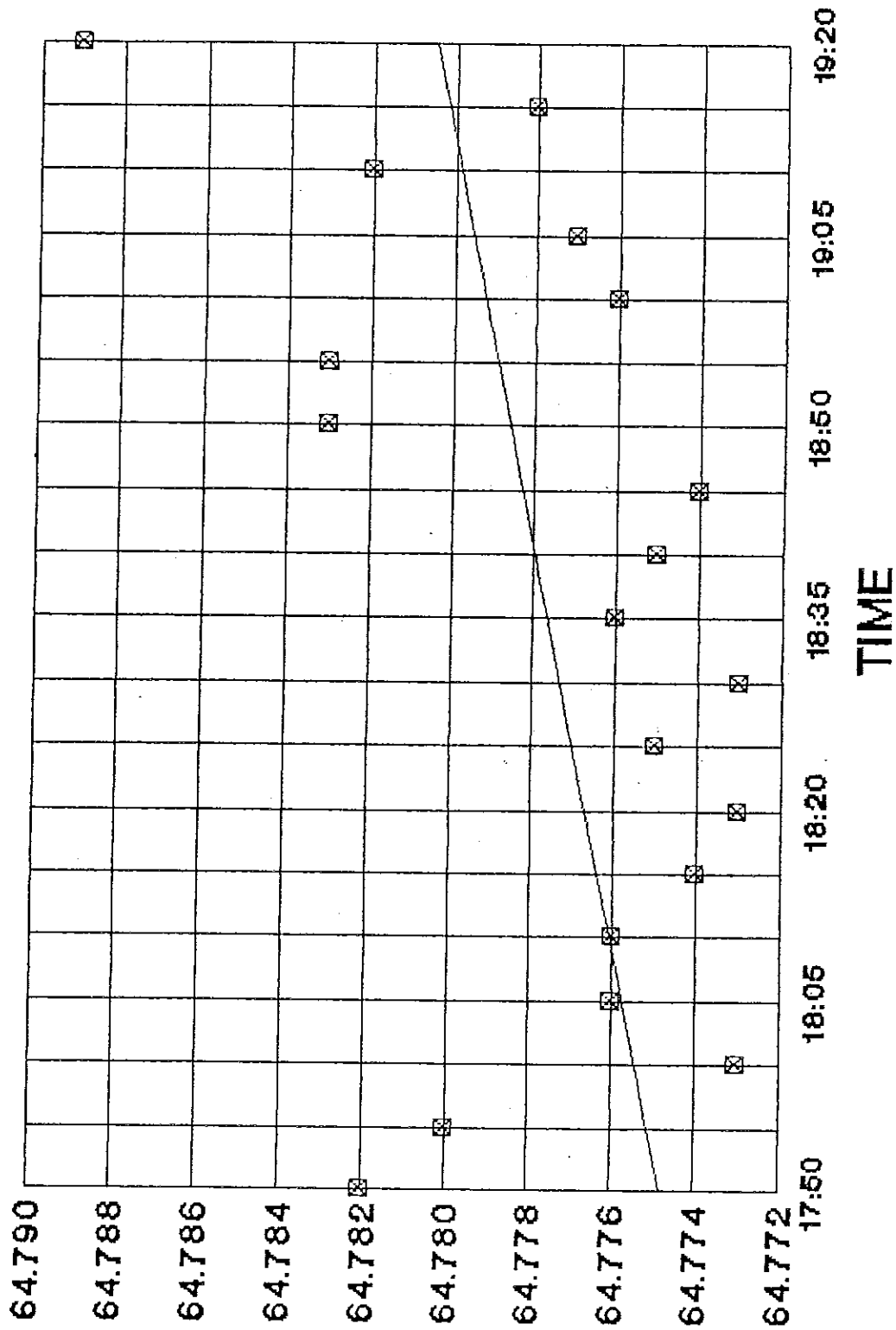
# SOILTEST<sup>(H)</sup>

## SOILTEST AINLAY TANK TIGHTNESS TEST NO.

TANK I.D. DIMENSIONS	(a) TANK NO. <u>1</u> (b) CAPACITY <u>3000</u> GALS (c) CONTENTS <u>Diesel</u> <i>Actual</i>
	(d) DIAMETER <u>24"</u> (e) FILL PIPE LENGTH <u>29 1/2"</u> (f) GRADE TO BOTTOM <u>103 1/2"</u> (g) GRADE TO TOP _____
INTERNAL WATER	WATER IN TANK PRIOR TO TEST <u>0</u> = <u>NA</u> GALLONS
ADDITIONAL HEAD	ADDITIONAL HEAD REQUIRED (HEIGHT OF EXTERNAL WATER X DENSITY OF WATER ÷ DENSITY OF PRODUCT) (a) HEIGHT OF WATER ABOVE TANK IN BACK FILL AREA = _____" (b) DENSITY OF PRODUCT IN TANK (FROM TABLES) = _____ LBS. / CU. IN. (c) DENSITY OF EXTERNAL WATER = <u>0.036</u> LBS. / CU. IN. (d) ADDITIONAL HEAD REQUIRED _____" x <u>.036</u> ÷ _____ = _____" 12(a) 12(c) 12(b)
FILL PIPE EXTENSION	FILL PIPE EXTENSION (ADDITIONAL HEAD - FILL PIPE LENGTH + 8") _____ - _____ + 8" = _____" EXTENSION PIPE REQUIRED 12(d) 10(e)
EFFICIENT OF PANSION	(a) API GRAVITY <u>33.5</u> AT <u>77</u> °F; (b) API GRAVITY AT 60°F <u>32.3</u> (c) COEFFICIENT OF EXPANSION <u>.00045243</u> NOTE: THE API GRAVITY METHOD APPLIES ONLY TO PETROLEUM HYDROCARBONS. A LIST OF COEFFICIENTS FOR COMMON CHEMICALS IS APPENDED IN OPERATING INSTRUCTIONS.
CALCULATIONS	(a) START TEST <u>12:50</u> HRS. (b) END TEST <u>1:20</u> HRS. (c) TEST TIME <u>90</u> MINS. (d) SLOPE OF "BEST-FIT" LINE DURING TEST <u>0.000666</u> °F PER MINUTE (e) TEMPERATURE CHANGE DURING TEST (SLOPE OF "BEST-FIT" LINE x TEST TIME) <u>0.000666</u> x <u>90</u> = <u>0.06</u> °F 15(d) 15(c) (f) VOLUME CHANGE DUE TO TEMPERATURE (ACTUAL CAPACITY x TEMP. CHANGE x COEFF OF EXPANSION) <u>3000</u> x <u>0.06</u> x <u>.00045243</u> = <u>0.008</u> GALS 10(b) 15(e) 14(c) (g) TOTAL PRODUCT ADDED / SUBTRACTED DURING TEST (SECTION 18, VOLUME ADDED / SUBTRACTED) END TEST COLUMN D - START TEST COLUMN D = VOLUME ADDED / SUBTRACTED <u>0.018</u> - <u>+1.0</u> = <u>+1.018</u> GALS END COLUMN D START COLUMN D LINE <u>27</u> LINE <u>9</u> (h) VOLUME CHANGE NOT DUE TO TEMPERATURE <u>0.008</u> + <u>0.018</u> = <u>0.026</u> GALS 15(f) 15(g) LEAK RATE (GALLONS PER HOUR) LEAK RATE = $\frac{0.026}{90} \times 60 = 0.017$ G.P.H. 15(h) x 60 15(c) TEST TIME
<p>THIS LEAK RATE <u>0.017</u> / DOES NOT EXCEED THE STANDARD OF 0.050 G.P.H. DESCRIBED IN NATIONAL FIRE PROTECTION ASSOCIATION BULLETIN N.F.P.A. 329.</p> <p>THIS LEAK RATE <u>0.017</u> / DOES NOT EXCEED THE STANDARD OF 0.100 G.P.H. WITH 95% PD AND 5% PFA DESCRIBED IN FEDERAL REGISTER SEPTEMBER 23, 1988.</p>	

JOB HARROW Bay DATE 7/17/91 TESTER John Hives  
 ADDRESS 5207 LAKE WASH BLVD NE TEST COMPANY NORTHWEST TANK TESTING

**YARROW BAY MARINA**  
 6207 LAKE WASHINGTON BLVD NE  
 KIRKLAND WA. 98033

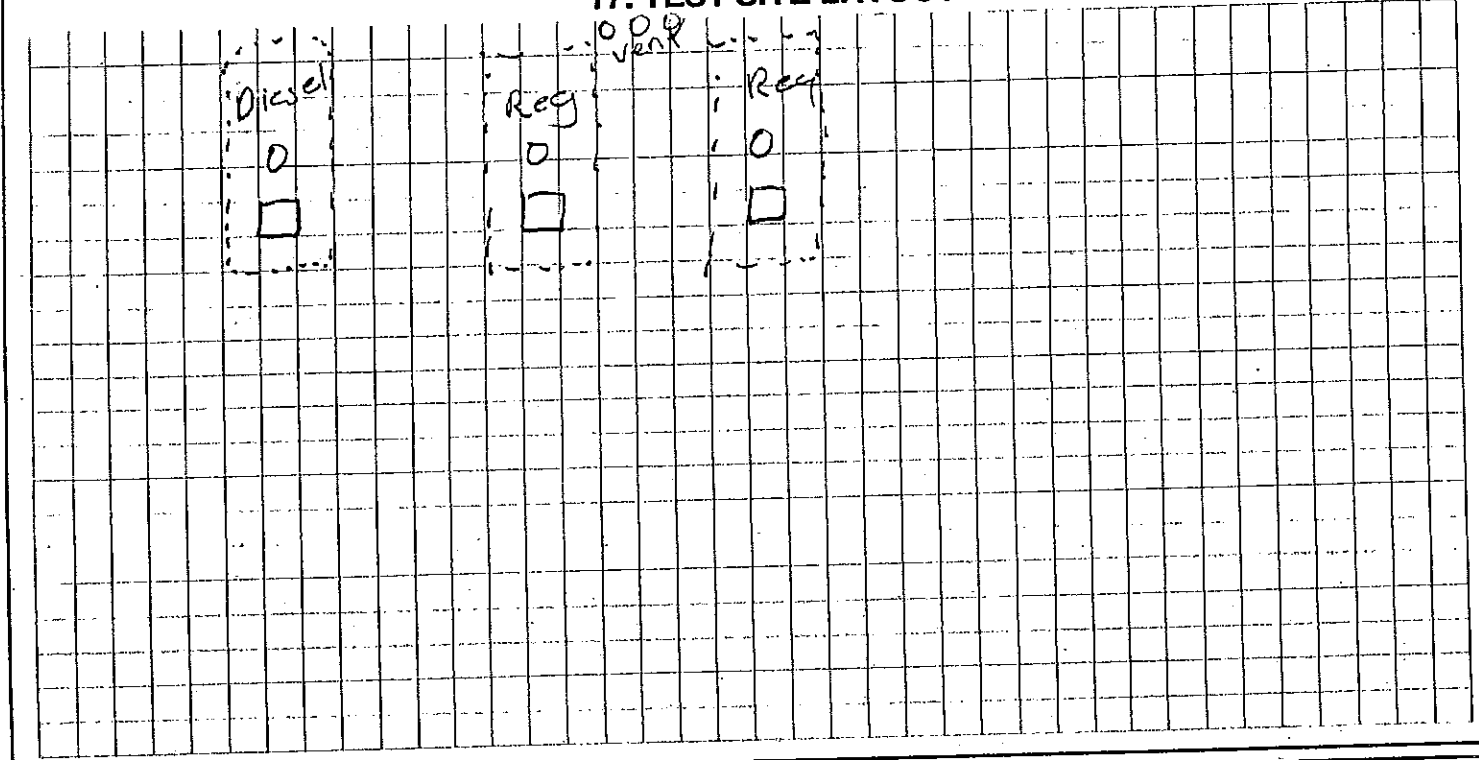


JULY 17, 1981  
 9,000 GAL DIESEL

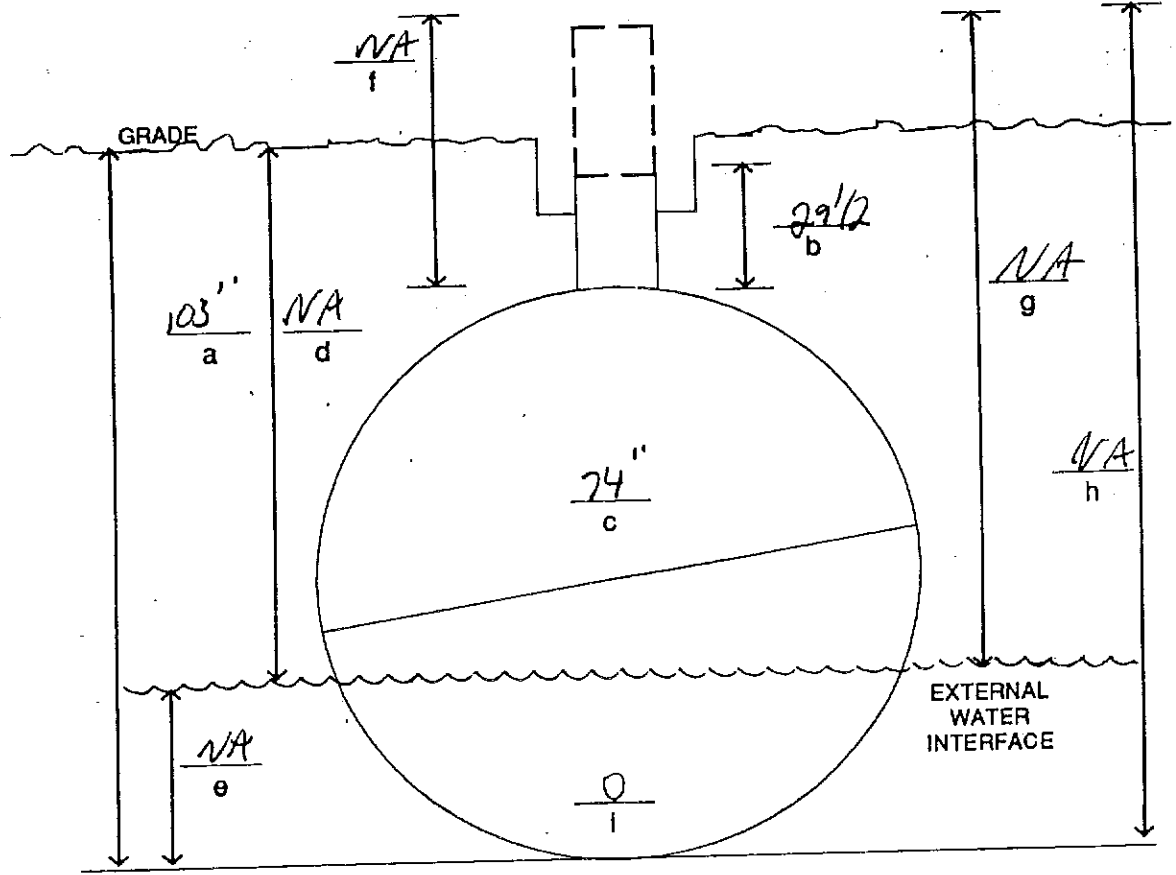


TEST COMPANY, NW 1/4 NK 123110  
 ADDRESS 5207 LAKE WASH BLVD NE

**17. TEST SITE LAYOUT**



**18. TANK DIMENSIONS**



- (a) = GRADE TO TANK BOTTOM
- (b) = EXISTING FILL PIPE
- (c) = TANK DIAMETER
- (d) = GRADE TO WATER INTERFACE
- (e) = WATER ABOVE TANK BOTTOM
- (f) = COMPENSATING HEAD
- (g) = TEST LEVEL TO WATER INTERFACE
- (h) = TEST LEVEL TO TANK BOTTOM
- (i) = WATER IN TANK

40009284  
100973

# Underground Storage Tank Self-Certification of Compliance Form

This form must be completed and signed for the underground storage tank identified below to receive a permit from the Department of Ecology. Without a permit, the tank cannot receive product or be operated (in the case of waste oil tanks, the tank cannot have the product removed).

Owner Name: Donald A. Wilcox Site Name: Yarrow Bay Marina

Owner Addr: 5207 Lk. Wash. Blvd. N.E. Site Addr: same

Kirkland, WA 98033

City                      State                      Zip                     

Tel No. (206) 822-6066 Tank Id. 3 (From Notif. Form)

### INFORMATION REGARDING FINANCIAL RESPONSIBILITY:

This must be completed for the Underground Storage Tank Permit to be validated.

1. Mark the box which accurately describes the UST identified by the above Tank ID number:

a.  The UST is owned by the state or federal government.

b.  The UST stores a non-petroleum hazardous substance.

c.  The UST is a deferred tank (listed on page 9 of the guide).

d.  None of the above.

2. Financial Responsibility Compliance Category. Enter the appropriate letter from page 6 or 7 of the Self-Certification Guide: D

3. Financial Responsibility Compliance Method(s). Enter the appropriate letter(s) from page 8 of the Self-Certification Guide: A

### SWORN STATEMENT:

I hereby swear under penalty of law that, based on my review of the UST Self-Certification Guide and my knowledge of the tank identified by the above Tank ID Number, this tank is in compliance with the applicable state requirements. Also, the information required above regarding financial responsibility requirements has been accurately entered for this tank. I understand that if this is a false statement the permit for the UST may be immediately revoked and I may be subject to penalties under Chapter 173-360 WAC.

print or type: Donald A. Wilcox, Owner

Name and Official Title of UST Owner or UST Owners Authorized Representative Donald A. Wilcox

Signature of UST Owner or Authorized Representative [Signature] Date Signed 8/11/91 Telephone Number 822-6066

[Do not detach. Return both parts to Ecology]



# SOILTEST AINLAY TANK 'TEGRITY TESTER™ FIELD TEST DATA

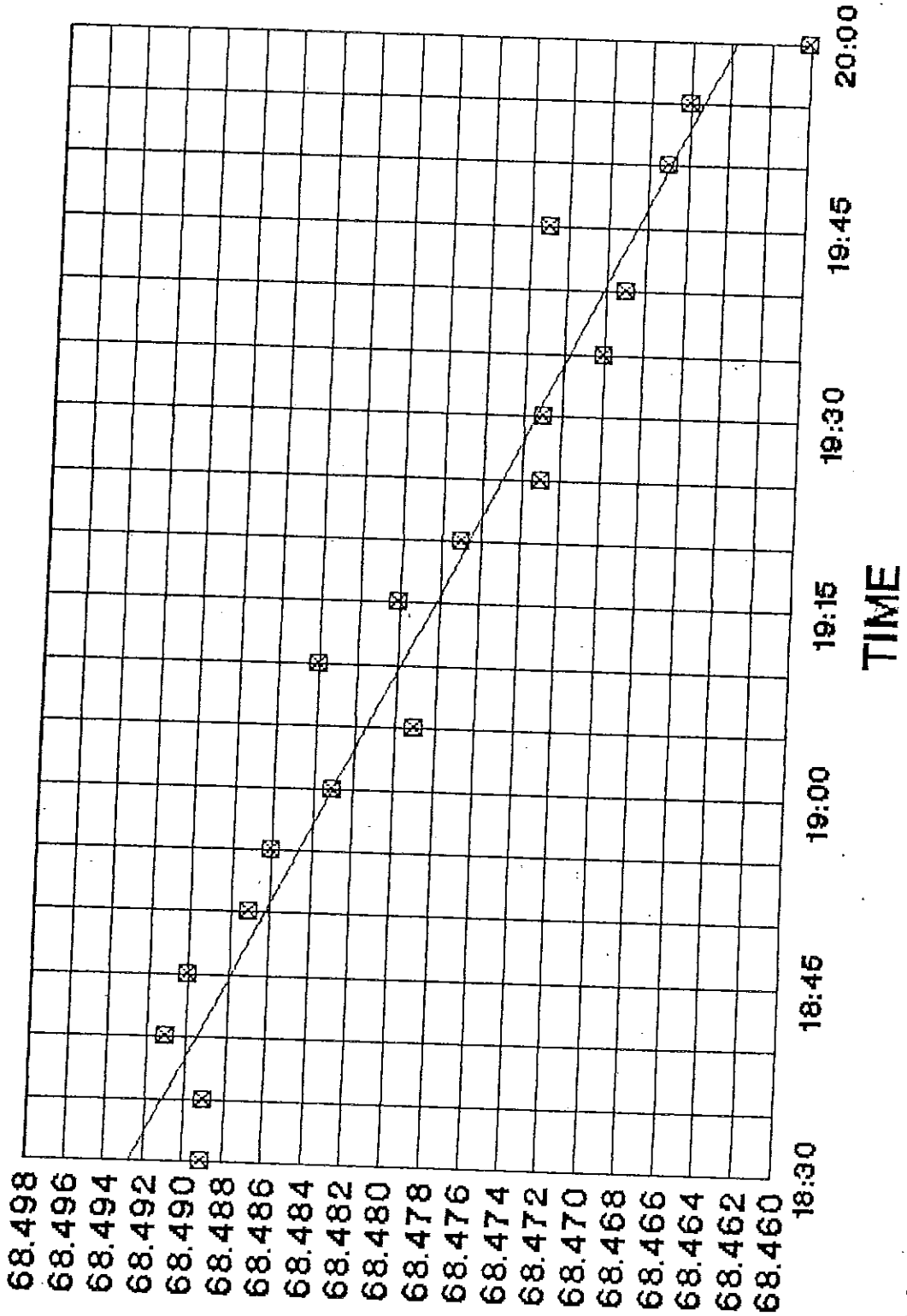
<b>1</b>	<b>TANK OPERATOR</b> NAME <u>YARROW Bay Marina</u>	<b>ADDRESS</b> <u>5207 Lake Washington Blvd</u> CITY <u>KIRKLAND</u> STATE <u>WA</u> ZIP <u>98033</u>	<b>PHONE</b> <u>( 1822-6066</u> <u>( ) -</u>		
<b>2</b>	<b>TANK SPECIFICATIONS</b> ID NUMBER _____ CAPACITY - GALS <u>6,000</u>	CONTENTS <u>Regular</u>	STEEL / GLASS <input type="checkbox"/> <input type="checkbox"/> UNKNOWN <input type="checkbox"/>	MANUFACTURER UNKNOWN <input type="checkbox"/>	AGE - YRS. UNKNOWN <input type="checkbox"/>
<b>3</b>	<b>WATER TABLE</b> DISTANCE FROM GRADE TO WATER INTERFACE IN BACKFILL AREA OF TANK _____ INS.				
<b>4</b>	<b>TEST SCHEDULE / TANK FILL UP</b> SCHEDULED DELIVERY DATE: <u>7 1221 91</u> , TIME _____ HRS. ACTUAL DELIVERY DATE: <u>7 1221 91</u> , TIME _____ HRS. TANK FILLED _____ HOURS BEFORE SCHEDULED TEST TIME* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS				
<b>5</b>	<b>TOP-OFF</b> DATE OF TOP-OFF: ___ / ___ / ___, TIME _____ HRS. AMOUNT _____ GALLONS TOP-OFF COMPLETED: _____ HOURS BEFORE TEST CALCULATION START* * NOTE: MUST EQUAL OR EXCEED MINIMUM TIME DESCRIBED IN OPERATING INSTRUCTIONS				
<b>6</b>	<b>OFFICIALS CONTACTED</b> NAME / AUTHORITY _____ PHONE ( ) - _____ _____ ( ) - _____ _____ ( ) - _____ RESPONSIBILITY OF OTHERS <input type="checkbox"/> / NOT APPLICABLE <input type="checkbox"/>				
<b>7</b>	<b>TEST RESULTS</b> THIS TEST WAS PERFORMED IN ACCORDANCE WITH PROCEDURES DESCRIBED IN SOILTEST'S INSTRUCTION BOOK AND MEETS THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S.E.P.A.) 40 CFR PART 280.				
	TEST DATE	LEAK RATE G.P.H.	DOES NOT EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD	DOES EXCEED 0.05 G.P.H. LEAK RATE ESTABLISHED THRESHOLD	
	<u>7 1231 91</u>	<u>+ .010</u> G.P.H.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>8</b>	<b>TECHNICIAN CERTIFICATION</b> THIS CERTIFIES THAT THE TANK DESCRIBED WAS TESTED BY THE UNDERSIGNED TECHNICIAN AND THAT THE STATED RESULT REPRESENTS THE STATE OF THE TANK WITH A 99% PROBABILITY OF DETECTION AND A 1% PROBABILITY OF FALSE ALARM ON THIS DATE TO THE BEST OF MY KNOWLEDGE.				
	SIGNED <u>[Signature]</u>		CERTIFICATION NO. <u>2249-B</u>		
	FOR (TEST COMPANY) <u>Northwest Tank Testing</u>		ISSUE DATE: <u>6 14 91</u>		
	ADDRESS <u>4411 SE 22<sup>nd</sup> Pl</u>				
	<u>Repton</u> CITY		<u>WA</u> STATE	<u>98056</u> ZIP	
<b>9</b>	<b>NOTES / OBSERVATIONS / COMMENTS</b>   INCLUDE SEPARATE SHEET IF MORE SPACE REQUIRED (SECTION 19)				

## SOILTEST AINLAY TANK TIGHTNESS TEST NO.

TANK I.D. DIMENSIONS	(a) TANK NO. <u>3</u> (b) CAPACITY <u>6,000</u> GALS (c) CONTENTS <u>REGULAR</u> <small>Actual</small>
	(d) DIAMETER <u>94</u> (e) FILL PIPE LENGTH <u>38</u> (f) GRADE TO BOTTOM <u>132</u>
	(g) GRADE TO TOP _____
INTERNAL WATER	WATER IN TANK PRIOR TO TEST <u>NA</u> = _____ GALLONS
ADDITIONAL HEAD	ADDITIONAL HEAD REQUIRED (HEIGHT OF EXTERNAL WATER X DENSITY OF WATER ÷ DENSITY OF PRODUCT)
	(a) HEIGHT OF WATER ABOVE TANK IN BACK FILL AREA = _____
	(b) DENSITY OF PRODUCT IN TANK (FROM TABLES) = _____ LBS. / CU. IN.
	(c) DENSITY OF EXTERNAL WATER = <u>0.036</u> LBS. / CU. IN.
(d) ADDITIONAL HEAD REQUIRED _____ x <u>.036</u> ÷ _____ = _____ <small>12(a) 12(c) 12(b)</small>	
FILL PIPE EXTENSION	FILL PIPE EXTENSION (ADDITIONAL HEAD - FILL PIPE LENGTH + 8")
	_____ + 8" = _____ " EXTENSION PIPE REQUIRED <small>12(d) 10(e)</small>
EFFICIENT OF EXPANSION	(a) API GRAVITY <u>60.5</u> AT <u>85</u> °F; (b) API GRAVITY AT 60°F <u>57.3</u>
	(c) COEFFICIENT OF EXPANSION <u>.00066891</u> <small>NOTE: THE API GRAVITY METHOD APPLIES ONLY TO PETROLEUM HYDROCARBONS. A LIST OF COEFFICIENTS FOR COMMON CHEMICALS IS APPENDED IN OPERATING INSTRUCTIONS.</small>
CALCULATIONS	(a) START TEST <u>18:30</u> HRS. (b) END TEST <u>20:00</u> HRS. (c) TEST TIME <u>90</u> MINS.
	(d) SLOPE OF "BEST-FIT" LINE DURING TEST + <u>1000032222</u> °F PER MINUTE
	(e) TEMPERATURE CHANGE DURING TEST (SLOPE OF "BEST-FIT" LINE x TEST TIME) <u>+1000032222</u> x <u>90</u> = <u>+10029</u> °F <small>15(d) 15(c)</small>
	(f) VOLUME CHANGE DUE TO TEMPERATURE (ACTUAL CAPACITY x TEMP. CHANGE x COEFF OF EXPANSION) <u>6000</u> x <u>+10029</u> x <u>.00066891</u> = <u>+100116</u> GALS <small>10(b) 15(e) 14(c)</small>
	(g) TOTAL PRODUCT ADDED / SUBTRACTED DURING TEST (SECTION 16, VOLUME ADDED / SUBTRACTED) END TEST COLUMN D - START TEST COLUMN D = VOLUME ADDED / SUBTRACTED <u>01-1158</u> - <u>01-1027</u> = <u>01-131</u> GALS <small>END COLUMN D START COLUMN D</small> LINE <u>25</u> LINE <u>7</u>
	(h) VOLUME CHANGE NOT DUE TO TEMPERATURE <u>+100116</u> + <u>01-131</u> = <u>01-015</u> GALS <small>15(f) 15(g)</small>
	LEAK RATE (GALLONS PER HOUR) LEAK RATE = <u>01-015</u> 15(h) x 60 = <u>01-010</u> G.P.H. <small>( 90 ) 15(c) TEST TIME</small>
	THIS LEAK RATE <del>01-010</del> / DOES NOT EXCEED THE STANDARD OF 0.050 G.P.H. DESCRIBED IN NATIONAL FIRE PROTECTION ASSOCIATION BULLETIN N.F.P.A. 329.  THIS LEAK RATE <del>01-010</del> / DOES NOT EXCEED THE STANDARD OF 0.100 G.P.H. WITH 95% PD AND 5% PFA DESCRIBED IN FEDERAL REGISTER SEPTEMBER 23, 1988.

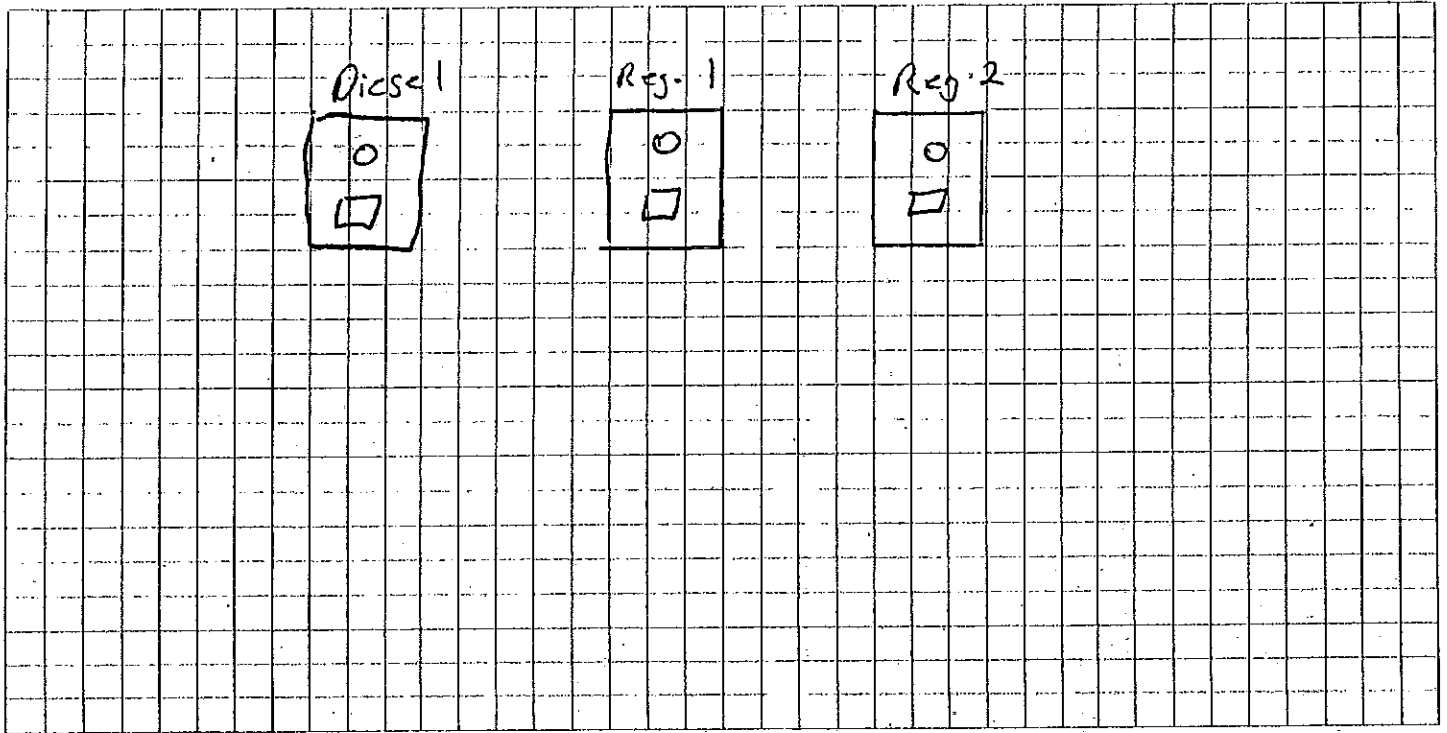
JOB YACRAW BAY DATE 7/23/91 TESTER John HINES  
 ADDRESS 5207 Lake Wash Blvd TEST COMPANY Northwest Tank Testing

**YARROW BAY MARINA**  
 5207 LAKE WASHINGTON BLVD NE  
 KIRKLAND WA 98033

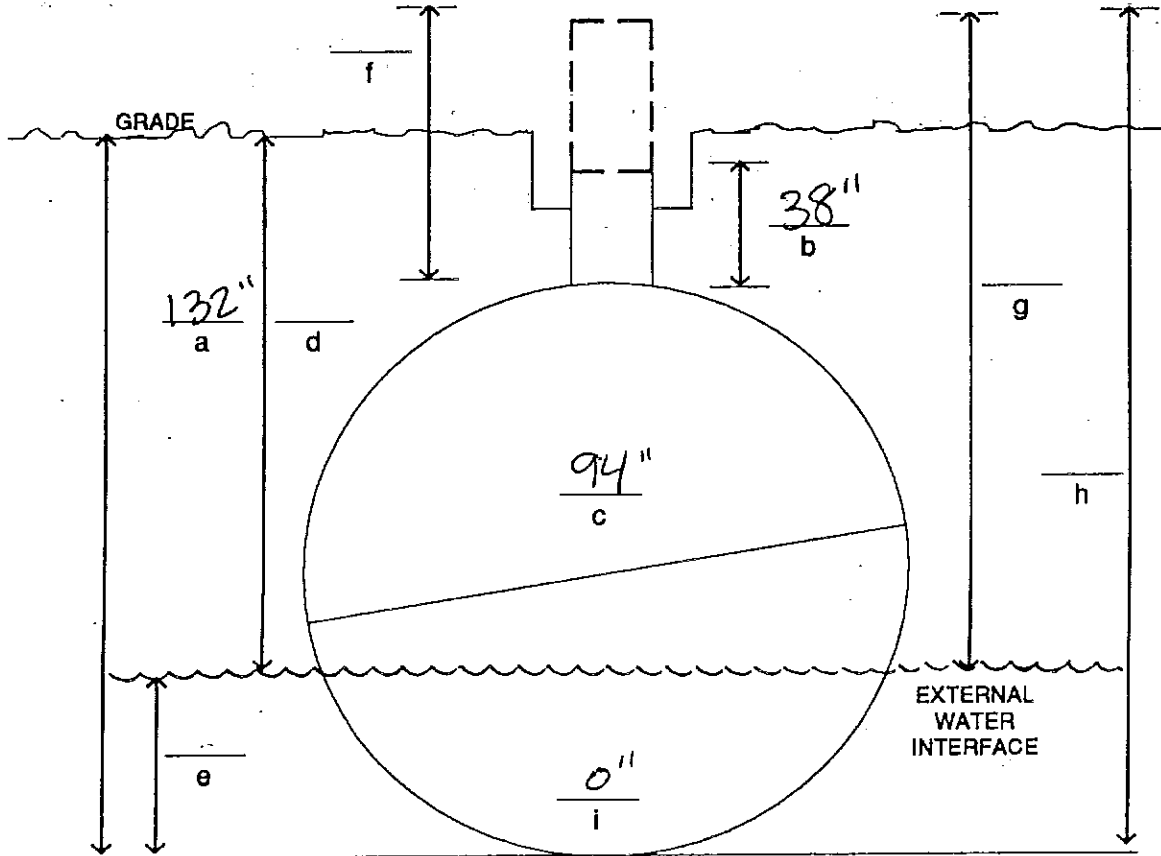


JULY 28, 1991  
 6.000 GAL REGULAR

**17. TEST SITE LAYOUT**



**18. TANK DIMENSIONS**



- (a) = GRADE TO TANK BOTTOM
- (b) = EXISTING FILL PIPE
- (c) = TANK DIAMETER
- (d) = GRADE TO WATER INTERFACE
- (e) = WATER ABOVE TANK BOTTOM
- (f) = COMPENSATING HEAD
- (g) = TEST LEVEL TO WATER INTERFACE
- (h) = TEST LEVEL TO TANK BOTTOM
- (i) = WATER IN TANK



# WASHINGTON STATE UNDERGROUND STORAGE TANK NOTIFICATION FORM



**IMPORTANT: PLEASE READ ALL INSTRUCTIONS ON PAGES 1-1 AND 1-2 BEFORE ENTERING INFORMATION.**

- ABOVEGROUND TANKS MUST BE REPORTED IF THE CONNECTED UNDERGROUND PIPING COMPRISES AT LEAST 10% OF THE OVERALL STORAGE SYSTEM TANK AND PIPING.
- A SEPARATE FORM MUST BE USED FOR EACH SITE, EXCEPT FOR SITES WITH ONLY ONE TANK EACH; SEE THE GENERAL INSTRUCTIONS (PAGE 1-2) FOR THE DEFINITION OF A SITE AND DETAILS ON REPORTING SITES WITH ONE TANK EACH.
- THERE IS ROOM IN SECTION VI FOR INFORMATION CONCERNING 15 TANKS. IF YOU HAVE MORE THAN 15 TANKS, PHOTOCOPY BOTH PAGES OF SECTION VI BEFORE ENTERING ANY INFORMATION. (IF YOU HAVE MORE THAN ONE SITE, EITHER OBTAIN MORE FORMS FROM THE DEPARTMENT OF ECOLOGY OR BE SURE TO ALSO PHOTOCOPY THIS PAGE.)
- PLEASE TYPE, OR PRINT IN INK, THE SIGNATURE UNDER "CERTIFICATION" (SECTION VI) MUST BE SIGNED IN INK.

### I. OWNERSHIP OF THE TANK(S)

Please enter information regarding the owner of the tank(s). If the ownership of the tank(s) is uncertain, enter information regarding the owner of the property where the tanks are located, or information regarding the former owner of the tanks. Please circle the correct letter, indicating who the information given below refers to:

- A. OWNERSHIP UNCERTAIN
- B. CURRENT OWNER OF TANK(S)
- C. FORMER OWNER OF TANK(S)
- D. PROPERTY OWNER
- E. OTHER (PLEASE SPECIFY): \_\_\_\_\_

Owner Name (Corporation, Individual, Public Agency, or Other Entity)  
 DONALD A WILCOX

Street Address  
 5207 LK WASHINGTON BLVD NE

City  
 KIRKLAND

State  
 WA

ZIP Code  
 98033

Type of Owner or Facility: CIRCLE CORRECT CODE(S)	CODE	TYPE	CODE	TYPE	CODE	TYPE
A. Service Station		G. Industrial/Manufacturing		M. City/Town		S. Port District
B. Bulk Plant		H. Private Institution		N. County		T. Utility District
C. Petroleum Distributor		I. Residence (Non-Farm)		O. State		U. Fire Dept./District
D. Convenience Store		J. Farm		P. Federal (Military)*		V. Other Special Service District (e.g., sewer, water)
E. Auto Dealer		K. Airport		Q. Federal (Non-Military)*		W. Other
F. Other Commercial/Retail		L. Marina		R. School District		

\*FEDERAL FACILITIES ONLY: Please give year GSA Facility ID Number (Building Number),

### II. CONTACT PERSON AT THE TANK LOCATION

The contact person should be the individual responsible for regularly monitoring the operation of the tank(s).

Name (if same as Section I, mark box here)  DENNIS BOBKO

Job Title  
 GENERAL MANAGER

Area Code  
 206-822-6066

Phone Number  
 206-822-6066

### III. SITE OF THE TANK(S)

(If the same as Section I, mark box here.)  See the General Instructions (page 1-2, 2.a.) for the definition of a site.

Facility Name or Company Site Identifier, as applicable, (IF THE FACILITY IS OPERATED BY A LEASEE OR RENTER, THE NAME OF THE CORPORATION, INDIVIDUAL, PUBLIC AGENCY, OR OTHER ENTITY WHICH OPERATES THE FACILITY SHOULD BE ENTERED HERE.)

Street Address or State Road where the tanks are located. (IF NO STREET ADDRESS OR STATE ROAD, PLEASE ENTER THE LONGITUDE AND LATITUDE OR TOWNSHIP, RANGE, AND QUARTER SECTION WHERE THE TANKS ARE LOCATED)

City

State

ZIP Code

County

Area Code

Phone Number

### IV. THE TOTAL NUMBER OF TANKS AT THIS SITE

1. Number of tanks containing petroleum, which are now in use: 3
2. Number of tanks which have stored petroleum, but are not now in use: \_\_\_\_\_
3. Number of tanks containing regulated chemicals, which are now in use: \_\_\_\_\_
4. Number of tanks which have stored regulated chemicals, but are not now in use: \_\_\_\_\_

TOTAL NUMBER OF TANKS 3

### V. CERTIFICATION (Please read and sign after completing Section VI.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents. To the best of my knowledge and belief, the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative or, in cases where the ownership is unknown, the name and title of the person signing the form. (PLEASE TYPE OR PRINT IN INK.)

Signature (PLEASE SIGN IN INK)  
 Dennis Bobko

Date Signed  
 8-11-91

100973  
 10009254

STATE USE ONLY







## **Kirkland Fire Department Information**

CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE • KIRKLAND, WA 98033-6189 • (206) 828-1143/1144 • TTY: 822-1244

### NOTICE OF VIOLATION

Occupancy Class \_\_\_\_\_ Date 3-1-93  
 ADDRESS 5207 Lake Washington Blvd PHONE 822-6606  
 BUSINESS OR BUILDING Tacoma Dry Cleaners SUITE/BLDG # \_\_\_\_\_  
 BUILDING OWNER Donald Wilcox PHONE 746-3583  
 ADDRESS 12436 Wilbur Santa Fe Blvd CITY Bellewa ZIP 98008  
 LESSEE/MANAGER Dennis Burke PHONE 641-4578  
 IN EMERGENCY, NOTIFY \_\_\_\_\_ PHONE \_\_\_\_\_

SYSTEMS PRESENT: Fire Alarm  Sprinkler  Halon  N/A   
 Hood and Duct System  Standpipe

THE FOLLOWING VIOLATIONS OF THE UNIFORM FIRE CODE WERE FOUND BY REPRESENTATIVES OF THIS DEPARTMENT AND ARE TO BE CORRECTED IMMEDIATELY:

Item No.	(See reverse side) CODE	CORRECTIONS REQUIRED	An inspector will return in about _____ days to reinspect		
			1st	2nd	3rd
1		Provide secondary containment for tanks next to main office (drain)	Y		
2		Remove materials under stairwell	Y		
3		Provide fire extinguisher upstairs 2A 1BC	Y		

ANY OVERLOOKED HAZARDOUS CONDITIONS AND/OR VIOLATIONS OF THE FIRE REGULATIONS DOES NOT IMPLY APPROVAL OF SUCH CONDITIONS OR VIOLATIONS. NON-COMPLIANCE WITH THIS NOTIFICATION IS SUBJECT TO CITATION.

SIGNATURE OF CONTACT [Signature]  
 FCI # 93706  
 UFC # \_\_\_\_\_  
 Business Lic # BVS0180

[Signature]  
 INSPECTOR FOR:  
 CITY OF KIRKLAND FIRE MARSHAL

ORIGINAL - Owner/Manager  
 YELLOW - Bureau  
 PINK - Inspector (or if no violations, send to Bureau)

Yes/No   Refer to Word Processing USE (\*) TO INDICATE REVISED CURRENT INFORMATION



KIRKLAND FIRE-BUILDING DEPARTMENT

12121 AVENUE • KIRKLAND, WA 98033 819 • TELE 845-1143 1144

Application for permit to perform service on underground storage tanks: to install, alter, remove, abandon, place temporarily out of service or otherwise dispose of any flammable liquid tank.

Name of contractor performing tank service B+C Equipment Co  
Address of contractor 20320 80th Ave S, Kent, Wa 98032  
Owner Paul Bernal Phone: Work 772-3590 Home 874-9743  
State UST Service Provider Number (Company) 5000007  
State UST Supervisor's License Number W001728  
(both numbers are required)

Site Address 5207 Lake Wash Blvd. N.E. Kirkland Wa  
Site Owner Verdon Bay Marina Phone: Work 822-6666 Home 822-6666  
Describe operation requiring permit The removal of 3 underground storage tanks

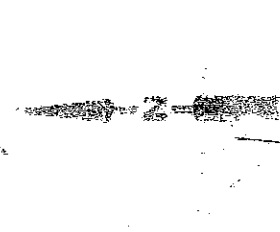
Dates service will be performed 2/24/92 - 2/27/92  
Description of tanks (number, size, contents; attach site plan)

- 1 tank - 6000 gallon Gasoline
- 1 tank - 6000 gallon Diesel
- 1 tank - 3000 gallon Gasoline

Applicant's name Mark L. Henry Company B+C Equipment Co  
Applicant's signature M. L. Henry Date 2/22/92

Submit application and pertinent information to:  
Bureau of Fire Prevention, Kirkland Fire Department

Approval: [Signature]  
Fire Dept Representative



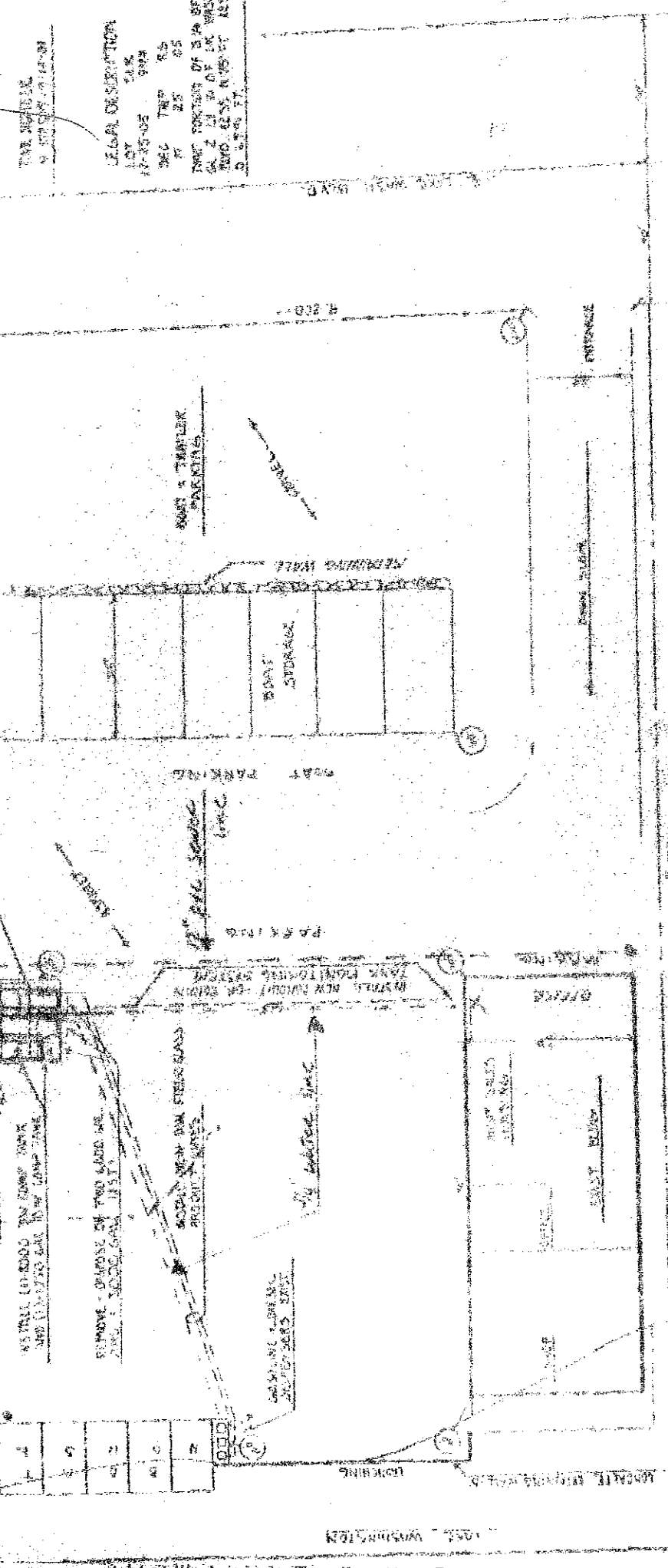
THE ABOVE  
IS A GENERAL  
DESCRIPTION

LEGAL DESCRIPTION  
LOT 10K  
ACRES - 9.48  
TWP. 15  
R. 25  
S. 25  
TWP. 15  
R. 25  
S. 25  
TWP. 15  
R. 25  
S. 25

150 LINDENWOOD  
- 10000 SQ. FT.  
- 10000 SQ. FT.

150 LINDENWOOD  
- 10000 SQ. FT.  
- 10000 SQ. FT.

150 LINDENWOOD  
- 10000 SQ. FT.  
- 10000 SQ. FT.



150 LINDENWOOD  
- 10000 SQ. FT.  
- 10000 SQ. FT.

150 LINDENWOOD  
- 10000 SQ. FT.  
- 10000 SQ. FT.

0114  
0120  
0130

UFC92-0006



CITY OF

KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE • KIRKLAND, WA 98033-6189 • (206) 828-1143/1144 • TTY: 828-1244

Application for permit to perform service on underground storage tanks:  
to install, alter, remove, abandon, place temporarily out of service or otherwise dispose  
of any flammable liquid tank.

Name of contractor performing tank service B & C EQUIPMENT CO.  
Address of contractor 20320 BOTH AVE. SO. KENT, WA. 98032  
Owner S.P. CAUGHAN V.P. Phone: Work 812-8890 Home 874-0333  
State UST Service Provider Number (Company) 5000007  
State UST Supervisor's License Number MARK HENRY #00476  
(both numbers are required)

~~REMOVED~~

Site Address 5205 LK. WASH. BLVD. N.E.  
Site Owner YARROW BAY MARINA Phone: Work 822-6066 Home ???  
Describe operation requiring permit UNDERGROUND STORAGE TANK  
REMOVAL & INSTALLATION

Dates service will be performed 1-15-92 TO 2-29-92 PENDING PERMIT  
ISSUANCE  
Description of tanks (number, size, contents; attach site plan)

1- 6,000 GALLON GASOLINE REMOVE  
1- 6,000 GALLON GASOLINE ?  
1- 3,000 GALLON DIESEL DISPOSE

Applicant's name R. B. SHAFER Company B & C EQUIP. CO.  
Applicant's signature [Signature] Date 12-6-91

Submit application and pertinent information to:  
Bureau of Fire Prevention, Kirkland Fire Department

Approval \_\_\_\_\_  
Fire Dept. Representative

Rev 4-30-91

SHORELINE

80'

INSTALL OVERFILL

VENT RISER

R. 555+

POWER PANEL

INSTALL (1) 8000 DW COMP. TANK AND (1) 1750 GAL DW COMP. TANK

REMOVE & DISPOSE OF TWO 6000 GAL AND 1 3000 GAL TANKS

INSTALL NEW DW FIBER GLASS PRODUCT LINES

GAS LINE - DIESEL MAINLINE EXIST

ADJ. PLOT

INSTALL 5000 GPM FLOW RATE TANK

LAKE WASHINGTON

LAKE WASHINGTON

YACHT SALES LEASING

SHOP

OFFICE

EXIST. BLDG

OFFICE

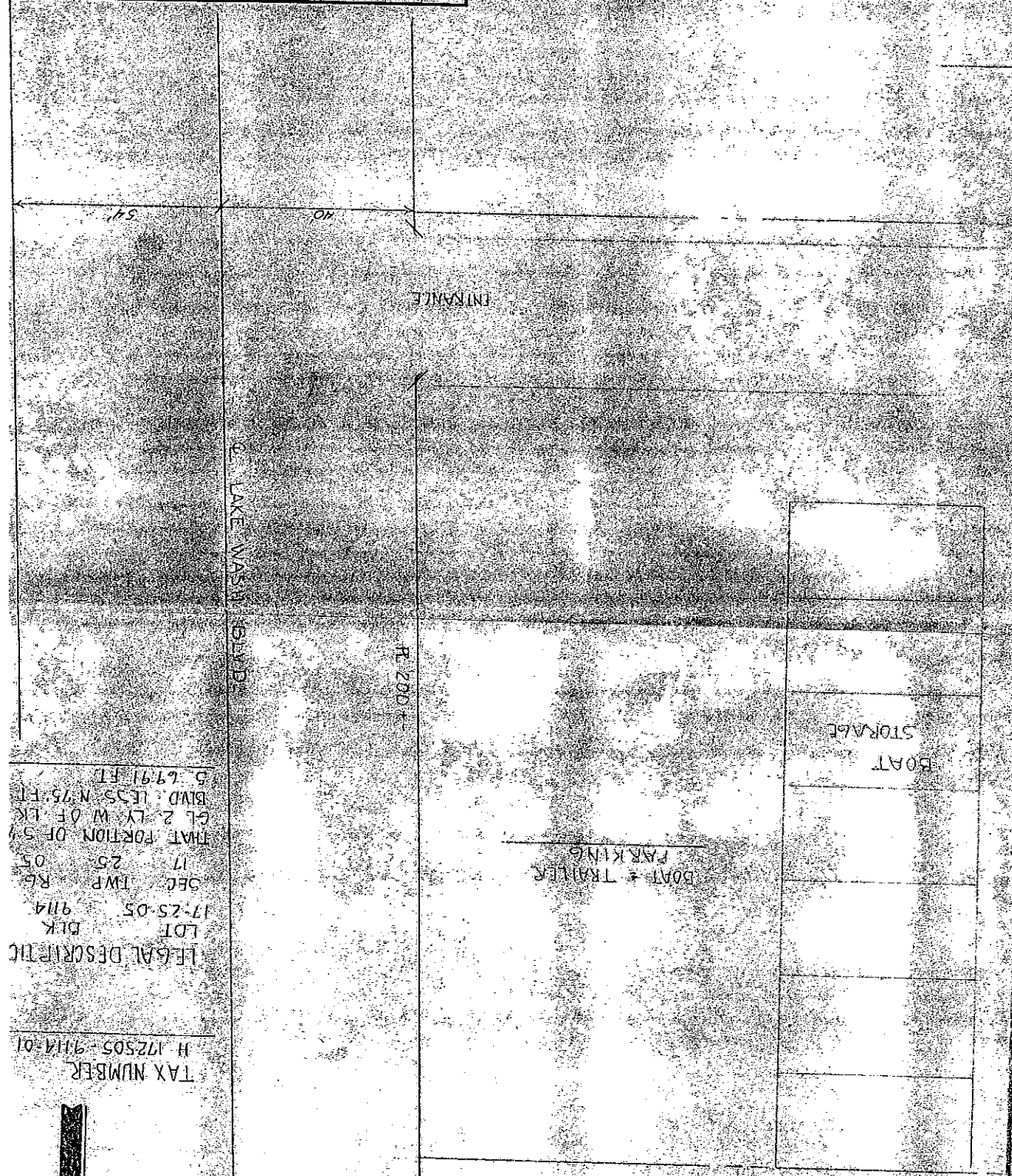
PARKING

R. 295+

APPROX 100' SHORELINE 1980 AERIAL PHOTO

PLOT SCALE

DRAWING NO. 172505-9114-01  
 PROPOSED UNDERGROUND TANK REPLACEMENT  
 KILKENNY, ILLINOIS 60135  
 APPROVED BY DENNIS WILCOX  
 DATE 9-9-01  
 SCALE 1/8" = 20'  
 5207 LAKE WASHINGTON BLVD. NE  
 WARRON BAY MARINA



LEGAL DESCRIPTION  
 LDI DLK  
 17-25-05 9114  
 SEC. TWP. R6  
 11 25 05  
 THAT PORTION OF 54  
 AC. 2 LY. W. OF LK  
 BLVD. LECS. N. 75. FT.  
 5.6791 FT.

TAX NUMBER  
 H 172505-9114-01

1. NEW 6" REINFORCED CONCRETE  
 PAD

UNITS AND  
 BOTH NEW TANKS



CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE · KIRKLAND, WASHINGTON 98033-6189 · (206) 828-1143/1144

August 27, 1990

Mr. Donald Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd. NE  
Kirkland, WA 98033

Dear Mr. Wilcox:

Thank you for your letter dated August 9, 1990. As long as you are not exceeding the 10 hours a week on areas of boats of not more than 9 square feet, we can consider it a limited spray area.

If your operation changes in any way, it may become necessary to require an automatic sprinkler system in the room.

I will expect the second exit, the ventilation tie-in to the lighting, and the exhaust duct to be corrected no later than December 31, 1990.

Thank you for your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Merrily Braucht".

Merrily Braucht  
Deputy Fire Marshal

MB:nam

cc: Building Department

CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE · KIRKLAND, WA 98033-6189 · (206) 828-1143/1144 FAX: 828-1290

August 1, 1990

Mr. Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd  
Kirkland, WA 98033

Dear Mr. Wilcox:

I have enclosed the section of the Uniform Fire Code 1988 Edition that addresses limited spraying areas. If you will write a letter to this Department indicating the nature of the work you are doing in your spray room, we may be able to consider it a limited spray area and eliminate the requirement for sprinklering.

Please tell us the frequency and amount that you do spray, what materials you use, and give us information on what materials are applied with a roller. Be as specific as possible.

When we were there yesterday, most of the flammable/combustible materials had been removed. If you keep 10 gallons or less on the premises, that amount doesn't have to be stored in an approved cabinet. If at any time you exceed that quantity, you must store it in an approved cabinet.

You also agreed to interconnect the lighting in the spray room with the mechanical ventilation, to provide a second exit, and to correct the problems with the exhaust duct.

In your letter to us, please indicate the time frame you are requesting to accomplish all of these items.

Sincerely,

Merrily Braucht  
Deputy Fire Marshal

Ken Carlson  
Building Division Manager

MB/KC:nam

CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE · KIRKLAND, WA 98033-6189 · (206) 828-1143/1144 FAX: 828-1290

July 20, 1990

Mr. Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd.  
Kirkland, WA 98033

Dear Mr. Wilcox:

On July 10, 1990, representatives of the Fire and Building Department inspected the above occupancy. The inspectors saw some 55-gallon drums that are outside the south end of the building. Some of these drums are not identified and are filled with some kind of substance. Inside the paint spray room there are several containers that appear to contain flammable/combustible materials. It will be necessary to fill out the enclosed application for storage/use of hazardous materials. More than 10 gallons will need to be stored in an approved storage cabinet.

Section 45.209 of the UFC 1988 Edition requires that all spray rooms shall be protected by an approved automatic fire extinguishing system.

Uniform Building Code Section 3320 requires the spray room to be provided with not less than 2 exits. The exit doors must be 3'6" min., swing in the direction of egress, and be separated by not less than one half of the greatest diagonal measurement of the spray room.

Uniform Mechanical Code Section 1107(j) requires that the spray room exhaust duct terminate: 30 feet from property lines; 10 feet from openings into the building; 6 feet from exterior wall or roofs; 30 feet from combustible walls or openings into the building which are in the direction of exhaust discharge; 10 feet above adjoining grade.

Uniform Building Code Section 104(c) and Uniform Mechanical Code Section 104(b) state that buildings/mechanical systems lawfully in existence at the time of the adoption of this code may have their use continued if such use was legal at the time of the adoption of this code, provided such continued use is not dangerous to life, health, or property.

In its present state, the spray room does indeed provide a threat to life, health, and property. As such, it is time to bring the spray room into compliance with today's codes.

Mr. Wilcox  
July 20, 1990  
Page Two

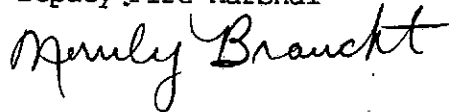
Please call within ten (10) days of your receipt of this letter to discuss how you may address this situation.

Sincerely,



Ken Carlson  
Building Division Manager

Merrily Braucht  
Deputy Fire Marshal



KC/MB:nam  
Enclosure



# YARROW BAY YACHT SALES AND SERVICE



5207 Lake Washington Blvd. N.E., Kirkland, Washington

**822-6066**

August 9, 1990

*Please  
return to  
Monday*

Ms. Merrily Braucht  
Deputy Fire Marshal  
City of Kirkland  
Fire/Building Department  
123 Fifth Avenue  
Kirkland, WA 98033-6189

Re: Paint and Spray Room

Dear Ms. Braucht:

Thank you for your letter of August 1, 1990, together with enclosures.

The paint-spray room is probably used three or four times a week for an estimated total of ten hours a week. Approximately 95% of the work done in the room is repair of damage to boats of areas considerably less than nine square feet. Fiberglassing is all hand laid and brushed on. The polyurthane paint and gelcoat is sprayed on--usually in a matter of ten or fifteen minutes. Only the bottom paint is applied with a roller--usually that is done outside.

Assuming we can be classified as a "Limited Spraying Area," we will project a completion of the interconnecting of the lighting in the spray room with the mechanical ventilation, provide a second exit, and correct the problem with the exhaust duct prior to the end of 1990. We are also planning to obtain another "approved" cabinet for the storing of flammable/combustible materials outside the spray room.

I am leaving my office on August 9, 1990, and will be gone for five or six weeks. If I do not have your reply when I return, I will contact you immediately.

Respectfully,

*Donald A. Wilcox*  
DONALD A. WILCOX  
Owner, Yarrow Bay Marina

RECEIVED

AUG 14 1990

CITY OF KIRKLAND

CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE · KIRKLAND, WA 98033-6189 · (206) 828-1143/1144 FAX: 828-1290

July 20, 1990

Mr. Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd.  
Kirkland, WA 98033

Dear Mr. Wilcox:

On July 10, 1990, representatives of the Fire and Building Department inspected the above occupancy. The inspectors saw some 55-gallon drums that are outside the south end of the building. Some of these drums are not identified and are filled with some kind of substance. Inside the paint spray room there are several containers that appear to contain flammable/combustible materials. It will be necessary to fill out the enclosed application for storage/use of hazardous materials. More than 10 gallons will need to be stored in an approved storage cabinet.

Section 45.209 of the UFC 1988 Edition requires that all spray rooms shall be protected by an approved automatic fire extinguishing system.

Uniform Building Code Section 3320 requires the spray room to be provided with not less than 2 exits. The exit doors must be 3'6" min., swing in the direction of egress, and be separated by not less than one half of the greatest diagonal measurement of the spray room.

Uniform Mechanical Code Section 1107(j) requires that the spray room exhaust duct terminate: 30 feet from property lines; 10 feet from openings into the building; 6 feet from exterior wall or roofs; 30 feet from combustible walls or openings into the building which are in the direction of exhaust discharge; 10 feet above adjoining grade.

Uniform Building Code Section 104(c) and Uniform Mechanical Code Section 104(b) state that buildings/mechanical systems lawfully in existence at the time of the adoption of this code may have their use continued if such use was legal at the time of the adoption of this code, provided such continued use is not dangerous to life, health, or property.

In its present state, the spray room does indeed provide a threat to life, health, and property. As such, it is time to bring the spray room into compliance with today's codes.

Mr. Wilcox  
July 20, 1990  
Page Two

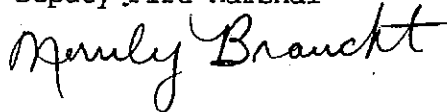
Please call within ten (10) days of your receipt of this letter to discuss how you may address this situation.

Sincerely,



Ken Carlson  
Building Division Manager

Merrily Braucht  
Deputy Fire Marshal



KC/MB:nam  
Enclosure

**Limited Spraying Areas**

Sec. 45.207. Limited spraying areas commonly known as "spotting" or "touch-up" areas are less hazardous than quantity production spray-finishing operations and may be approved by the chief, provided they conform to the following requirements:

1. Such areas are built and maintained in accordance with the Building Code requirements for a Group H, Division 4 Occupancy.
2. The size of job to be done in such areas does not exceed 9 square feet and is not of a continuous nature.  
 Note: It is the intent of Item 2 to allow only small jobs which in their entirety do not exceed 9 square feet.
3. Positive mechanical ventilation is installed providing a minimum of six complete air changes per hour. Such system shall meet the requirements of this code for handling flammable vapors.
4. All electrical wiring within 10 feet of the floor shall comply with Class I, Division 2 locations in accordance with the Electrical Code.

**Storage and Handling of Flammable or Combustible Liquids**

Sec. 45.208. (a) The storage and handling of flammable or combustible liquids shall be in accordance with Article 79 of this code and shall also conform to the provisions of this section.

(b) Where the quantity of liquid in 5-gallon and smaller containers, other than original sealed containers, exceeds a total of 10 gallons, it shall be stored in a storage cabinet conforming to Section 79.201 (g) or in storage or mixing rooms conforming to Section 79.202, 79.203, or 79.804.

(c) Original closed containers, approved portable tanks, approved safety cans or a properly arranged system of piping shall be used for bringing flammable or combustible liquids into spray-finishing areas. Open or glass containers shall not be used.

(d) Containers supplying spray nozzles shall be of closed type or provided with metal covers kept closed. Containers not resting on floors shall be on noncombustible supports or suspended by wire cables. Containers supplying spray nozzles by gravity flow shall not exceed 10 gallons capacity.

(e) All containers or piping to which is attached a hose or flexible connection shall be provided with a shutoff valve at the connection. Such valves shall be kept shut when not in use.

(f) Heaters shall not be located in spray booths nor other locations subject to the accumulation of deposits or combustible residue.

(g) If flammable or combustible liquids are supplied to spray nozzles by positive displacement pumps, pump discharge line shall be provided with an approved relief valve discharging to pump suction or a safe detached location.

(h) When a flammable mixture is transferred from one portable container to another, a bond shall be provided between the two containers, one of which shall

be grounded. Piping systems for Class I or II grounded.

**Fire-protection Equipment**

Sec. 45.209. (a) All spray booths or spray rooms shall be equipped with an approved automatic fire-extinguishing system.

(b) Portable fire-protection equipment shall be provided as provided for extrahazardous occupancies in U.

(c) Space within spray booth on the downstream side shall be protected with approved automatic sprinklers.

**Operations and Maintenance**

Sec. 45.210. (a) All spraying areas shall be kept free of combustible residues as practical, with necessary.

(b) Scrapers, spuds or other such tools used for cleaning shall be of nonsparking material.

(c) Residue scraping and debris contaminated equipment shall be immediately removed from premises and properly disposed.

(d) The use of solvents for cleaning operations shall be limited to Class III liquids, except solvents with flash point above 100°F. Solvents used in spraying operations may be used for cleaning equipment, provided such cleaning is conducted in a spray booth where the equipment is operating during cleaning.

(e) Spray booths shall not be alternately used for spraying and for storage of materials where the combination of the material and the atmosphere is a potential ignition, unless all deposits of the first use are removed from the booth and exhaust ducts prior to spraying with a new material.

(f) Approved metal waste cans shall be provided for each spray booth and shall be immediately impregnated with finishing materials and all such cans shall be emptied immediately after use. The contents of waste cans shall be emptied at least once daily and at the end of each shift.

**Drying Apparatus**

Sec. 45.211. (a) Drying apparatus shall, in addition to the requirements of this article, comply with the applicable provisions of the International Building Code and Industrial Baking and Drying Ovens.

(b) Spray booths, rooms or other enclosures used for drying shall not be alternately used for the purpose of drying to cause a material increase in the surface temperature of the enclosure.

(c) Except as specifically provided in Section 45.211, heating systems having open flame shall not be installed in a spraying area as defined



CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE KIRKLAND, WA 98033-6189 (206) 828-1143/1144 FAX: 828-1290

August 1, 1990

**COPY**  
Mr. Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd  
Kirkland, WA 98033

Dear Mr. Wilcox:

I have enclosed the section of the Uniform Fire Code 1988 Edition that addresses limited spraying areas. If you will write a letter to this Department indicating the nature of the work you are doing in your spray room, we may be able to consider it a limited spray area and eliminate the requirement for sprinklering.

Please tell us the frequency and amount that you do spray, what materials you use, and give us information on what materials are applied with a roller. Be as specific as possible.

When we were there yesterday, most of the flammable/combustible materials had been removed. If you keep 10 gallons or less on the premises, that amount doesn't have to be stored in an approved cabinet. If at any time you exceed that quantity, you must store it in an approved cabinet.

You also agreed to interconnect the lighting in the spray room with the mechanical ventilation, to provide a second exit, and to correct the problems with the exhaust duct.

In your letter to us, please indicate the time frame you are requesting to accomplish all of these items.

Sincerely,

Merrily Braucht  
Deputy Fire Marshal

Ken Carlson  
Building Division Manager

MB/KC:nam

CITY OF



KIRKLAND  
FIRE/BUILDING DEPARTMENT

123 FIFTH AVENUE · KIRKLAND, WASHINGTON 98033-6189 · (206) 828-1143/1144

August 27, 1990

Mr. Donald Wilcox  
c/o Yarrow Bay Marina  
5207 Lake Washington Blvd. NE  
Kirkland, WA 98033

Dear Mr. Wilcox:

Thank you for your letter dated August 9, 1990. As long as you are not exceeding the 10 hours a week on areas of boats of not more than 9 square feet, we can consider it a limited spray area.

If your operation changes in any way, it may become necessary to require an automatic sprinkler system in the room.

I will expect the second exit, the ventilation tie-in to the lighting, and the exhaust duct to be corrected no later than December 31, 1990.

Thank you for your cooperation.

Sincerely,

Merrily Braucht  
Deputy Fire Marshal

MB:nam

cc: Building Department

3-VI0 207K  
COMPLETED  
9-9-86

GREATER KIRKLAND DEPARTMENT OF FIRE SERVICES  
123 Fifth Avenue  
Kirkland, Washington 98033-6189  
828-1144

August 1, 1986

YARROW BAY MARINA  
5207 Lake Washington Blvd.  
Kirkland, WA 98033

Donald Wilcox, Owner/Manager

Phone: 822-6066

Re: Inspection No. 2331-86

In order that we reduce, to a reasonable degree, the threat to life and property from fire and explosion, we have adopted the Uniform Fire Code. In keeping with nationally recognized practice, our inspectors check for conditions hazardous to life and property in the use and/or occupancy of property or premises.

In our recent inspection of your premises we find the following items are not in accordance with that Code or the standards and ordinances adopting that Code:

- ✓ 1. Properly refill, recharge, and tag the following rated fire extinguisher(s) in the following locations: The 3A 30B:C extinguisher located at the north end of first dock.
- ✓ 2. All compressed gas cylinders in service or in storage shall be adequately secured to prevent falling or being knocked over. Ref. Oxygen bottle in shop.
- ✓ 3. Remove and/or properly dispose of all accumulations of combustible materials from beneath the rear stairwell.

Because the above items represent a potential threat, they shall be corrected. A reasonable time will be allowed to correct these items depending on the degree of hazard. An inspector from this department will again call on you in thirty (30) days from the above date, or soon thereafter, to verify the correction of these items.

Any overlooked hazardous condition and/or violation of the fire hazard regulations does not imply approval of such condition or violation.

Noncompliance with this notification constitutes a misdemeanor and is subject to a citation.

We hope that we can become partners in our effort to reduce fire damage in our area. Thank you for immediate attention.

Steve Karthas,  
Inspector  
For: Robert H. Ely,  
Director of Fire Services

GREATER KIRKLAND DEPARTMENT OF FIRE SERVICES

City/County of KIRKLAND

2331-86-3



INSPECTOR'S REPORT  
MERCANTILE AND MANUFACTURING

Date 7-17-86

New Business \_\_\_\_\_ Revised \_\_\_\_\_ No Change

Business or Building YARROW BAY MARINA Phone 822-6066

Address 5207 LAKE WASH. BLVD.

Leasee (or Manager) DONALD WILCOX

Leasee's Address 2436 WEST LAKE SAM. S.E. Phone 746-3583 *sent to address 8/1/86*

Building Owner DONALD WILCOX

Owner's Address 2436 W. LAKE SAM. S.E. Phone 746-3583

In case of Emergency Notify: PENNIS BORTKA Phone 841-6578

	U.B.C. Occupant Class	Square Feet
Basement Occupant		
1st Floor	H-2	2500
2nd Floor	B-2	2,500
3rd Floor		
4th Floor		

Type of Building Construction (UBC) \_\_\_\_\_

Is Certificate of Occupancy Posted (City) # \_\_\_\_\_ Date \_\_\_\_\_ Yes No N/A

Properly protected from exposures YES

Type of business: MARINA

ANY NEGATIVE ANSWER WILL REQUIRE THAT A VIOLATION BE WRITTEN

GENERAL CONDITIONS

	Check		
	Yes	No	N/A
<u>Cleanliness and Order</u>			
1. Are all accumulations of combustible refuse or rubbish removed from the premises or stored safely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are all oily rags or waste or other greasy materials kept in approved metal waste cans?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are waste smoking materials disposed of properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Maintenance</u>			
4. Are all exit doors unencumbered and maintained in operable condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are all self-closing fire doors kept closed and in operable condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are all devices of automatic closing fire doors in operable condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are all fire escapes free from obstructions and properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(Storage and Handling of Flammable Liquids cont'd.)

Check  
Yes    No    N/A

23. List types and quantities of flammable or combustible liquids normally kept on hand:

TYPE	QUANTITY	SIZE
<u>GASOLINE</u>	<u>2</u>	<u>6000 GALS</u>
<u>DIESEL</u>	<u>1</u>	<u>4000 GALS</u>
<u>PAINT</u>	<u>—</u>	<u>5 GALS</u>

24. Are proper types and sizes of fire extinguishers provided for those areas where flammable or combustible liquids are kept or used? Reference N.F.P.A. #10 (Page 10-12 through 10-14)

✓    —    —

25. Are adequate warning signs, i.e. "FLAMMABLE-KEEP FIRE AWAY" provided?

✓    —    —

26. Is proper Fire Department permit posted in accordance with Sec. 15.103 of the UFC?

✓    —    —

Liquefied Petroleum Gases

27. Are bottled gas cylinders (inside or outside) chained to an approved cart or stationary object?

—    ✓    —

28. Is proper Fire Department permit posted in accordance with Sec. 8.103 of the UFC?

✓    —    —

Lighting and Electrical Equipment

29. Are circuit breakers/fuses labeled indicating which area served?

✓    —    —

30. Is adequate clearance maintained in front of electrical control panels? (30 inches minimum)

✓    —    —

31. Are covers of fuse and switch boxes kept closed?

✓    —    —

32. Does the premises appear to be free from defective electrical wiring? (If answer is "No", complete FD-44)

✓    —    —

Fire Protection

33. Are all portable fire extinguishers adequate in size and number?

✓    —    —

34. List all extinguishers on premises:

Number	Type	Size	Location
<u>6</u>	<u>DRY CHEM</u>	<u>3A30BC</u>	<u>DOCK</u>
<u>3</u>	<u>DRY CHEM</u>	<u>4A60BC</u>	<u>GAS DOCK - SHOP</u>
<u>2</u>	<u>DRY CHEM</u>	<u>2A40BC</u>	<u>DOCK - SHOP</u>

GREATER KIRKLAND DEPARTMENT OF FIRE SERVICES

123 Fifth Avenue  
Kirkland, Washington 98033-6189  
828-1144

July 16, 1985

YARROW BAY MARINA  
5207 Lake Washington Blvd.  
Kirkland, WA 98033

Donald Wilcox, Owner/Manager

Phone: 822-6066

Re: Inspection No. 888-85

The following violation(s) to the Fire Prevention Code/Uniform Fire Code were found by representatives of this department and are to be corrected in accordance with those standards and the Ordinances and Resolutions adopting those Standards.

1. Remove all flammable or combustible storage from under the outside stairway.
2. Properly refill, recharge, and tag the following rated fire extinguisher(s) in the following locations: north end Pier B.
3. Due to unsatisfactory conditions and inadequacy of the present horizontal standpipe system on the pier, a new system meeting the requirements of UBC Standard 38.2 (1982 edition) and our Operation Policy No. 2 shall be installed. Plans shall be submitted for approval prior to construction.

An inspector from this department will call on you thirty (30) days from the above date, or soon thereafter, to verify the correction of the above items. Any overlooked hazardous condition and/or violation of the fire regulations does not imply approval of such condition or violation. Non-compliance with this notification is a misdemeanor and is subject to citation.

Rex Lindquist,  
Inspector  
For: Robert H. Ely,  
Director of Fire Services

3823B/8478B:dc

3. Due to unsatisfactory condition and inadequacy of the present horizontal drainage system on the premises, a new system meeting the requirements of NBC Standard 33.2 (1992 edition) and one operating Policy No. 2 shall be installed. Plans shall be submitted for approval prior to construction.

(3 sets of 0.852  
with notes)

Perk  
P. P. # 7  
0.852  
W. P. # 1  
W. P. # 2  
W. P. # 3  
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W. P. # 98  
W. P. # 99  
W. P. # 100

GREATER KIRKLAND DEPARTMENT OF FIRE SERVICES

MB

City/County of KIRKLAND

888-85-3

INSPECTOR'S REPORT  
MERCANTILE AND MANUFACTURING

Date 6/27/85

New Business \_\_\_\_\_ Revised \_\_\_\_\_ No Change

Business or Building YARROW BAY MARINA Phone 822-6066

Address 5207 LAKE WASH. BLVD.

Leasee (or Manager) DONALD WILCOX

Leasee's Address 2436 WEST LK SAM. S.E. Phone 746-3583

Building Owner SAME

Owner's Address SAME Phone SAME

In case of Emergency Notify: SAME Phone SAME

SEND TO 1105

	U.B.C. Occupant Class	Square Feet
Basement Occupant		
1st Floor	B-2	5000
2nd Floor	B-2	3000
3rd Floor		
4th Floor		

Type of Building Construction (UBC) V N

Is Certificate of Occupancy Posted (City) # \_\_\_\_\_ Date \_\_\_\_\_ Yes No N/A

Properly protected from exposures no standpipe out of service

Type of business: \_\_\_\_\_

ANY NEGATIVE ANSWER WILL REQUIRE THAT A VIOLATION BE WRITTEN

GENERAL CONDITIONS

Cleanliness and Order

- |   | Yes | Check No                            | N/A                                 |
|---|-----|-------------------------------------|-------------------------------------|
| 1. Are all accumulations of combustible refuse or rubbish removed from the premises or stored safely? |     | <input checked="" type="checkbox"/> |                                     |
| 2. Are all oily rags or waste or other greasy materials kept in approved metal waste cans?            |     |                                     | <input checked="" type="checkbox"/> |
| 3. Are waste smoking materials disposed of properly?  |     |                                     | <input checked="" type="checkbox"/> |

Maintenance

- |   |                                     |  |                                     |
|---|-------------------------------------|--|-------------------------------------|
| 4. Are all exit doors unencumbered and maintained in operable condition?  | <input checked="" type="checkbox"/> |  |                                     |
| 5. Are all self-closing fire doors kept closed and in operable condition? |                                     |  | <input checked="" type="checkbox"/> |
| 6. Are all devices of automatic closing fire doors in operable condition? |                                     |  | <input checked="" type="checkbox"/> |
| 7. Are all fire escapes free from obstructions and properly maintained?   |                                     |  | <input checked="" type="checkbox"/> |



Heating and Air Conditioning Equipment

Yes Check No N/A

8. Is the heating boiler (or furnace) enclosed in a separate room with required fire-resistive partitions, with the ceiling similarly protected?

\_\_\_ \_\_\_

NOTE: 1. In Group A, E, I, or B Occupancies, where the largest piece of fuel equipment does not exceed 400,000 B.T.U. per hour input, fire-resistive separation is not required.

2. In Group H occupancies, 2 hour fire-resistive separation is required.

3. In Group R-1 occupancies, 1 hour fire-resistive separation is required. (A separation shall not be required for such equipment serving only one dwelling unit.)

9. Is a self-closing fire door provided at the opening into the boiler room? (See Item 8 for required locations)

\_\_\_ \_\_\_

10. Is all heating equipment including chimney, gas appliances, flues, smokepipes and hot air ducts in good serviceable condition and well maintained?

\_\_\_ \_\_\_

11. Is the proper size and type of fire extinguisher provided for the boiler room? Minimum 5 B:C

\_\_\_ \_\_\_

Kitchen or Cafeteria

12. Are cooking surfaces where grease or grease laden vapors are generated protected with automatic fire extinguishing systems? Sprinkler: \_\_\_ Dry Chem: \_\_\_ CO: \_\_\_

\_\_\_ \_\_\_

13. Is there a ventilating hood above the range and duct vented to the outside? Required on all commercial cooking establishments.

\_\_\_ \_\_\_

14. Is hood and duct free of excessive accumulation of grease?

\_\_\_ \_\_\_

15. Is the proper type and size of fire extinguisher provided? Minimum 10 B:C

\_\_\_ \_\_\_

Refrigerating Equipment

16. Are motors and machinery properly maintained and cleaned?

\_\_\_ \_\_\_

Smoking

17. Are "NO SMOKING" signs properly posted, if applicable?

\_\_\_ \_\_\_

Storage and Handling of Flammable Liquids

18. If an inside storage and handling room is used, does it meet the requirements of Sec. 15.404 of the UFC?

\_\_\_ \_\_\_

19. If inside storage cabinet(s) are used, do they meet the requirements of Sec. 15.403 of the UFC?

\_\_\_ \_\_\_

20. Are drums, barrels or tanks equipped with approved hand or electrical pumps for draw-off of liquids?

\_\_\_ \_\_\_

21. Are metal containers with self-closing metal lids provided for the storage of oily rags?

\_\_\_ \_\_\_

22. Are "NO SMOKING" signs properly posted in areas where flammable or combustible liquids are present?

\_\_\_ \_\_\_

(Storage and Handling of Flammable Liquids cont'd.)

Check  
Yes No N/A

23. List types and quantities of flammable or combustible liquids normally kept on hand:

TYPE	QUANTITY	SIZE
<i>gasoline</i>	<i>1</i>	<i>12,000</i>
<i>diesel</i>	<i>1</i>	<i>12,000</i>

24. Are proper types and sizes of fire extinguishers provided for those areas where flammable or combustible liquids are kept or used? Reference N.F.P.A. #10 (Page 10-12 through 10-14)

25. Are adequate warning signs, i.e. "FLAMMABLE-KEEP FIRE AWAY" provided?

26. Is proper Fire Department permit posted in accordance with Sec. 15.103 of the UFC?

Liquefied Petroleum Gases

27. Are bottled gas cylinders (inside or outside) chained to an approved cart or stationary object?

28. Is proper Fire Department permit posted in accordance with Sec. 8.103 of the UFC?

Lighting and Electrical Equipment

29. Are circuit breakers/fuses labeled indicating which area served?

30. Is adequate clearance maintained in front of electrical control panels? (30 inches minimum)

31. Are covers of fuse and switch boxes kept closed?

32. Does the premises appear to be free from defective electrical wiring? (If answer is "No", complete ED-44)

Fire Protection

33. Are all portable fire extinguishers adequate in size and number?

34. List all extinguishers on premises:

Number	Type	Size	Location
<i>4</i>	<i>D.C.</i>	<i>4A40BC</i>	<i>dock</i>
<i>4</i>	<i>D.C.</i>	<i>3A30BC</i>	<i>dock</i>
<i>1</i>	<i>"</i>	<i>"</i>	<i>Wldg</i>
<i>1</i>	<i>"</i>	<i>4A40BC</i>	<i>"</i>
<i>1</i>	<i>"</i>	<i>5A40BC</i>	<i>"</i>
<i>1</i>	<i>"</i>	<i>4A40BC</i>	<i>Gas pumps</i>

(Fire Protection cont'd.)

	Check		N/A
	Yes	No	
35. Are all fire extinguishers properly charged and maintained?		<input checked="" type="checkbox"/>	
36. Where sprinkler systems are installed:			
(a) Are all sprinklers free and unobstructed?			<input checked="" type="checkbox"/>
(b) Are sprinkler heads free from coats of paint or corrosion?			<input checked="" type="checkbox"/>
(c) Are spare sprinklers and sprinkler wrenches kept in reserve?			<input checked="" type="checkbox"/>
(d) Are all sprinkler valves in open position?			<input checked="" type="checkbox"/>
(e) Is proper clearance below sprinkler heads maintained? (Minimum 18" in normal conditions, minimum 36" in high piled stock.) See Sec. 35.102 UFC.			<input checked="" type="checkbox"/>
(f) Are caps installed on the FD siamese connection?			<input checked="" type="checkbox"/>
(g) Is operating wrench attached to FI valve?			<input checked="" type="checkbox"/>

Hazardous Chemicals

- 37. Are all hazardous chemicals stored properly? Reference Article 19, 1976 UFC.
- 38. Is proper Fire Department permit posted in accordance with Sec. 19.102 of the UFC?
- 39. List types and quantities of hazardous chemicals normally kept on hand or those of questionable hazardous nature:

TYPE	QUANTITY
<i>none</i>	<i>none</i>

Place of Public Assembly

- 40. Is the occupancy load posted? If so, what is it:

Maintenance of Exit Ways

- 41. Does each story have the required number of exits?
- 42. Are exits illuminated and signs provided and illuminated in accordance with Sec. 10.113 of the UFC?

JURISDICTIONAL REPORT MADE TO Bureau DATE 6/27/85

Remarks: *violations are:*

1. A-1 under the outside stairway
2. F-4 north end pier B
- ~~3. A hydrostatic test shall be performed on the standpipe system and the test results forwarded to the fire department.~~
- ~~4. The fire department connection to the standpipe shall be re-installed and repaired.~~

\* Review 3 & 4 with #3 attached

Inspection made by: *[Signature]*

Business name Yarrow Bay Marina  
Address 5207 Lk. Wa. Blvd  
Owner D. Wilcox Phone (W) 822-6066 (H) same  
Manager D. W. Bortko Phone (W) same (H) 641-6578  
Type of Business Marina sales and service  
Operation Requiring Permit gasoline sales

**HAZARDOUS MATERIALS**

Material	Number and Size of Containers
Solvent, 1 gal	<input type="text"/>
Gasoline, 1-12,000 u.g. tank	<input type="text"/>
Diesel, 1-12,000 u.g. tank	<input type="text"/>
Resin, 5 gal	<input type="text"/>
Acetone, 5 gal	<input type="text"/>
Paint, 5 gal	<input type="text"/>
Oil, used, 55 gal	<input type="text"/>

Permit No. x Issue date \_\_\_\_\_

← → For info on hazards, see **Codebreaker**

*750 Δ painted  
around*

# FIRE DEPARTMENT

CITY OF KIRKLAND

## PERMIT

For Keeping, Storage, Use, Manufacture, Handling, Transportation, or other Disposition of Highly Inflammable, Combustible, or Explosive Materials, as stated below:

No. 233-84

September 11, 1984

(date)

TO WHOM IT MAY CONCERN:

By virtue of the provisions of the Fire Prevention Regulations of the CITY OF KIRKLAND YARROW BAY MARINA

(Name of Concern)

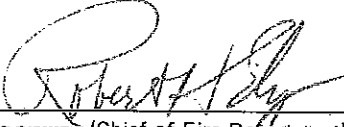
No. 5207 Street k. Wa. Blvd. N.E. conducting a Marina

(Business)

having made application in due form, and as the conditions, surroundings, and arrangements are, in my opinion, such that the intent of the Regulations can be observed, authority is hereby given and this PERMIT is GRANTED for Cleaning Sol. 1 Gal. Class II/Gas & Diesel Two tanks 12,000 Gal. total Class I & II Liquids/5 Gals. Resin (molding) Class I/Acetone 5 Gals. Class I/Paint 5 Gals. Class III/Storage for oil (used) 55 Gal. Drum Class IIIB/Storage & Use to Comply with Article 79, 1982

This PERMIT is issued and accepted on condition that all Regulations now adopted, or that may hereafter be adopted, shall be complied with.

This permit does not take the place of any License required by law and is not transferable. Any changes in the use or occupancy of premises shall require a new permit.

  
ROBERT H. ELI (Chief of Fire Department)

**THIS PERMIT MUST AT ALL TIMES BE KEPT POSTED ON THE PREMISES MENTIONED ABOVE**

APPLICATION TO MANUFACTURE, STORE, HANDLE OR KEEP FOR SALE EXPLOSIVES, HAZARDOUS CHEMICALS, HAZARDOUS MATERIALS, AND FLAMMABLE LIQUIDS AND GASES.

Date 9/4/84

To the Bureau of Fire Prevention; City of KIRKLAND

County of KING Dist. \_\_\_\_\_

Application is hereby made for a Permit to manufacture, store handle, or keep for sale license

by the undersigned in or on the premises at 5207 K WASH BLVD NE Street or Avenue the following quantities of; 1. Explosives; 2. Hazardous Chemicals; 3. Hazardous Materials; 4. Flammable liquids; 5. Gases.

- 1. CLEANING SOL. 1 gal CLASS II
- \* 2. GASOLINE - SERVICE STATION MARINE TANKS 12,000 GALS TOTAL
- 3. 5 GALS RESIN (MOLDING) CLASS II
- 4. ACETONE 5 GALS CLASS II
- 5. PAINT - 5 GALS CLASS II
- 6. STORAGE FOR OIL (USED) 55 gal DRUM CLASS III-B
- \* GAS & DIESEL CLASS II & III LIQUIDS

STORAGE AND USE TO COMPLY WITH ARTICLE 79, 1982 Uniform Fire Code

PRODUCT, QUANTITY, AND SIZE OF CONTAINERS ARE TO BE LISTED.

Conditions, surroundings, and arrangements are to be in accordance with Fire Prevention Regulations.

Dennis W. Butcher  
Signature of Applicant

Yarrow Bay Marina  
Name of Business or Concern

5207 K WASH BLVD NE  
Address of Business

KIRKLAND WA.

822-6066  
Phone Number

BUILDING DEPARTMENT APPROVAL: Yes  No

[Signature]

Complete plans and construction details must be filed on all major projects and when requested by an authorized representative of the Fire Department.

SEP 7 1984

KIRKLAND FIRE DEPT.

# TOWN OF HOUGHTON - BUILDING DEPARTMENT

## APPLICATION AND BUILDING PERMIT

Owner's Name	Date of Construction	Buy Dist.	Res. Dist.	Class.	Plan Filed Y/N	Fee of Permit	NO.

Application is hereby made for permit to do the following work:

*Removal of existing concrete foundation and replacement with new foundation.*

A *1 1/2* story *1 1/2* unit *1 1/2* Block of building will be *added* and *added* in height, in addition to *basement* *creation* *all* *is* *5* feet *to* *my* *existing* *lot* *line*. No part of the building may be more than *5* feet *to* *my* *existing* *lot* *line*. The under side of the joists must be at least *5* inches above the ground.

Owner's Address: *11111*  
 Contractor's Address: *11111*  
 Architect's Phone: *11111*

Application made *11/11/11* By *[Signature]* City Authorized Agent

Permit is hereby given to do the above described work according to the conditions herein and according to the approved plans and specifications pertaining thereto, subject to compliance with the Ordinances of the Town of Houghton.

Permit issued *11/11/11* By *[Signature]* BUILDING COMMISSIONER

Reinforcing steel must be inspected after placing and before covering. Be sure you are fully informed on the building and zoning laws before beginning your work.

Report and recommendations:

*[Handwritten notes and signatures]*

Chief Inspector

HIRAM L. TUTTLE  
Attorney at Law  
P. O. Box 622 ... Phone: VA 2-1646  
Kirkland, Washington

17 March 1962

District Engineer  
U. S. Army Engineer District, Seattle  
1519 South Alaskan Way  
Seattle, Washington

Re: Public Notice No. P-62-34  
26 February 1962, file NPSKS  
Yarrow Bay Marina

Gentlemen:

Reference public notice stated, I hereby object to the proposed work on the ground that it will constitute a substantial interference to public rights of navigation.

Yarrow Bay is a small shallow arm of Lake Washington surrounded entirely by private homes or unimproved land on all sides except its far north-eastern shore, from the Yarrow Bay Marina northward. My home adjoins the Yarrow Bay Marina on the south. This bay is unsuited to the use of any but small craft, and is extensively used by rowboats, small outboard craft, swimming floats, and as a children's recreational area. Due to the restricted area and shallow bottom, Yarrow Bay is unsuited to use by heavier craft.

In contrast, the north side of Yarrow Bay Marina and the adjacent shorelands open directly upon Lake Washington in an area adjacent to the Lake Washington Shipyards. This area is a deeper water area with open access, and containing none of the hazards to navigation mentioned in the preceding paragraph. The navigational approach to the Yarrow Bay Marina from the north is over waters already devoted in some degree to commercial boating, while the navigational approach from the south is over shallow waters in normal recreational use. Further, the approach from the south requires a craft approaching from Lake Washington to bear south, then east, then again north to enter the establishment, while an approach from the north would be more direct and less dangerous.

The plan on the reverse of Public Notice No. P-62-34 shows that the planned approach to the planned construction for more than 50 vessels would be from the south. I object to this feature of the plan in particular, and on that basis to the issuance of the requested permit to construct the pier and boat moorage facility requested or any part thereof. The present plan is in direct contrast to the impression given by Yarrow Bay Marina owners in previous discussion of their proposed improvements, in which they stated that their plan was to have all openings to the north and protect the recreational area of the bay to the south.



District Engineer  
U.S. Army Engineer District,


- 2 -

17 March 1962

In addition, my future plans for my property include a pier along the northerly, or commercial, side of my property to serve the recreational needs of a proposed multiple dwelling. The proposed moorage opening to the south would create an impossible situation in this regard as to the navigation of his tenants on one side and mine on the other. On the contrary, a moorage opening to the north would permit navigationally-safe back-to-back facilities and the proper use of the shallow water areas of Yarrow Bay.

On the above bases, I object to issuance of the requested permit. Should a public hearing be held, I would appreciate notice and the opportunity to be present and testify.

Very truly yours,



HIRAM L. TUTTLE  
P.O. Box 628  
Kirkland, Washington

HLT/s

HIRAM L. TUTTLE  
Attorney at Law  
P.O. Box 622 ... Phone: VA 2-1646  
Richland, Washington

6 April 1962

District Engineer  
U. S. Army Engineer District, Seattle  
1519 South Alaskan Way  
Seattle, Washington

Re: Public Notice No. P-62-34  
26 February 1962, file NPSRS  
Yarrow Bay Marina  
Letter of Objection, 17 March 1962

Gentlemen:

I have been contacted by Mr. Wallace Nelson in regard to the above application of the Yarrow Bay Marina and my objections thereto. Mr. Nelson has assured me that his plans were incorrectly stated on the back of said notice and that his actual intentions differ therefrom in the following manner:

- a. A log boom is to be firmly affixed along and just inside the property line along the south side of the Yarrow Bay Marina property from the shoreline to a point just short of the inner harbor line.
- b. The southwest corner of his proposed construction will extend somewhat beyond the inner harbor line.
- c. The distance between the log boom just within the south property line and the farthest southerly projection of his fixed pier construction will be not less than 25 feet for the three westerly north-south piers, and not less than 35 feet for the easterly (or inner) north-south pier.

Conditional upon the making of the above changes in Mr. Nelson's plans, and upon your assurance that construction will be permitted only if in full accordance with said plans after they have been changed to meet the above conditions, I hereby withdraw my previous objection to said construction as stated in my letter of 17 March 1962.

I believe that the stated changes suggested by Mr. Nelson which have been discussed with me and in which I have concurred this date will correct the navigational hazards, to which I directed attention in my previous letter, by creating a channel between the southerly and of the fixed construction and the north side of the log boom along and just inside the south property line. Channelizing the traffic in this manner will prevent the use of undue speed

District Engineer  
U. S. Army Engineer District

- 2 -

6 April 1962

close to shore, minimize the danger of collision, and keep the relatively larger craft which are marina tenants from constantly traveling through the shallow shoreside children's recreational area.

If your approval of these requested plans includes the above conditions, I will have no objection to your granting approval of the plans and to the beginning of construction work without further notice or other reference to me.

Very truly yours,



HIRAM L. TUTTLE

HLT/s

WILLIS R. McCLARTY • ARCHITECT  
ASSOCIATE MEMBER AMERICAN INSTITUTE OF ARCHITECTS  
3757 - 150TH AVE. S.E. • SH 6-5100 • BELLEVUE, WASHINGTON

May 22, 1962

Re: Plan check for adherence to  
Uniform Building Code  
Yarrow Bay Marina for  
Mr. Wallace Nelson

Town of Houghton  
Houghton, Washington

Dear Sirs:

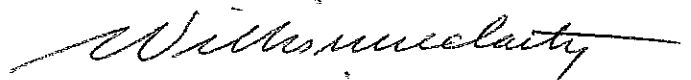
Submitted herewith are copies of architectural and structural correction sheets and a letter addressed to me from Olsen & Ratti, Professional Engineers, relative to checking the plans referred to above.

When these corrections have been made, I will make a check of the plans for final acceptance by the town.

As you know, the Uniform Building Code does not specifically regulate construction of waterfront structures, including boat moorages. With this in mind, I have taken liberty to contact Mr. John Adams of Peterson & Adams, architects for the project, and secured his informal concurrence with my intention to advise the Town to follow, generally, the building code of the City of Seattle. The city of Seattle regards boat moorages as type F-3 Occupancy, and specifically regulates their construction.

If the Town elects to forego the requirements of the Seattle Code as a guideline, then I would suggest the Uniform Building Code be supplemented by a section covering this type of construction.

Very truly yours



Willis R. McClarty . Architect

ARCHITECTURAL CORRECTION SHEET  
YARROW BAY MARINA

Note: Building Code sections referred to are in Seattle Building Code.

1. Each boat moorage covered area is regarded as a separate building, the maximum area not to exceed 8000 square feet ( sec. 3.56.030, 3(a) ). If this area is exceeded the building must be sprinklered. Alternatives in this case would be either (1) remove a 16 foot wide section of the roof per section 3.56.030, 3(d), to limit the area to 8000 square feet ( with a draft stop per sec. 3.56.030, 3(f)2 ) or, if approval is granted by the Town, (2) construct a draft stop from the roof ridge out to the eaves, with the bottom level from eave toeave. If the latter is considered adequate, the drawings shall be amended accordingly.
2. Provide dry standpipes per sec. 3.56.030, 3(c).
3. Provide draft stops per sec. 3.56.030 3(f)2.
4. Provide vents or monitors per sec. 3.56.030, 3(f)1.
5. Installation of liquid fuel lines, pumps and storage tanks must be approved by the Fire Department prior to installation. ( Storage tanks, pumps and pipes for flammable liquids are regulated in sec. 3.11.100, and are classed as Occupancy Type F-1 ).

**STRUCTURAL CORRECTION SHEET  
YARROW BAY MARINA  
HOUGHTON, WASHINGTON.**

1. UBC Section 305A: designate inspection agency for reinforced concrete construction.
2. Designate inspection agency for pile driving and submit report prior to construction of superstructure.
3. Note that all piling shall be driven to 10 ton bearing and 10 foot penetration per USED permit drawing.
4. Show location and typical details of attachment for mooring cleats and bollards.
5. Designate the grade of all framing lumber, to include joists, beams, stringers and posts.
6. Using alternate mopped roof on plywood base, roof beams designated 6 x 12 inadequate unless 1750 f stress grade.
7. Provide north arrows on plans.
8. UBC Section 2507 (B) (11) and Section 2509 (C): designate joist and wall bridging and fasten rafters to beams to prevent roof uplift. Block over beams.
9. Call out attachment of caps to piles.
10. Drawing #10 - show size of member and size of reinforcement for concrete deadman in Section A.
11. Drawing #10 - encase or wrap tie rods or furnish oversize to counteract corrosion.

**OLSEN & RATTI**  
*Professional Engineers*

1411 FOURTH AVENUE

SEATTLE 1, WASHINGTON

MAIN 4-7045

May 14, 1962.

Willis McClarty  
Architect  
3757 - 150th Ave. S.E.  
Bellevue, Washington.

Dear Sir:

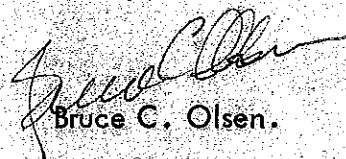
Plans for a marina to be constructed at Yarrow Bay for Mr. Wallace Nelson have been reviewed and two copies of a structural correction sheet are submitted with this letter. The plans have been checked against the Pacific Coast Uniform Building Code for 1958 and comply structurally with that code except as noted in the corrections.

The correction item relative to concrete inspection may be avoided by the Architect by minor modification of his plans and reduction in the concrete and reinforcement stress requirements.

Following modification of the plans by the Architect in conformance with the enclosed corrections, we will be available to review and approve the plans.

Very truly yours

**OLSEN & RATTI**  
Consulting Engineers

  
Bruce C. Olsen.

BCO/ucg

Job 6201-25

STRUCTURAL CORRECTION SHEET  
YARROW BAY MARINA  
HOUGHTON, WASHINGTON.

1. UBC Section 305A: designate inspection agency for reinforced concrete construction. REINF. COHC. SYSTEM OMITTED  
ALT. CREO. SHT. PILE USED SEE SHT. 10
2. Designate inspection agency for pile driving and submit report prior to construction of superstructure.
- ✓ 3. Note that all piling shall be driven to 10 ton bearing and 10 foot penetration per USED permit drawing.
- ✓ 4. Show location and typical details of attachment for mooring cleats and bollards. BOAT OWNERS FURNISHED LINES SECURED TOT. OF 6 X 6 24X6'S & TO 1/2" RING BELTS. ON UNDER SLIPS.
- ✓ 5. Designate the grade of all framing lumber, to include joists, beams, stringers and posts. NOTE ON SHT. #1
- ✓ 6. Using alternate mopped roof on plywood base, roof beams designated 6 x 12 inadequate unless 1750 f stress grade. - ALUM. ROOF SYSTEM BEING USED THROUGHOUT.
- ✓ 7. Provide north arrows on plans. ✓
- ✓ 8. UBC Section 2507 (B) (11) and Section 2509 (C): designate joist and wall bridging and fasten rafters to beams to prevent roof uplift. Block over beams. FASTENING OF RAFTERS NOTED SHT. 1 BRIDGING FOR 24" O.C. PURLINS IMPRACTICAL.
- ✓ 9. Call out attachment of caps to piles. ✓  
NOTE SHT. #1
- ✓ 10. ✓ Drawing #10 - show size of member and size of reinforcement for concrete deadman in Section A.
- ✓ 11. ✓ Drawing #10 - encase or wrap tie rods or furnish oversize to counteract corrosion.



File with  
Yarrow Bay  
Bldg permit

Town of Houghton  
Council Meeting  
Oct. 22, 1962

Roll call - Mayor Johnson was excused, Councilmen Scofield, Thormahlen, vanHaagen, Gorn and Quinn were present. Treasurer Powell, present. Clerk Clarence, excused. Attorney Stevenson, absent.

Councilman vanHaagen, Mayor Pro Tem, Acting Clerk, Mike Falk.

Minutes of the previous meeting were approved as read.

Correspondence was read from Hiram Tuttle Re: Yarrow Bay Marina, and informing the town of an impending suit concerning the building permit.

Correspondence from the Bellevue Sewer District was read concerning U.L.I.D. # 9 in Yarrow Bay Area.

Moved by Thormahlen seconded by Quinn to table action on L.I.D. # 1 and Bellevue U.L.I.D. # 9 until the return of the Mayor. vanHaagen stated that there were 3 possible solutions to the problem.

Howard Snodgrass spoke on behalf of the plat of Westview Terrace and on the recommendations of the Planning Commission whe outlined to the Council. Mr. Snodgrass agreed to all of the recommendations except the requirement that N.E. 60th Street be widened to 80ft, which would require dedication of 40 ft. of property by Westview Terrace.

Mr. Issac spoke concerning the arterial street widths.

vanHaagen stated that the comprehensive plan calls for N.E. 60th Street to be 80 ft. wide. However, the consensus of opinion of the Council was that a 60 ft. width would be adequate provided a 10ft. Slope easement be granted.

Mr. Snodgrass said that they anticipated this by allowing a 30 ft. set back for the houses on the lots fronting on N.E. 60th Street.

Councilman Scofield moved that the revised plat of Westview Terrace, submitted by Mr. Snodgrass on behalf of the Lake Development Co., be accepted with the recommendation for a 60 ft. steet on N.E. 60th street, provided a 10 ft. slope easement is granted. The motion seconded by Quinn. The motion carried.

It was moved by Scofield and seconded by Quinn to accept the recommendat- ion of the Planning Commission to rezone John Ferree's property from R-5 to R-1. (Tax lot # 47) Carried.

John Hay, attorney, presented a petition to the Council on behalf of Hiram Tuttle and petitioners which was read by the acting clerk.

The petition outlined the following alleged violations at the Yarrow Bay Marina Construction site:

october 22, 1962

1. Piers and moorages to close to the property line.
2. A large ferry boat moored at the outer end of the dock.
3. No screening of the property.
4. No paved parking area.

Quinn said that the third and fourth objections concerning off street parking and screening had been covered with plans filed with the Town.

Hays agreed that plans had been filed but said that they had not seen them.

Quinn asked if the ferry boat referred to our building permit.

Mr. Hays said, well, no it did not

Mr. Trethewey on behalf of Mr. Tuttle.

Permit was issued - -the only condition was parking. This is normally the last part of the construction.

These alleged violations do not exist under your building code. Piers do not fall under the building requirement. Corps of Army Engineers permit obtained.

Discussion followed on various subjects.

Quinn moved that the mayor instruct the building official to check for violations and to recommend a definition of a building. The motion was seconded by Thormahlen. The motion carried.

Re: Mr. Gordon and others rezone application.

The Planning Commission wants the minutes to show that the petition was only temporary and that the \$100.00 fee was still good.

Moved by Scofield and seconded by Gorn to instruct the Mayor to take care of the matter. Carried.

Robert Weisen wants to go on record for a 60 ft. street on N.E. 60th.

Quinn asked for a 15 minute recess.

Mayor Pro Tem called the meeting to order.

Quinn moved that the Council order the Planning Commission to make an informal study of the minimum lot width on the Water Front lots (R-4) and determine whether a public hearing should be held. Gorn seconded. Scofield and Thormahlen Voted no. vanHaagen, Quinn and Gorn voted yes.

Gorn moved that Civil Defense Director Scofield consult with authorities as to the status of Civil Defense during the present emergency. Seconded by Quinn. The motion carried.

Moved and seconded by Quinn and Gorn to adjourn the meeting. Carried.

Attest:

Clerk of the Town of Houghton

Mayor of the Town of Houghton

To The Honorable Mayor and Town Council of the Town of Houghton:

We; the undersigned residents and property owners of the Town of Houghton, do hereby respectfully petition the Honorable Mayor and Town Council of the Town of Houghton this twenty-second day of October, 1962, as follows:

That the Mayor and Council order Mr. Wallace O. Nelson to cease and desist from further building of a pier and covered moorages at his property in Houghton, Washington, known as the Yarrow Bay Marina, which we are informed is being done without a valid and approved building permit.

That the Mayor and Council order summary removal of all building done by said owner at said site without a valid building permit.

That the Mayor and Council order all town officials to strictly enforce the above, and further order that Mr. Nelson's present invalid building permit be revoked and no new or further building permit be issued without full and prior approval of the Town Planning Commission and the Town Council after due and public hearing as required by law and the Ordinances of the Town of Houghton.

Signed and respectfully submitted as of the day and year first above written:

Heron Little

Richard Little

Robert Curtis

Eloise McKay

Milvin McKay

Emma McKay

Anna M. Rae

Esther

Mrs. Esthara

Philip Harvey

Dudley Giffin

Jim O'Brien

Geo G. Middlemas

Hannah Middlemas

Guy Meyers

Katherine Z. Meyers

Grace W. McAllister

Berna Keenan

Hazel Keenan

Helen McKay

J. Virginia Owen

Paul Little

John T. Colman

Lexie Colman

Irma Chen

Wesley Goss

McClare Campbell 4542 - Lakeview Blvd 78

James B Campbell  
Barbara Campbell

W. J. Morgan  
Dorothy C. Morgan

PETITION

To The Honorable Mayor and Town Council of the Town of Houghton:

We, the undersigned residents and property owners of the Town of Houghton, do respectfully petition the Honorable Mayor and Town Council of the Town of Houghton this twenty-second day of October, 1962, as follows:

That the Mayor and Council order Mr. Wallace O. Nelson to cease and desist further building of a pier and covered moorings at his property in Houghton Washington, known as the Yarrow Bay Marina, which we are informed is being built without a valid and approved building permit.

That the Mayor and Council order summary removal of all building done by owner at said site without a valid building permit.

That the Mayor and Council order all town officials to strictly enforce the above, and further order that Mr. Nelson's present invalid building permit be revoked and no new or further building permit be issued without full and final approval of the Town Planning Commission and the Town Council after due and proper public hearing as required by law and the Ordinances of the Town of Houghton.

Signed and respectfully submitted as of the day and year first above written:

Hiram L. Tuttle

Raymond L. Tuttle

Floyd Curtis

Elsa M. Curtis

Melvin McKay

Emma McKay

Anna M. Rae

Esther Harris

Wm. Est. Harris

Philip Harvey

Thos. S. Giffin

H.M. Giffiths

James M. Giffiths

Geo. G. Middleman

Hannah Middleman

Guy Meyers

Katherine Z. Meyers

Grace W. McAllister

Bernie Keenan

Hazel Keenan

Helen McKay

J. Virginia Owen

Paul L. Owen

John T. Cochran

Lexie Cochran

Ernest Owen

Nedra Ross

W. O. Ross

October 18, 1962

To the Mayor and the Town Council  
Town of Naushton  
Naushton, Washington

Gentlemen:

My home is located adjacent to and immediately south of the Yarrow Bay Marina. That organization is currently building a large dock with many covered moorings. I checked into this activity with the Town Clerk and with the Planning Commission last month and found that Mr. Wallace G. Nelson, the owner, had been issued a conditional building permit which was to be valid only upon approval by the Town Planning Commission. At the meeting of the Town Planning Commission, which I attended, it was stated that this approval had not been granted.

Since the required condition has not been fulfilled, the building at the Yarrow Bay Marina which is currently being done appears to be unlawful and in direct violation of the terms of the building permit. For this, and other reasons, I have entered suit against Mr. Nelson asking that the Court order the construction stopped and order the removal of any unlawful portion of the completed work.

The construction now proceeding appears to be in direct violation of the ordinances, rules and building permit of the Town of Naushton. The Town therefore has a direct interest in enforcing the conditions of its building permit as well as the provisions of its ordinances. I therefore respectfully request that the Mayor and the Town Council authorize the Town Attorney, on behalf of the Town of Naushton, to join in my current legal action against Mr. Nelson to have this construction stopped at this time.

Respectfully submitted,

HERMAN L. TUTTLE  
5021 Lake Washington Blvd. N.E.  
Naushton, Washington

(Mail Address: P.O. Box 622  
Richland, Washington)

HIRAN L. TUTTLE  
Attorney at Law  
P.O. Box 622 .... VA 2-1646  
Kirkland, Washington

To the Planning Commission, Board of Adjustment and Town Council  
Town of Houghton  
Houghton, Washington

Gentlemen:

I hereby protest and appeal from further expansion in use or building of the non-conforming uses on the premises known as the Yarrow Bay Marina. I make this protest as an adjoining property owner suffering substantial injury from both present and proposed uses of said property.

I am informed that it is proposed that a marine laboratory, essentially a manufacturing use is proposed for said property. I protest against said use because:

1. It is beyond the scope of the present non-conforming use of the property;
2. It does not fall within any permitted use for a R-4 zoning or even a commercial zoning;
3. Such use on said property could not possibly conform to the restrictions for manufacturing or commercial use abutting residential property;
4. Present property owners have substantially failed to carry out the requirements of the zoning ordinance for commercial property next to residential property and have improperly expanded their non-conforming use;
5. Off-street parking facilities and screening as required by the ordinance have not been provided;
6. Proper sewage facilities are unavailable;
7. Said manufacturing type activity could give rise to noise and noxious odors in excess of the limitations of the Houghton zoning ordinance;
8. I have not received the notification required by the ordinance from the applicant for a special permit and have not been allowed sufficient time to prepare proper protest to the proposed action.

Very truly yours,

HIRAN L. TUTTLE

McLare Campbell

4542 - Lake Wash Blvd NE

James B Campbell  
Barbara Campbell

W. J. Morgan  
Dorothy C. Morgan



# Sanborn Fire Insurance Maps



EDR® Environmental  
Data Resources Inc

"Linking Technology with Tradition"®

## Sanborn® Map Report

**Ship To:** Erin K. Rothman

Sound Environmental

2400 Airport Way South

Seattle, WA 98134

**Order Date:** 5/16/2006 **Completion Date:** 5/16/2006

**Inquiry #:** 1676898.3

**P.O. #:** NA

**Site Name:** Yarrow Bay Marina

**Address:** 5207 Lake Washington Blvd

**City/State:** Kirkland, WA 98033

**Customer Project:** NA

1024452BRU

206-306-1900

**Cross Streets:**

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

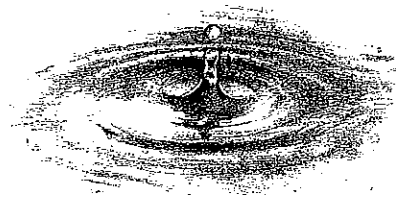
**NO COVERAGE**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report AS IS. Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

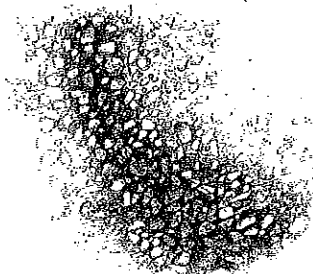
## Previous Reports by Others



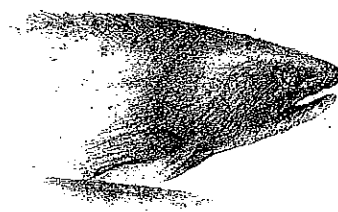
Geotechnical Engineering



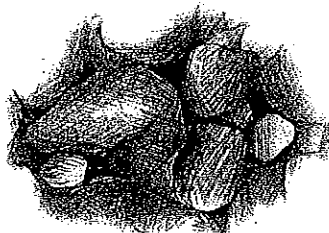
Water Resources



Solid and Hazardous Waste



Ecological/Biological Sciences



Geologic Assessments



# Associated Earth Sciences, Inc.

Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report

## YARROW BAY OFFICE BUILDING

Kirkland, Washington

Prepared for

**Marina Suites at Yarrow Bay  
c/o Waterfront Construction, Inc.**

Project No. KE02247A

June 24, 2002

Associated Earth Sciences, Inc.



June 24, 2002  
Project No. KE02247A

Marina Suites at Yarrow Bay  
c/o Waterfront Construction, Inc.  
205 NE Northlake Way, Suite 230  
Seattle, Washington 98105

Attention: Mr. Paul Wilcox

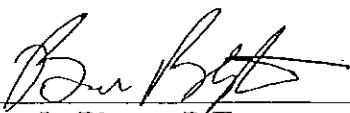
Subject: Subsurface Exploration, Geologic Hazard, and  
Preliminary Geotechnical Engineering Report  
Yarrow Bay Office Building  
5207 Lake Washington Boulevard NE  
Kirkland, Washington

Dear Mr. Wilcox:

We are pleased to present the enclosed copies of the subject report. This report summarizes the results of our subsurface exploration, geologic hazards, and geotechnical engineering studies, and offers preliminary recommendations for the design of Yarrow Bay office building.

We have enjoyed working with you on this study, and are confident that the recommendations presented in this report will aid in the successful completion of your project. If you should have any questions, or if we can be of additional help to you, please do not hesitate to call.

Sincerely,  
**ASSOCIATED EARTH SCIENCES, INC.**  
**Kirkland, Washington**

  
\_\_\_\_\_  
Bruce L. Blyton, P.E.  
Principal Engineer

MAM/af - KE02247A1 - PROJECTS\2002247\KE\WP - W2K

**SUBSURFACE EXPLORATION, GEOLOGIC HAZARD, AND  
PRELIMINARY GEOTECHNICAL ENGINEERING REPORT**

**YARROW BAY OFFICE BUILDING**

**Kirkland, Washington**

*Prepared for:*

**Marina Suites at Yarrow Bay  
c/o Waterfront Construction,<sup>1</sup> Inc.  
205 NE Northlake Way, Suite 230  
Seattle, Washington 98105**

*Prepared by:*

**Associated Earth Sciences, Inc.  
911 5<sup>th</sup> Avenue, Suite 100  
Kirkland, Washington 98033  
425-827-7701  
Fax: 425-827-5424**

June 24, 2002  
Project No. KE02247A

## I. PROJECT AND SITE CONDITIONS

### 1.0 INTRODUCTION

This report presents the results of our subsurface exploration, geologic hazard, and geotechnical engineering study for the proposed Yarrow Bay office building. The site layout, including the location of explorations completed for this study, is presented on the Site and Exploration Plan, Figure 1. As development plans and construction techniques are developed, the conclusions and recommendations contained in this report should be reviewed and modified, or verified, as necessary.

#### 1.1 Purpose and Scope

The purpose of this study was to provide subsurface data to be used in the preliminary design of the proposed office building. Our study included a review of available geologic literature, drilling exploration borings, and completing geologic studies to assess the type, thickness, distribution, and physical properties of the subsurface sediments and shallow ground water conditions. Geologic hazards evaluations and geotechnical engineering studies were also conducted to determine the suitable geologic hazard mitigation techniques, the type of suitable foundation, allowable foundation soil bearing pressures, anticipated settlements, basement/retaining wall lateral pressures, floor support recommendations, and drainage considerations. This report summarizes our current fieldwork and offers hazard mitigation and development recommendations based on our present understanding of the project.

#### 1.2 Authorization

Written authorization to proceed with this study was granted by Mr. Paul Wilcox of Waterfront Construction, Inc. on May 10, 2002. Our study was accomplished in general accordance with our scope of work letter dated April 29, 2002. This report has been prepared for the exclusive use of the Marina Suites at Yarrow Bay and their agents, for specific application to this project. Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering and engineering geology practices in effect in this area at the time our report was prepared. No other warranty, expressed or implied is made. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the owner.

### 2.0 PROJECT DESCRIPTION

This report was completed with an understanding of the project based on preliminary site sketches provided by the architect, Mithun, Inc. A boundary and topographic survey of the

existing conditions of the property entitle "New Lot 1, Yarrow Bay Marina" by Horton Dennis & Associates, Inc. February 27, 1997 was also available. We understand that the proposed development will consist of construction of a new office building, including two stories of underground parking (elevation 32 feet and 41 feet), office/parking at elevation 50 feet, and office space at elevation 62 feet and 74 feet. Construction of the lower floors will require cuts on the order of 35 feet below the elevation of Lake Washington Boulevard NE. Shoring will be required on the north and east sides of the proposed development. Other construction and design details were not available at the time of this report.

The property was located at 5207 Lake Washington Boulevard NE in Kirkland, Washington. The property generally sloped down from Lake Washington Boulevard NE (on the east) to Lake Washington, which borders the property on the west side. An approximate 8-foot-high rockery wall was located on the east side of the property, providing grade separation between Lake Washington Boulevard NE and the subject property. A series of gravel drive areas cross the site, creating level benches for boat and trailer parking. Along the west side of the property are the offices of the active Yarrow Bay Marina. An asphalt drive along the south side of the property provides access to the marina. The ground surface ranged from generally level to 1.5H:1V (Horizontal:Vertical) in between the level benches. These steeper slope areas were limited to approximately 6 to 8 vertical feet. Total elevation change across the property was on the order of 32 feet. Vegetation on the areas not paved consisted primarily of grasses.

A small cast-in-place concrete basement structure is located near the mid-section of the south side of the proposed building area. This structure is currently unused, and appears to be a remnant of an earlier residence/structure on the property.

### 3.0 SUBSURFACE EXPLORATION

Our field study included drilling a series of exploration borings to gain information regarding subsurface conditions in the area of the proposed office building. The various types of sediments, as well as the depths where characteristics of the sediments changed, are indicated on the exploration logs presented in the Appendix of this report. The depths indicated on the logs where conditions changed may represent gradational variations between sediment types in the field. The explorations were located generally within the footprint of the proposed office building.

The conclusions and recommendations presented in this report are based on the five exploration borings completed for this study. The number, locations, and depths of the explorations were accomplished within site and budgetary constraints. Because of the nature of exploratory work below ground, extrapolation of subsurface conditions between field explorations is necessary. It should be noted that differing subsurface conditions sometimes may be present between exploration locations due to the random nature of deposition and the



alteration of topography by past grading or filling. The nature and extent of any variations between the field explorations may not become fully evident until construction. If variations are observed at that time, it may be necessary to re-evaluate specific recommendations in this report and make appropriate changes.

### 3.1 Exploration Borings

The exploration borings were completed by advancing a 3<sup>3</sup>/<sub>8</sub>-inch inside-diameter, hollow-stem auger with a truck-mounted drill rig. During the drilling process, samples were obtained at generally 2½- or 5-foot intervals. The exploration borings were continuously observed and logged by a geotechnical engineer from our firm. The exploration logs presented in the Appendix are based on the field logs, drilling action, and inspection of the samples secured.

Disturbed but representative samples were obtained by using the Standard Penetration Test (SPT) procedure in accordance with ASTM:D 1586. This test and sampling method consists of driving a standard 2-inch outside-diameter, split-barrel sampler a distance of 18 inches into the soil with a 140-pound hammer that free falls a distance of 30 inches. The number of blows for each 6-inch interval is recorded, and the number of blows required to drive the sampler the final 12 inches is known as the Standard Penetration Resistance ("N") or blow count. If a total of 50 blows are recorded within one 6-inch interval, the blow count is recorded as 50 blows for the number of inches of penetration. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils; these values are plotted on the attached exploration boring logs.

The samples obtained from the split-barrel sampler were classified in the field and representative portions placed in watertight containers. The samples were then transported to our laboratory for further visual classification, as necessary.

## 4.0 SUBSURFACE CONDITIONS

Subsurface conditions within the footprint of the proposed office building were inferred from the field explorations accomplished for this study, visual reconnaissance of the site, review of available geologic literature, and review of the topographic survey map. The following section presents more detailed subsurface information.

### 4.1 Stratigraphy

#### *Fill*

Fill soils (those not naturally placed) were encountered in each of the five exploration borings completed for this study. The fill ranged in thickness from 4½ to 8 feet. As noted on the

exploration logs, the fill varied from loose to medium dense, moist, brown to oxidized gray sand with variable amounts of silt and gravel. These fill materials vary in both quality and depth site. The fill likely originated from previous grading activities on the site and from construction of Lake Washington Boulevard NE. The existing fill soil is not considered suitable for structural support.

### *Alluvium*

Below the surficial fill soil in EB-2, the soil was interpreted to be alluvium. This unit consisted of medium dense, moist to wet, greenish gray to tan, fine to medium sand with trace to some silt and trace gravel. This material was deposited by the nearby Lake Washington when the elevation of the water surface was higher than present day. The alluvium would be suitable for support of lightly loaded structures and for drive areas, following proper preparation.

### *Possession Drift*

Below the alluvium in EB-2 and below the surficial fill soil in EB-1, EB-3, EB-4, and EB-5, the soil was interpreted to be Possession Drift. These sediments generally consisted of dense to hard, moist to saturated, fine to very fine sand to silt with very fine sand partings. Possession Drift was deposited in the Late Pleistocene prior to the arrival of the Vashon-age ice sheet. The unit extended below the termination depth of the exploration borings. This soil is considered suitable for structural support.

The above geologic interpretation of the subsurface soil is not in strict agreement with published geologic literature for the area. The *Geologic Map of the Kirkland Quadrangle, Washington* by James P. Minard (1983) shows the site as being underlain by modified land (i.e., fill soil). The *Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington* by James C. Yount, James P. Minard, and Glenn R. Dembroff, 1993, also shows the site as being underlain by modified land. The Possession Drift and alluvium deposits identified within our explorations are not shown in the area of the site on either map. Modified/filled land may exist off-site in the immediate shoreline area and north of the site in the vicinity of the Carillon Point development area.

## 4.2 Hydrology

The alluvium within EB-2 became wet to saturated at a depth of approximately 10 feet (elevation 20 feet). This may be a localized wet zone of perched water as ground water was not encountered within the nearby EB-1. However, due to the proximity to Lake Washington and the fact that the ground water was encountered in soil interpreted to be alluvium, the ground water in EB-2 appears to be hydraulically connected to Lake Washington. Perched

ground water may also be encountered elsewhere on the site within the uncontrolled existing fill soil.

No ground water was encountered within EB-3, which was located at an approximate elevation of 44 feet. This exploration boring was terminated at 26.5 feet (elevation 17.5 feet).

Ground water was encountered within EB-4 at a depth of approximately 25 feet (elevation 30 feet) and within EB-5 at a depth of approximately 27 feet (elevation 31 feet). While drilling into the saturated zone of these exploration borings, heaving soils were encountered. This ground water was interpreted to represent the actual water table in the area. The aquifer appears to be confined (under hydrostatic pressure), as the elevation of the water within EB-4 continued to rise after completion of the exploration boring. In EB-4, the water surface rose to an elevation of approximately 41 feet and was accompanied by approximately 9 feet of heave within the hollow-stem augers.

The level of Lake Washington varies from a high of 22 feet to a low of 20 feet, as measured at the Ballard Locks. The highest lake levels occur in June and the lowest in December through February.

## II. GEOLOGIC HAZARDS AND MITIGATIONS

The following discussion of potential geologic hazards is based on the geologic, slope, and ground water conditions as observed and discussed herein. The approximate western half of the site lies within a Seismic Hazard area, according to City of Kirkland *Sensitive Areas Maps*. The upper, western portion of the site is mapped by the City as a moderate Landslide and Erosion Hazard Area. The discussion will be limited to potential seismic, land sliding or mass wasting, and erosion hazards.

### 5.0 SEISMIC HAZARDS AND RECOMMENDED MITIGATION

Earthquakes occur in the Puget Lowland with great regularity. The majority of these events are small and are usually not felt. However, large earthquakes do occur, as evidenced by the 1949, 7.2 magnitude event, the 1965, 6.5 magnitude event, and the 2001, 6.8 magnitude event. The 1949 earthquake appears to have been the largest in this area during recorded history. Evaluation of earthquake return rates indicates that an earthquake of the magnitude between 5.5 and 6.0 is likely within a given 25- to 40-year period.

Generally, there are four types of potential geologic hazards associated with large seismic events: 1) surficial ground rupture; 2) seismically induced landslides; 3) liquefaction; and 4) ground motion. The potential for each of these hazards to adversely impact the proposed project is discussed below.

#### 5.1 Surficial Ground Rupture

The nearest known fault trace to the project is the Seattle fault. Recent studies by the U.S. Geological Survey (e.g., Johnson et al., 1994, *Origin and Evolution of the Seattle Fault and Seattle Basin, Washington, Geology*, v.22, p. 71-74; and Johnson et al., 1999, *Active Tectonics of the Seattle Fault and Central Puget Sound Washington - Implications for Earthquake Hazards*, Geological Society of America Bulletin, July 1999, v.111, n. 7, p. 1042-1053) suggest that an east-to-west-trending thrust fault zone (Seattle fault) may project about 4 miles south of the project site. The recognition of this fault is relatively new, and data pertaining to it are limited, with the studies still ongoing. According to the U.S. Geological Survey studies, the latest movement of this fault was about 1,100 years ago when about 20 feet of surficial displacement took place. This displacement can presently be seen in the form of raised, wave-cut beach terraces along Alki Point in West Seattle and along Restoration Point at the south end of Bainbridge Island. The recurrence interval of movement along these fault systems is still unknown, although it is hypothesized to be in excess of several thousand years.

Due to the suspected long recurrence interval, the potential for ground rupture is considered to be low during the expected life of the structure. It is our opinion, based on existing geologic

data, that the risk of surface rupture impacting the proposed project is low and no mitigations are recommended.

## 5.2 Seismically Induced Landslides

The site gradually slopes down to the west at an approximate slope of 7H:1V. There are steeper areas on the site in between the gravel drives for boat parking. These steeper areas are inclined at an approximate 1.5H:1V slope. However, the vertical height of these slopes is 6 to 8 feet. Additionally, glacially consolidated soil (below a thin layer of surficial fill soil) was encountered within the explorations completed for this study. Therefore, the landslide risk is considered low and no mitigations are necessary. Shoring will be required along the north and east sides of the site. Shoring is discussed in Section 9.0 of this report.

## 5.3 Liquefaction

Liquefaction is a condition where loose, saturated, typically sandy soils lose shear strength when subjected to high intensity, cyclic loads, such as occur during earthquakes. The resulting reduction in strength can cause differential foundation settlements and slope failures. Loose, saturated, fine-grained sands that cannot dissipate the buildup of pore water pressure are the predominant type of sediments subject to liquefaction.

The encountered stratigraphy has a low potential for liquefaction due to the hard to very dense condition of the soil and the absence of adverse ground water conditions. Ground water was encountered at a shallow depth in EB-2. However, the soil was medium dense and the water was not encountered in nearby exploration borings. As such, no liquefaction mitigations are required.

## 5.4 Ground Motion

Based on the site stratigraphy and visual reconnaissance of the site, in our opinion, earthquake damage to the proposed structures founded on a suitable bearing strata would likely be caused by the intensity and acceleration associated with the event and not any of the above-discussed impacts. Structural design of the building should follow *Uniform Building Code* (UBC) standards and take into consideration stress caused by seismically induced earth shaking using a Seismic Zone Factor (Z) of 0.3 (Table 16-I) and Soil Profile Type  $S_b$  (Table 16-J).

## 6.0 EROSION HAZARDS AND MITIGATION

To mitigate the erosion hazard potential and off-site sediment transport during and after construction, we would recommend the following:

1. All storm water from impermeable surfaces, including roadways and roofs, should be tightlined into approved facilities.
2. Clean water entering construction areas should be collected and routed around disturbed areas and released below construction limits in accordance with applicable permits.
3. Temporary sediment catchment/treatment facilities should be constructed to intercept and treat any sediment-laden water from the construction area.
4. To the extent possible, existing paved access surfaces should be left intact and used during construction. Exposed soil that will be subject to repeated ingress/egress traffic should be covered with a layer of crushed quarry rock of asphalt treated base (ATB).
5. Check dams should be used along drainage swales, and silt fences should be placed along the lower elevations of clearing on the property.
6. If possible, construction should proceed during the drier periods of the year and disturbed areas should be re-vegetated as soon as possible. Temporary erosion control measures should be maintained until permanent erosion control measures are established.
7. Soils that are to be reused around the site should be stored in such a manner as to reduce erosion. Protective measures may include, but are not necessarily limited to, covering with plastic sheeting, the use of low stockpiles in flat areas, or the use of hay bales/silt fences. Due to the limited space on the site, it is not anticipated that large quantities of excess soil will be stockpiled on-site.

### III. DESIGN RECOMMENDATIONS

#### 7.0 INTRODUCTION

Our explorations indicate that, from a geotechnical standpoint, the parcel is suitable for the proposed development provided that the recommendations contained herein are properly followed. The bearing stratum is relatively shallow in most areas and conventional spread footing foundations may be used for structural support. Overexcavation is anticipated to be necessary to reach bearing soil in the northwest corner of the building. Moderate ground water seepage is expected at excavation level in the eastern portion of the building. Shallow swales/sumps are expected to be capable of collecting and controlling the seepage during construction. Conventional wall, footing, and sub-slab drainage (eastern half of the building) are recommended for permanent control of seepage. Shoring will be required along the north and east sides of the excavation. Soldier piling (cantilever and tied-back) is recommended for this site.

#### 8.0 SITE PREPARATION

Old foundations presently on the site that are under building areas or not part of future plans should be removed. Any buried utilities should also be removed or relocated if they are under building areas. The resulting depressions should be backfilled with structural fill (if they are below planned building excavation levels) as discussed under the *Structural Fill* section.

Site preparation of planned building and road/parking areas should include removal of all trees, brush, debris, and any other deleterious material. Additionally, the upper organic topsoil should be removed and the remaining roots grubbed. Areas where loose surficial soils exist due to grubbing operations should be considered as fill to the depth of disturbance and treated as subsequently recommended for structural fill placement.

Existing fill should be stripped down to the underlying medium dense to very dense/hard natural soil. Since the density of the soil is variable, random soft pockets may exist and the depth and extent of stripping can best be determined in the field by the geotechnical engineer or engineering geologist. We recommend that pavement and slab areas be proof rolled with a loaded dump truck to identify any soft spots; soft areas should be overexcavated and backfilled with structural fill.

Some areas of the site will require overexcavation to expose suitable bearing soil, such as in the vicinity of EB-2. At the location of EB-2, overexcavation on the order of 13 feet may be required. The upper 12 inches of the exposed soils should then be recompacted to 90 percent

of ASTM:D 1557. The area could then be backfilled to footing subgrade elevation with structural fill as discussed in the section on *Structural Fill*.

### 8.1 Temporary Cut Slopes

In our opinion, stable construction slopes should be the responsibility of the contractor and should be determined during construction based on local conditions encountered at that time. For estimating purposes, however, we anticipate that temporary, unsupported cut slopes in the existing fill and the alluvium can be planned at a maximum slope of 1.5H:1V. Temporary, unsupported cut slopes in the underlying Possession Drift can be planned at a maximum slope of 1H:1V. If ground water seepage is encountered during construction, the temporary slopes may have to be laid back at a shallower inclination, or protected with crushed rock to reduce piping of the sediments. As is typical with earthwork operations, some sloughing and raveling may occur and cut slopes may have to be adjusted in the field. In addition, WISHA/OSHA regulations should be followed at all times.

### 8.2 Site Disturbance

The on-site soils contain a high percentage of fine-grained material that makes them moisture-sensitive and subject to disturbance when wet. The contractor must use care during site preparation and excavation operations so that the underlying soils are not softened. If disturbance occurs, the softened soils should be removed and the area brought to grade with structural fill. Consideration should be given to protecting access and staging areas with an appropriate section of crushed rock or ATB. We recommend leaving as much existing asphalt as is possible to serve as an access road.

If crushed rock is considered for the access and staging areas, it should be underlain by an engineering stabilization fabric to reduce the potential of fine-grained materials pumping up through the rock and turning the area to mud. The fabric will also aid in supporting construction equipment, thus reducing the amount of crushed rock required. We recommend that at least 10 inches of rock be placed over the fabric; however, due to the variable nature of the near-surface soils and differences in wheel loads, this thickness may have to be adjusted by the contractor in the field.

### 8.3 Construction Dewatering

Ground water was encountered while drilling EB-2, EB-4, and EB-5 at approximate elevations 7 feet, 30 feet, and 30 feet, respectively. As such, seepage into the building excavation (finish floor at approximate elevation 32), particularly in the eastern portion in the representative areas of EB-4 and EB-5, is likely. Since the sediments are predominately very fine sands and silts, the flow rates per unit area are expected to be small. Dewatering can therefore be



planned to be accomplished by placing a series of shallow perimeter swales/ditches with open sumps that can be pumped, as necessary, to keep water outside the main work area.

Ground water seepage and associated caving/heaving conditions are expected at greater depths and will likely be encountered in the soldier pile holes. Use of temporary casing, drilling, fluid, and/or maintaining a compensating head of water on these deeper-drilled shafts will likely be required to keep the holes open during drilling and placement/grouting of the piling.

Permanent drainage for the building envelope (footing, wall, and sub-slab drains) should be provided as discussed in Section 14.0, *Drainage Considerations*, and Section 9.6, *Wall Drainage*.

## 9.0 SHORING

Excavation for construction of the proposed office building will require maximum vertical cuts of approximately 28 feet along the north and east sides of the footprint of the building. Along the east side, an existing 8-foot-high rockery wall provides grade separation between the upper Lake Washington Boulevard NE and the site. It is anticipated that this rockery may be left intact, and a shoring wall placed west of the rockery base. This wall would extend approximately 28 feet below the current rockery base. This section of the report presents preliminary design criteria for design of shoring for the excavation.

The most common method of shoring used in the Puget Sound area consists of wide-flange steel beams (soldier piles). For excavations of approximately 15 feet or less, the soldier piles typically may be cantilevered without the use of tiebacks or bracing. Soldier piles are placed in pre-drilled holes that extend below the bottom of the excavation. The portion of each soldier pile extending below the bottom of the excavation is grouted in place with sufficient strength concrete to transmit the load from the soldier beams into the soil below the excavation level. The upper portion of the soldier pile is then backfilled with a relatively weak grout so that it may be removed as necessary for placement of lagging.

During drilling, ground water flow, caving, and possible heaving conditions should be expected. Use of drilling fluids, water heading, and/or temporary casing of the holes should therefore be anticipated to complete the holes. Loose materials and drilling fluids should be removed/displaced prior to/during concrete placement.

Shoring may be designed to resist active lateral earth pressures. An active earth pressure condition theoretically assumes that the wall is allowed to yield laterally approximately one-tenth of 1 percent of the wall height. This small amount of yielding typically results in some minor settlement behind the wall. Considering the dense nature of the glacial sediments underlying the site, it is anticipated that the influence of wall deflection during construction

should be minimal. If minor settlement does occur, we estimate it will occur within a distance behind the wall equal to the height of the wall. The tolerance for settlement should be decided upon before completing the shoring design.

For excavations of 15 feet or less, the soldier piles typically may be cantilevered without the use of bracing. For wall heights such that a cantilever wall is not feasible, the wall will have to be anchored as the excavation progresses. We recommend anchoring the wall using tiebacks. A tieback system usually consists of drilling behind the soldier pile wall at an angle below horizontal and installing high strength rods or cables with a grout anchor. Easements will have to be obtained for any necessary tieback anchors. The anchor holes should be drilled in a manner to minimize loss of ground and not endanger adjacent anchors, surrounding subgrades, or buried utilities due to subsidence. Any permanent shoring elements should be provided with suitable corrosion protection.

### 9.1 Lateral Earth Pressures for Retained Soil

For a cantilever shoring system, the applied lateral pressure can be represented by a triangular pressure distribution termed as an equivalent fluid density. We have provided equivalent fluid densities for shoring design based on a level backslope. Surcharge loads from Lake Washington Boulevard NE have been added for design of the east shoring wall. Pressure distributions are shown on the attached Figure 2. The active pressure distribution should be assumed to be applied over the pile spacing above the base of the excavation. Below the base of the excavation, the active pressure should be applied over one concreted soldier pile diameter.

### 9.2 Passive Soil Resistance

To resist lateral loads, an allowable passive equivalent fluid unit weight of 350 pounds per cubic foot (pcf) should be used for design assuming the soldier piles are embedded in undisturbed, dense to hard Possession Drift sediments. The piles in the vicinity of EB-2 should be designed to accommodate overexcavation to approximate elevation 18 to reach bearing soils in this area. The passive fluid pressure can be assumed to act over two concreted pile diameters. The passive envelope should be truncated to neglect the first 2 feet of pile penetration below the base of the lowest adjacent excavation elevation. The passive pressure presented incorporates a factor of safety of at least 2.0.

### 9.3 Vertical Pile Loads

Soldier piles for shoring are typically set in pre-augured holes and backfilled with lean or structural concrete. Vertical loads on piles could be resisted by a combination of friction and end bearing. We recommend an allowable side friction value of 400 pounds per square foot (psf) and an end bearing value of 30 kips per square foot (ksf) for design. Side friction should

be neglected within the upper 2 feet below the base of the excavation. The 10 ksf end bearing value is predicated on embedment of at least 10 feet below the base of the excavation and assumes penetration into the dense to hard Possession Drift sediments. These values include a factor of safety of at least 1.5. Embedment depths of soldier piles below final excavation level must be designed to provide adequate lateral and/or kickout resistance to horizontal loads and satisfy moment equilibrium.

#### 9.4 Tiebacks

Tieback anchors will be necessary for lateral support of the higher segments of the soldier pile wall. Any permanent anchors should be provided with double corrosion protection. The tieback anchors may be designed with a tentative allowable tieback-soil adhesion of 1,000 psf when the anchor is located in glacially consolidated soil (such as the Possession Drift). The anchors must extend behind the no-load zone as defined on Figure 2.

Tieback anchors should be constructed with centralizers/spacers along the bonded length to keep the anchor centered within the drilled hole. Tiebacks should also be fitted with a bond breaker, such as solid PVC pipe, in the no-load zone.

Anchor tests must be performed to verify that the design resistance is available on the installed anchors. A common anchor testing program would consist of at least two 200 percent verification tests of the design or allowable load in each major soil unit, plus proof loading every production anchor to 130 percent of the design load. These tests should conform to the recommendations of the Post-Tensioning Institute for verification testing and proof loading of production anchors. Anchor tests and their results should be observed and recorded by a representative of Associated Earth Sciences, Inc. (AESI). Anchors should be locked off at 100 percent of the design loads. The anchors should be designed to fail by anchor pullout rather than by yielding steel.

#### 9.5 Lagging

We recommend that the soldier piles be spaced at maximum distance of 8 feet on-center. The entire space between the piles should be temporarily retained using treated wood lagging. Lagging should be designed for 50 percent of the lateral loads. This reduced value is due to "soil arching" between the piles. Soils should be excavated from between the piles to facilitate placement of the wood lagging over the full retained soil height. Voids behind the lagging must be backfilled with washed pea gravel or clean, free-draining sand and gravel material.

#### 9.6 Wall Drainage

Saturated conditions were encountered during our subsurface exploration program. Therefore, seepage within the retained height is expected. Backfilling of the voids behind the lagging with

a free-draining material will allow collected water to seep through the lagging. However, where the wall will have a permanent concrete facing, a drainage composite between the lagging and the concrete facing should be installed to provide an outlet for the accumulated seepage. Weep holes through the concrete facing and collection pipes at the wall base should also be provided.

### 9.7 Inspections

Since completion of the piling and tiebacks takes place below ground, the judgment and experience of the geotechnical engineer or his field representative must be used as a basis for determining the acceptability of each pile. Consequently, the use of the presented design information requires that a qualified geotechnical engineer or engineering geologist from our firm inspect all piles and shoring installation. AESI, acting as the owner's field representative, would keep records of pertinent installation data. A final summary report would then be distributed following completion of pile installation.

### 9.8 Monitoring

A survey of the surrounding structures and other critical reference points should be performed prior to construction activities. These points should then be accurately monitored, both horizontally and vertically by a licensed surveyor, until the excavation is complete and permanent walls are constructed. A photographic and/or video survey is also recommended for surrounding structures to document their condition prior to development. This monitoring would act to provide early notice of site settlement and provide an accurate record of pre-construction site conditions.

## 10.0 STRUCTURAL FILL

Structural fill may be necessary to establish desired grades, backfill around foundations, and for utility trench backfill. All references to structural fill in this report refer to subgrade preparation, fill type, and placement and compaction of materials as discussed in this section. If a percentage of compaction is specified under another section of this report, the value given in that section should be used.

After overexcavation/stripping has been performed to the satisfaction of the geotechnical engineer/engineering geologist, the upper 12 inches of exposed ground should be recompacted to at least 90 percent of the modified Proctor maximum density using ASTM:D 1557 as the standard. If the subgrade contains too much moisture, adequate recompaction may be difficult or impossible to obtain and should probably not be attempted. In lieu of recompaction, the area to receive fill should be blanketed with washed rock or quarry spalls to act as a capillary break between the new fill and the wet subgrade. Where the exposed ground remains soft and

further overexcavation is impractical, placement of an engineering stabilization fabric may be necessary to prevent contamination of the free-draining layer by silt migration from below.

After recompaction of the exposed ground is tested and approved, or a free-draining rock course is laid, structural fill may be placed to attain desired grades. Structural fill is defined as non-organic soil, acceptable to the geotechnical engineer, placed in maximum 8-inch loose lifts with each lift being compacted to at least 95 percent of ASTM:D 1557. In the case of roadway and utility trench filling, the backfill should be placed and compacted in accordance with the City of Kirkland codes and standards. The top of the compacted fill should extend horizontally outward a minimum distance of 3 feet beyond the location of footings or roadway edges before sloping down at a maximum angle of 2H:1V.

The contractor should note that any proposed fill soils must be evaluated by AESI prior to their use in fills. This would require that we have a sample of the material 48 hours in advance to perform a Proctor test and determine its field compaction standard. Soils in which the amount of fine-grained material (smaller than the No. 200 sieve) is greater than approximately 5 percent (measured on the minus No. 4 sieve size) should be considered moisture-sensitive. Use of moisture-sensitive soil in structural fill should be limited to favorable dry weather and dry subgrade conditions. The on-site soils generally contained significant amounts of silt and are considered moisture-sensitive. In addition, construction equipment traversing the site when the soils are wet can cause considerable disturbance. If fill is placed during wet weather or if proper compaction cannot be obtained, a select import material consisting of a clean, free-draining gravel and/or sand should be used. Free-draining fill consists of non-organic soil with the amount of fine-grained material limited to 5 percent by weight when measured on the minus No. 4 sieve fraction.

A representative from our firm should inspect the stripped subgrade and be present during placement of structural fill to observe the work and perform a representative number of in-place density tests. In this way, the adequacy of the earthwork may be evaluated as filling progresses and any problem areas may be corrected at that time. It is important to understand that taking random compaction tests on a part-time basis will not ensure uniformity or acceptable performance of a fill. As such, we are available to aid the owner in developing a suitable monitoring and testing frequency.

## 11.0 FOUNDATIONS

### 11.1 Bearing Pressures

Spread footings may be used for foundation support when founded on medium dense to hard natural soils or structural fill placed as previously discussed. To limit the potential for differential settlements, we recommend that building foundations (columns, perimeter walls,

interior bearing walls) be founded on the undisturbed very dense/hard sand/silt (Possession Drift) sediments. Footings supported on these soils may be designed for an allowable bearing pressure of 6,000 psf including both dead and live loads. An increase of one-third may be used for short-term wind or seismic loading.

In the vicinity of EB-2, overexcavation to an estimated elevation of 18 feet is anticipated to reach bearing soils. Footings may be stepped down to reach bearing soil or the excavation backfilled with lean concrete/controlled density fill (CDF) to reach design elevation. We recommend at least partial backfill to bring footing levels above lake level and seepage zones. Lean mix/CDF should extend beyond the footing perimeters a distance equal to at least one-half the fill depth. The lean mix/CDF should have a 28-day compressible strength equal to 400 pounds per square inch (psi). These materials should be sampled and tested by a concrete test lab at the time of placement.

For secondary structures (landscape walls, lightly loaded entry canopy columns, etc.), an allowable bearing pressure of 2,000 psf may be used for design purposes, including both dead and live loads. These footings may be placed on medium dense/medium stiff natural soils, or structural fill. An increase of one-third may be used for short-term wind or seismic loading.

### 11.2 Base Friction

Footings may be designed using a base friction coefficient of 0.35. This is an allowable value and includes a factor of safety of at least 1.5.

### 11.3 Minimum Depth

All footings should be buried at least 18 inches into the surrounding soil for frost protection. However, all footings must penetrate to the prescribed bearing stratum and no footing should be founded in or above loose, organic, or existing fill soils. Building footings should have a minimum width of 24 inches.

It should be noted that the area bounded by lines extending downward at a 1H:1V inclination from any footing must not intersect another footing or intersect a filled area that has not been compacted to at least 95 percent of ASTM:D 1557. In addition, a 1.5H:1V line extending down from any footing must not daylight because sloughing or raveling may eventually undermine the footing. Thus, footings should not be placed near the edge of steps or cuts in the bearing soils.

#### 11.4 Subgrade Protection

Although the bearing soils are very dense/hard, they are subject to softening when exposed to moisture and disturbance. Depending on weather and ground water seepage conditions at the time of construction, a concrete "mud mat" may be used to protect the bearing surfaces.

#### 11.5 Foundation Settlement

Anticipated settlement of footings founded on approved bearing sediments or approved structural fill should be on the order of  $\frac{3}{4}$  inch. However, disturbed soil not removed from footing excavations prior to footing placement could result in increased settlements.

#### 11.6 Footing Inspections

All footing areas should be inspected by AESI prior to placing concrete to verify that the design bearing capacity of the soils has been attained and that construction conforms to the recommendations contained in this report. Such inspections may be required by the City of Kirkland. Perimeter footing drains should be provided as discussed under the section on *Drainage Considerations*.

### 12.0 RETAINING WALLS

Permanent basement walls should be designed for the same lateral earth pressure as the shoring walls (35 pcf equivalent fluid), plus any applicable surcharge loadings (traffic, slopes, adjacent structures, etc).

Other cantilever retaining walls (landscape walls, etc.) may also be designed for a 35 pcf equivalent fluid density. Rigid, braced walls should be designed for an equivalent fluid of 50 pcf, plus any applicable surcharges.

Wall backfill must be free-draining (minimum 5 percent passing the No. 200 sieve, based on the minus No. 4 sieve fraction) and footing drains/weep holes provided for the above values to apply.

### 13.0 FLOOR SUPPORT

A slab-on-grade floor may be used over structural fill or natural sediments. Where moisture migration through the floor slab is to be controlled, the floor should be cast atop a minimum of 4 inches of pea gravel or washed  $\frac{1}{2}$ -inch to 1-inch (no fines) crushed rock to act as a capillary break. A polyethylene plastic vapor barrier should also be used under the floor to help prevent

passage of moisture vapor through the floor. Based on American Concrete Institute recommendations, we suggest placing a 2- to 3-inch layer of clean sand over the vapor barrier to protect the barrier and to allow some moisture loss through the bottom of the slab to aid in the curing process.

Where ground water seepage is encountered at the slab subgrade elevation, installation of a sub-slab drainage system is recommended, as discussed in Section 14.0, *Drainage Considerations*.

## 14.0 DRAINAGE CONSIDERATIONS

### 14.1 Foundation Drains

Permanent foundation walls should be provided with a drain at the base of the footing elevation. Drains should consist of rigid, perforated, PVC pipe surrounded by washed pea gravel. The level of the perforations in the pipe should be set approximately 2 inches below the bottom of the footing and the drain should be constructed with sufficient gradient to allow gravity discharge away from the building.

### 14.2 Retaining Wall Drainage

All retaining walls should be lined with a minimum 12-inch-thick washed gravel blanket, a synthetic drainage composite, or backfilled with free-draining fill to within 2 feet of the ground surface. Drainage materials must be hydraulically connected to a footing drain or weep holes at the wall base. In planning, exterior grades adjacent to walls should be sloped downward away from the structure to achieve surface drainage.

If permanent foundation walls are cast directly against the shoring walls, proper drainage should be provided to control moisture and prevent the buildup of hydrostatic pressure against the wall. At a minimum, we recommend that a synthetic drainage medium, such as Enkadrain or Miradrain, be installed at regular spacings on the face of the soldier pile wall. The drainage medium should then be covered with plastic sheeting (12-mil minimum thickness) prior to concrete placement. The drainage medium should discharge to a permanent drainage system either on the inside or outside of the permanent foundation wall. The drainage system should consist of a rigid, perforated PVC pipe, fully enveloped in washed pea gravel. The drainage pipe should be tightlined to an approved discharge. The drainage pipe and tightline should be sloped to the gravity drain.



### 14.3 Sub-Slab Drains

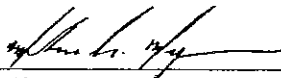
In the approximate eastern half of the building, EB-4 and EB-5 encountered free ground water at approximate elevation 30. The maximum seepage level may be higher than this observation and could exceed the planned basement finish floor elevation of 32. We therefore recommend that sub-slab drains be planned for the eastern portion of the building. These drains typically consist of a series of perforated drainpipes spaced at regular intervals (15 to 25 feet) and sloped to initiate flow to a collection point(s). The pipes are bedded in shallow trenches dug below the slab subgrade and backfilled with pea gravel/drain rock. Flow volumes are typically sufficiently small to be accommodated by 6-inch-diameter pipe. The lateral extent of slab subdrains may be adjusted for conditions observed during excavation of the basement level.

### 15.0 PROJECT DESIGN AND CONSTRUCTION MONITORING

We are available to provide additional consultation as the project design develops and possibly changes from that upon which this report is based. We are also available to provide geotechnical engineering monitoring services during construction. In the event that variations in subsurface conditions become apparent during construction, engineering decisions may have to be made in the field.

We have enjoyed working with you on this study and are confident these recommendations will aid in the successful completion of your project. Should you have any questions, or require further assistance, please do not hesitate to call.

Sincerely,  
ASSOCIATED EARTH SCIENCES, INC.  
Kirkland, Washington



Melissa A. Magnuson, P.E.  
Project Engineer



EXPIRES 5/3/04

Bruce L. Blyton, P.E.  
Principal Engineer

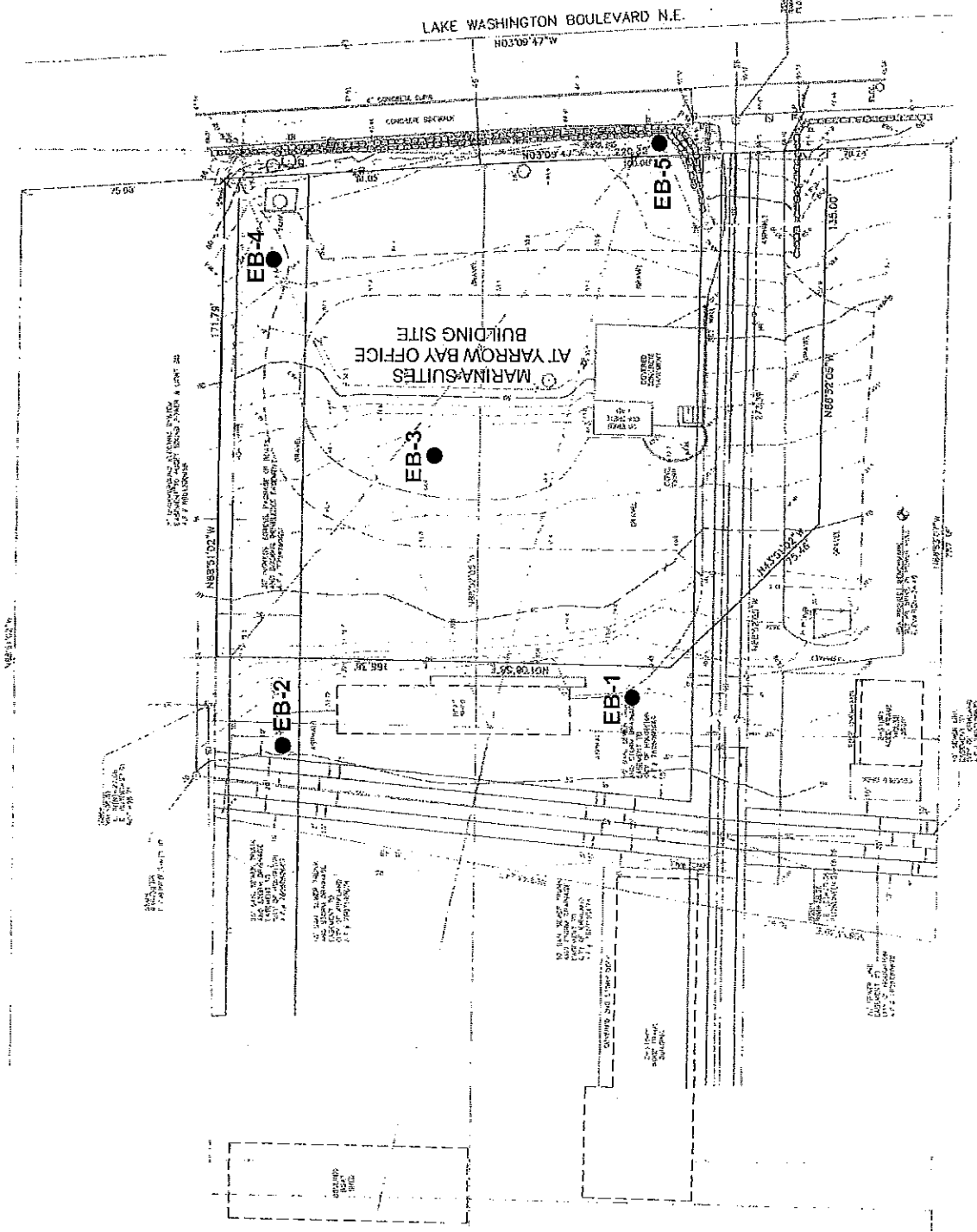
Attachments: Figure 1: Site and Exploration Plan  
Figure 2: Soldier Pile Retaining Wall Design Criteria  
Appendix: Exploration Logs

LEGEND

EB-1 ●  
Approximate location  
of exploration boring



0 60  
SCALE IN FEET

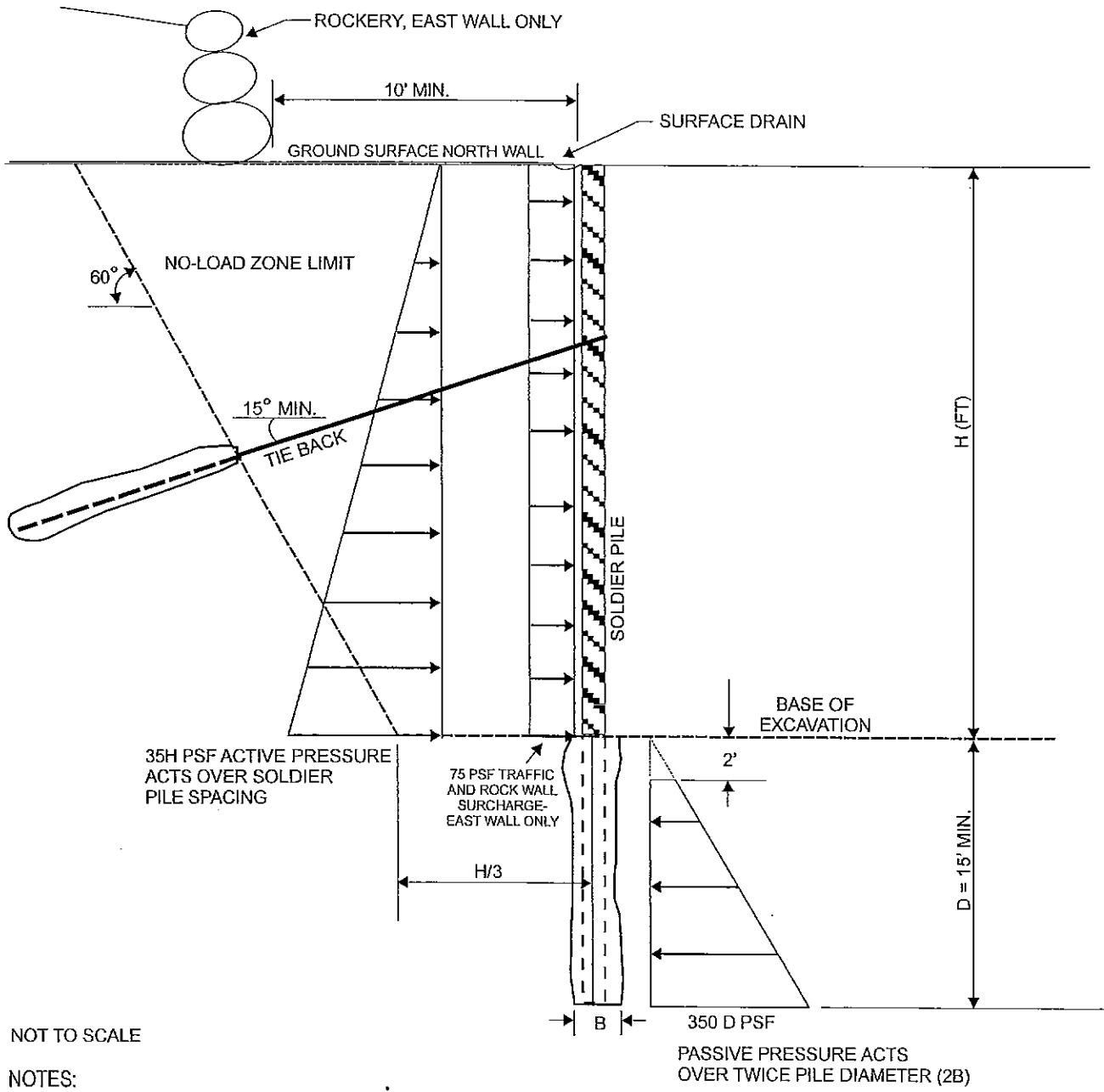


REFERENCE: HORTON DENNIS & ASSOCIATES, INC., 2/27/97.



**SITE AND EXPLORATION PLAN**  
**YARROW BAY OFFICE BUILDING**  
**KIRKLAND, WASHINGTON**

FIGURE 1  
DATE 6/02  
PROJ. NO. KE02247A



NOT TO SCALE

NOTES:

1. Diagram is illustrative of east and north shoring walls.
2. Soldier pile embedment depth "D" should consider necessary vertical capacity, kickout, and overturning resistance.
3. All tiebacks should be prestressed to 130 percent of design load and locked off at 100 percent of design load. Tieback anchor zone is to be located behind the no-load zone. Two or three tiebacks should be proof-tested to 200 percent of design load per Post-Tensioning Institute guidelines. Sufficient tendons should be provided for test loads.
4. Allowable tieback - soil adhesion = 1000 psf in glacially consolidated soil; includes factor of safety of 2.
5. Passive pressures include a factor of safety of 2.
6. Allowable skin friction of soldier pile = 400 psf. Allowable end bearing = 30 ksf with minimum 10' penetration into glacially consolidated sediment.
7. Diagram does not include hydrostatic pressures and assumes walls are suitably drained to prevent buildup of hydrostatic pressure.
8. Fifty percent of pressures may be used for design of lagging between piles, due to soil arching (8' maximum center-to-center pile spacing).
8. Diagram does not include pressures due to surface surcharges from any adjacent structures. These pressures must be provided by the structural engineer.

02247 yarrow bay of \tdg\02247-soldier pile.cdr

Associated Earth Sciences, Inc.



**PRELIMINARY SOLDIER PILE  
RETAINING WALL DESIGN CRITERIA  
YARROW BAY OFFICE BUILDING  
KIRKLAND, WASHINGTON**

FIGURE 2

DATE 6/02

PROJ. NO. KE02247A

# APPENDIX

		Terms Describing Relative Density and Consistency		
Coarse-Grained Soils - More than 50% (1) Retained on No. 200 Sieve	Gravels - More than 50% (1) of Coarse Fraction Retained on No. 4 Sieve	GW	Well-graded gravel and gravel with sand, little to no fines	
		GP	Poorly-graded gravel and gravel with sand, little to no fines	
		GM	Silty gravel and silty gravel with sand	
	Sands - 50% (1) or More of Coarse Fraction Passes No. 4 Sieve	GC	Clayey gravel and clayey gravel with sand	
		SW	Well-graded sand and sand with gravel, little to no fines	
		SP	Poorly-graded sand and sand with gravel, little to no fines	
Fine-Grained Soils - 50% (1) or More Passes No. 200 Sieve	Sands - 50% (1) or More of Coarse Fraction Passes No. 4 Sieve	SM	Silty sand and silty sand with gravel	
		SC	Clayey sand and clayey sand with gravel	
		Silt and Clays Liquid Limit Less than 50	ML	Silt, sandy silt, gravelly silt, silt with sand or gravel
			CL	Clay of low to medium plasticity; silty, sandy, or gravelly clay, lean clay
			OL	Organic clay or silt of low plasticity
	Silt and Clays Liquid Limit 50 or More	MH	Elastic silt, clayey silt, silt with micaceous or diatomaceous fine sand or silt	
		CH	Clay of high plasticity, sandy or gravelly clay, fat clay with sand or gravel	
		OH	Organic clay or silt of medium to high plasticity	
		Highly Organic Soils	PT	Peat, muck and other highly organic soils

Density		Consistency	
Coarse-Grained Soils	Very Loose	Very Soft	0 to 2
	Loose	Soft	2 to 4
	Medium Dense	Medium Stiff	4 to 8
	Dense	Stiff	8 to 15
	Very Dense	Very Stiff	15 to 30
Fine-Grained Soils		Hard	>30

Component Definitions	
Descriptive Term	Size Range and Sieve Number
Boulders	Larger than 12"
Cobbles	3" to 12"
Gravel	3" to No. 4 (4.75 mm)
Coarse Gravel	3" to 3/4"
Fine Gravel	3/4" to No. 4 (4.75 mm)
Sand	No. 4 (4.75 mm) to No. 200 (0.075 mm)
Coarse Sand	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	Smaller than No. 200 (0.075 mm)

(3) Estimated Percentage		Moisture Content
Component	Percentage by Weight	Dry - Absence of moisture, dusty, dry to the touch
Trace	<5	Slightly Moist - Perceptible moisture
Few	5 to 10	Moist - Damp but no visible water
Little	15 to 25	Very Moist - Water visible but not free draining
With	- Non-primary coarse constituents: $\geq 15\%$ - Fines content between 5% and 15%	Wet - Visible free water, usually from below water table

Symbols	
Sampler Type	Blows/6" or portion of 6"
2.0" OD Split-Spoon Sampler (SPT)	10 15 20
Bulk sample	3.0" OD Split-Spoon Sampler
Grab Sample	3.25" OD Split-Spoon Ring Sampler
	3.0" OD Thin-Wall Tube Sampler (including Shelby tube)
	Portion not recovered

Casing and Seal Details	
(4)	Cement grout surface seal
(4)	Bentonite seal
(4)	Filter pack with blank casing section
(4)	Screened casing or Hydrotip with filter pack
	End cap

(1) Percentage by dry weight	(4) Depth of groundwater
(2) (SPT) Standard Penetration Test (ASTM D-1586)	▼ ATD = At time of drilling
(3) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488)	▽ Static water level (date)
	(5) Combined USCS symbols used for fines between 5% and 15%

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.

blocks\veg\_key.dwg 11/02/01

Associated Earth Sciences, Inc.



# Exploration Log Key



Project Number  
KE02247A

Exploration  
ber  
EB-1

Sheet  
1 of 1

Project Name: Yarrow Bay Office Building  
 Location: Kirkland, WA  
 Driller/Equipment: Gregory Drilling / CME 85  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): ~ 32  
 Datum: N/A  
 Date Start/Finish: 05/29/02, 05/30/02  
 Hole Diameter (in): \_\_\_\_\_

Depth (ft)	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
						10	20	30	40	
			Fill							
5	S-1		Moist, gray, very fine to fine SAND with trace fine gravel.		4 19 32					▲51
10	S-2		Moist, gray, very fine to fine SAND, with trace fine gravel.		50/5"					▲50 5/8"
15	S-3		Moist, gray, very fine SAND with trace gravel.		11 34 50/5"					▲84 1/4"
20	S-4		Moist, gray, very fine SAND with trace gravel.		15 41 45					▲86
21.5			Bottom of exploration boring at 21.5 feet							

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)     No Recovery    M - Moisture
- 3" OD Split Spoon Sampler (D & M)     Ring Sample    ▽ Water Level ( )
- Grab Sample     Shelby Tube Sample    ▽ Water Level at time of drilling (ATD)

Logged by: MAM  
 Approved by: \_\_\_\_\_



Project Number  
KE02247A

Exploration Number  
EB-2

Sheet  
1 of 1

Project Name: Yarrow Bay Office Building  
 Location: Kirkland, WA  
 Driller/Equipment: Gregory Drilling / CME 85  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): ~ 30  
 Datum: N/A  
 Date Start/Finish: 05/29/02, 05/30/02  
 Hole Diameter (in): \_\_\_\_\_

Depth (ft)	S T	Samples Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
						10	20	30	40	
			<b>Fill</b>							
5	S-1		Moist, gray and brown SAND with some silt, trace gravel.		3	▲6				
			<b>Alluvium</b>		3					
	S-2		Moist to wet, greenish gray, fine to medium SAND with trace silt and gravel.		3		▲14			
					7					
10	S-3		Wet to saturated, tan, medium SAND with some silt, trace gravel.		3		▲13			
					3					
					10					
			<b>Possession Drift</b>							
15	S-4		Wet to saturated, gray, fine SAND, trace silt.		14					▲53
					21					
					32					
20	S-5		Moist, gray SILT with very fine sand partings grading to wet, gray SAND with trace organics, in tip.		4		▲25			
					10					
					15					
25	S-6		Saturated, gray, fine SAND, trace silt.		14					▲47
					23					
					24					
			Bottom of exploration boring at 26.5 feet							
30										
35										

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)     No Recovery    M - Moisture
- 3" OD Split Spoon Sampler (D & M)     Ring Sample    ▽ Water Level ( )
- Grab Sample     Shelby Tube Sample    ▽ Water Level at time of drilling (ATD)

Logged by: MAM  
 Approved by:



# Exploration Log

Project Number  
KE02247A

Exploration Number  
EB-3

Sheet  
1 of 1

Project Name: Yarrow Bay Office Building  
 Location: Kirkland, WA  
 Driller/Equipment: Gregory Drilling / CME 85  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): ~ 44  
 Datum: N/A  
 Date Start/Finish: 05/29/02, 05/30/02  
 Hole Diameter (in): \_\_\_\_\_

Depth (ft)	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
						10	20	30	40	
Fill										
5	S-1		Moist, brown, fine to very fine SAND with trace silt and gravel.		14 35 50/3"					▲85/9"
10	S-2		Moist, gray SILT with very fine sand partings.		11 11 14		▲25			
15	S-3		Moist, gray, SILTY very fine SAND.		10 21 30					▲51
20	S-4		Moist, gray SILT with very fine sand partings.		6 8 14		▲22			
25	S-5		Moist, gray SILT with fine sand partings.		7 15 21					▲36
Bottom of exploration boring at 26.5 feet										

Sampler Type (ST):

- 2" OD Split Spoon Sampler (SPT)     No Recovery    M - Moisture
- 3" OD Split Spoon Sampler (D & M)     Ring Sample    ▽ Water Level ( )
- Grab Sample     Shelby Tube Sample    ▽ Water Level at time of drilling (ATD)

Logged by: MAM  
 Approved by: \_\_\_\_\_





Project Number  
KE02247A

Exploration Number  
EB-4

Sheet  
1 of 1

Project Name: Yarrow Bay Office Building  
 Location: Kirkland, WA  
 Driller/Equipment: Gregory Drilling / CME 85  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): ~ 55  
 Datum: N/A  
 Date Start/Finish: 05/29/02, 05/30/02  
 Hole Diameter (in): \_\_\_\_\_

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
							10	20	30	40	
Fill											
5		S-1		Moist, slightly oxidized gray, SILTY fine SAND with trace gravel.		4 12 16		▲28			
----- Possession Drift											
10		S-2		Moist grading to wet, gray, SILTY fine SAND with trace gravel.		21 45 50/5"				▲95/11"	
15		S-3		Moist, gray SILT with some fine to very fine sand.		6 12 17		▲29			
20		S-4		Moist, gray SILT with very fine sand partings.		6 16 22			▲38		
25		S-5		Saturated, gray, fine to very fine SAND, trace silt.		17 33 50/5"				▲83/11"	
30		S-6		Saturated, gray, fine SANDY SILT.		16 22 26			▲48		
35		S-7		- 6" heave at 35'. Saturated, gray, fine SAND.		16 37 50/5"				▲87/11"	
40		S-8		9' heave at 40'. Saturated, gray, fine SAND.		6 25 50/5"				▲75/11"	
Bottom of exploration boring at 41.5 feet											

AESIBOR 02247A-1.GPJ June 4, 2002

**Sampler Type (ST):**

- 2" OD Split Spoon Sampler (SPT)     No Recovery    M - Moisture
- 3" OD Split Spoon Sampler (D & M)     Ring Sample    ▽ Water Level ( )
- Grab Sample     Shelby Tube Sample    ▾ Water Level at time of drilling (ATD)

Logged by: **MAM**  
 Approved by: \_\_\_\_\_



# Exploration Log

Project Number  
KE02247A

Exploration Number  
EB-5

Sheet  
1 of 1

Project Name: Yarrow Bay Office Building  
 Location: Kirkland, WA  
 Driller/Equipment: Gregory Drilling / CME 85  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): ~ 58  
 Datum: N/A  
 Date Start/Finish: 05/29/02, 05/30/02  
 Hole Diameter (in): \_\_\_\_\_

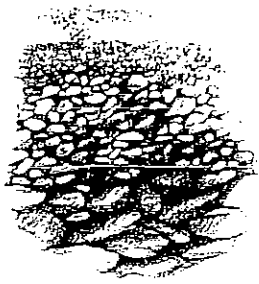
Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
							10	20	30	40	
				Fill							
5		S-1		Moist, oxidized gray, SILTY SAND with gravel.		8 7 7		▲14			
				Possession Drift							
10		S-2		Moist, gray, SILTY SAND with gravel.		11 34 50/5"					▲64/11"
15		S-3		Moist, gray, fine SAND with some silt, trace fine gravel.		27 50/5"					▲50/5"
20		S-4		Moist, gray SILT with trace fine gravel.		5 12 19			▲31		
25		S-5		Moist, gray, SILTY very fine SAND.		7 19 28					▲47
30		S-6		Saturated, gray, fine SAND.		15 24 33					▲57
35		S-7		Saturated, gray, very fine to fine SAND.		12 24 29					▲53
40		S-8		Saturated, gray, very fine to fine SAND.		22 29 35					▲64
				Bottom of exploration boring at 41.5 feet							

June 4, 2002  
AESBOR 02247A

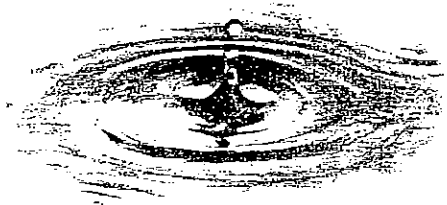
**Sampler Type (ST):**

- 2" OD Split Spoon Sampler (SPT)
- 3" OD Split Spoon Sampler (D & M)
- Grab Sample
- No Recovery
- Ring Sample
- Shelby Tube Sample
- M - Moisture
- Water Level ( )
- Water Level at time of drilling (ATD)

Logged by: MAM  
 Approved by: \_\_\_\_\_



Geotechnical Engineering



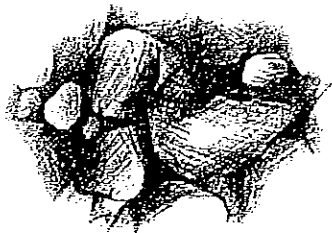
Water Resources



Environmental Assessments and  
Remediation



Sustainable Development Services



Geologic Assessments

## Associated Earth Sciences, Inc.

*Celebrating 25 Years of Service*

Subsurface Exploration, Geologic Hazard, and  
Preliminary Geotechnical Engineering Report

### YARROW BAY MARINA

Kirkland, Washington

Prepared for

Goodman Real Estate

Project No. KE05951A

April 6, 2006

# Associated Earth Sciences, Inc.



*Celebrating 25 Years of Service*

April 6, 2006  
Project No. KE05951A

Goodman Real Estate  
2801 Alaskan Way, Suite 200  
Seattle, Washington 98121

Attention: Mr. Matt Parent

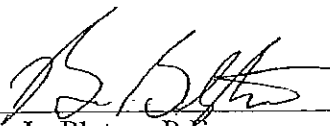
Subject: Subsurface Exploration, Geologic Hazard, and  
Preliminary Geotechnical Engineering Report  
Yarrow Bay Marina  
5207 Lake Washington Boulevard NE  
Kirkland, Washington

Dear Mr. Parent:

We are pleased to present the enclosed copies of the subject report. This report summarizes the results of our subsurface exploration, geologic hazards, and geotechnical engineering studies, and offers preliminary recommendations for the design of the new Yarrow Bay Marina building. Our recommendations are preliminary in that construction details have not been finalized at the time of this report.

We have enjoyed working with you on this study and are confident that the recommendations presented in this report will aid in the successful completion of your project. If you should have any questions or if we can be of additional help to you, please do not hesitate to call.

Sincerely,  
**ASSOCIATED EARTH SCIENCES, INC.**  
Kirkland, Washington

  
\_\_\_\_\_  
Bruce L. Blyton, P.E.  
Principal Engineer

BLB/ld  
KE05951A2  
Projects\20050951\KEIWP

**SUBSURFACE EXPLORATION, GEOLOGIC HAZARD, AND  
PRELIMINARY GEOTECHNICAL ENGINEERING REPORT**

**YARROW BAY MARINA**

**Kirkland, Washington**

*Prepared for:*  
**Goodman Real Estate**  
2801 Alaskan Way, Suite 200  
Seattle, Washington 98121

*Prepared by:*  
**Associated Earth Sciences, Inc.**  
911 5<sup>th</sup> Avenue, Suite 100  
Kirkland, Washington 98033  
425-827-7701  
Fax: 425-827-5424

April 6, 2006  
Project No. KE05951A

## I. PROJECT AND SITE CONDITIONS

### 1.0 INTRODUCTION

This report presents the results of our subsurface exploration, geologic hazard, and geotechnical engineering study for the proposed Yarrow Bay Marina building located at 5207 Lake Washington Boulevard NE in Kirkland, Washington (Vicinity Map, Figure 1). The site layout, including the locations of explorations completed for this study, is presented on the Site and Exploration Plan, Figure 2. Our recommendations are preliminary in that construction details have not been finalized at the time of this report. As development plans and construction techniques are developed, the conclusions and recommendations contained in this report should be reviewed and modified, or verified, as necessary.

### 1.1 Purpose and Scope

The purpose of this study was to provide subsurface data to be used in the preliminary design of the proposed marina building. Our study included a review of available geologic literature, drilling exploration borings, and completing geologic studies to assess the type, thickness, distribution, and physical properties of the subsurface sediments and shallow ground water conditions. Geologic hazard evaluations and geotechnical engineering studies were also conducted to determine the suitable geologic hazard mitigation techniques, construction excavation and shoring recommendations, the type of suitable foundation, allowable foundation soil bearing pressures, anticipated settlements, basement/retaining wall lateral pressures, floor support recommendations, and drainage considerations. This report summarizes our current fieldwork and offers preliminary hazard mitigation and development recommendations based on our present understanding of the project.

### 1.2 Authorization

Written authorization to proceed with this study was granted by Mr. Matt Parent of Goodman Real Estate. Our study was accomplished in general accordance with our scope of work letter dated January 3, 2006. This report has been prepared for the exclusive use of Goodman Real Estate and their agents for specific application to this project. Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering and engineering geology practices in effect in this area at the time our report was prepared. No other warranty, express, or implied is made. Our observations, findings, and opinions are a means to identify and reduce the inherent risks to the owner.

## 2.0 PROJECT DESCRIPTION

The site currently supports a marina building offering support and fueling for moored boats. It is our understanding that the building will be completely removed and rebuilt in the northwest portion of the site. We understand that the new structure will be two stories with a basement and will likely use wood-frame or masonry construction. The existing fuel tanks on-site are expected to be relocated and reused, and existing bulkheads may be modified to allow for alternative boat pier arrangements. We expect that new asphalt and/or concrete pavements will be constructed to the south and west of the proposed building. Foundations are expected to consist of shallow conventional footings with light to moderate foundation loads.

The property generally sloped down from Lake Washington Boulevard NE (on the east) to Lake Washington, which borders the property on the west side. An approximate 8-foot-high rockery wall was located on the east side of the property providing grade separation between Lake Washington Boulevard NE and the subject property. A series of gravel drive areas cross the site creating level benches for boat and trailer parking. Along the west side of the property are the offices of the active Yarrow Bay Marina. An asphalt drive along the south side of the property provides access to the marina. The ground surface ranged from generally level to 1.5H:1V (Horizontal:Vertical) in between the level benches. These steeper slope areas were limited to approximately 6 to 8 vertical feet. Total elevation change across the property was on the order of 32 feet. Vegetation on the areas not paved consisted primarily of grasses.

A small, cast-in-place, concrete basement structure is located near the mid-section of the south side of the proposed building area. This structure is currently unused, and appears to be a remnant of an earlier residence/structure on the property.

We have previously performed a geotechnical study on the lot with regards to the construction of a proposed retail building on the east half of the property. The previous study was performed in 2002 and was titled "Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report, Yarrow Bay Office Building" (Project No. KE02247A). Information from that report will be used in conjunction with our current study.

*change  
"retail" to  
office*

## 3.0 SUBSURFACE EXPLORATION

Our field study included drilling two exploration borings to gain information regarding subsurface conditions in the area of the proposed marina building. The various types of sediments, as well as the depths where characteristics of the sediments changed, are indicated on the exploration logs presented in the Appendix of this report. The depths indicated on the logs where conditions changed may represent gradational variations between sediment types in the field. The explorations were located generally within the footprint of the proposed marina building.

The conclusions and recommendations presented in this report are based on the two exploration borings completed for this study. The number, locations, and depths of the explorations were accomplished within site and budgetary constraints. Because of the nature of exploratory work below ground, extrapolation of subsurface conditions between field explorations is necessary. It should be noted that differing subsurface conditions sometimes may be present between exploration locations due to the random nature of deposition and the alteration of topography by past grading or filling. The nature and extent of any variations between the field explorations may not become fully evident until construction. If variations are observed at that time, it may be necessary to re-evaluate specific recommendations in this report and make appropriate changes.

### 3.1 Exploration Borings

The exploration borings were completed by advancing a 4¼-inch, inside-diameter, hollow-stem auger with a truck-mounted drill rig. During the drilling process, samples were obtained at generally 5-foot intervals. The exploration borings were continuously observed and logged by a geotechnical engineer from our firm. The exploration logs presented in the Appendix are based on the field logs, drilling action, and inspection of the samples secured.

Disturbed, but representative samples were obtained by using the Standard Penetration Test (SPT) procedure in accordance with American Society for Testing and Materials (ASTM):D 1586. This test and sampling method consists of driving a standard 2-inch, outside-diameter, split-barrel sampler a distance of 18 inches into the soil with a 140-pound hammer that free falls a distance of 30 inches. The number of blows for each 6-inch interval is recorded, and the number of blows required to drive the sampler the final 12 inches is known as the Standard Penetration Resistance ("N") or blow count. If a total of 50 blows are recorded within one 6-inch interval, the blow count is recorded as the number of blows for the corresponding number of inches of penetration. The resistance, or N-value, provides a measure of the relative density of granular soils or the relative consistency of cohesive soils; these values are plotted on the attached exploration boring logs.

The samples obtained from the split-barrel sampler were classified in the field and representative portions placed in watertight containers. The samples were then transported to our laboratory for further visual classification, as necessary.

## 4.0 SUBSURFACE CONDITIONS

Subsurface conditions at the project site were inferred from the field explorations accomplished for this study, visual reconnaissance of the site, and review of selected applicable geologic literature. As shown on the field logs and detailed below, we encountered up to 6 feet of fill overlying Possession Drift deposits. The following section presents more detailed subsurface information.



#### 4.1 Stratigraphy

##### *Fill*

Fill soils (those not naturally placed) were encountered in both of our exploration borings completed for this study. The fill ranged in thickness from 4½ to 6 feet. As noted on the exploration logs, the fill was generally loose, moist, brown to oxidized gray sand with variable amounts of silt and gravel. These fill materials vary in both quality and depth. The existing fill soil is not considered suitable for structural support.

##### *Possession Drift*

Below the surficial fill soil in exploration borings EB-1 and EB-2, the soil was interpreted to be Possession Drift. These sediments generally consisted of medium dense to dense, moist to saturated, fine sand with varying amounts of silt and gravel. Possession Drift was deposited in the Late Pleistocene prior to the arrival of the Vashon-age ice sheet. The unit extended below the termination depth of the exploration borings. This soil is considered suitable for structural support.

The above geologic interpretation of the subsurface soil is not in strict agreement with published geologic literature for the area. The *Geologic Map of the Kirkland Quadrangle, Washington* by James P. Minard (1983) shows the site as being underlain by modified land (i.e., fill soil). The *Geologic Map of Surficial Deposits in the Seattle 30' x 60' Quadrangle, Washington* by James C. Yount, James P. Minard, and Glenn R. Dembroff, 1993, also shows the site as being underlain by modified land. The Possession Drift deposits identified within our explorations are not shown in the area of the site on either map. Modified/filled land may exist off-site in the immediate shoreline area and north of the site in the vicinity of the Carillon Point development area.

#### 4.2 Hydrology

Ground water was encountered in both of our borings at depths of between 10 and 12 feet below existing site grades at the time of drilling. Due to the proximity to Lake Washington, the encountered ground water is likely hydraulically connected to Lake Washington, and we expect that the stabilized (static) ground water surface would be located near elevation 21, or approximately 4 to 5 feet below the existing ground surface within the proposed building area. Perched ground water may also be encountered elsewhere on the site within the uncontrolled existing fill soil.

The level of Lake Washington varies from a high of 22 feet to a low of 20 feet, as measured at the Ballard Locks. The highest lake levels occur in June and the lowest in December through February.

## II. GEOLOGIC HAZARDS AND MITIGATIONS

The following discussion of potential geologic hazards is based on the geologic, slope, and ground water conditions as observed and discussed herein. The approximate western half of the site lies within a Seismic Hazard area, according to City of Kirkland *Sensitive Areas Maps*. The upper, western portion of the site is mapped by the City as a moderate Landslide and Erosion Hazard Area. The discussion will be limited to potential seismic, land sliding or mass wasting, and erosion hazards.

### 5.0 SEISMIC HAZARDS AND MITIGATION

Earthquakes occur in the Puget Lowland with great regularity. The majority of these events are small and are usually not felt. However, large earthquakes do occur, as evidenced by the 1949, 7.2-magnitude event, the 1965, 6.5-magnitude event, and the 2001, 6.8-magnitude event. The 1949 earthquake appears to have been the largest in this area during recorded history. Evaluation of earthquake return rates indicates that an earthquake of the magnitude between 5.5 and 6.0 is likely within a given 25- to 40-year period.

Generally, there are four types of potential geologic hazards associated with large seismic events: 1) surficial ground rupture, 2) seismically induced landslides, 3) liquefaction, and 4) ground motion. The potential for each of these hazards to adversely impact the proposed project is discussed below.

#### 5.1 Surficial Ground Rupture

The nearest known fault trace to the project is the Seattle Fault. Recent studies by the U.S. Geological Survey (USGS) (e.g., Johnson et al., 1994, *Origin and Evolution of the Seattle Fault and Seattle Basin*, Washington, Geology, v.22, p. 71-74; and Johnson et al., 1999, *Active Tectonics of the Seattle Fault and Central Puget Sound Washington - Implications for Earthquake Hazards*, Geological Society of America Bulletin, July 1999, v.111, n. 7, p. 1042-1053) suggest that an east-to-west-trending thrust fault zone (Seattle Fault) may project about 4 miles south of the project site. The recognition of this fault is relatively new, and data pertaining to it are limited, with the studies still ongoing. According to the USGS studies, the latest movement of this fault was about 1,100 years ago when about 20 feet of surficial displacement took place. This displacement can presently be seen in the form of raised, wave-cut beach terraces along Alki Point in West Seattle and along Restoration Point at the south end of Bainbridge Island. The recurrence interval of movement along this fault system is still unknown, although it is hypothesized to be in excess of several thousand years.

Due to the suspected long recurrence interval, the potential for ground rupture is considered to be low during the expected life of the structure. It is our opinion, based on existing geologic data, that the risk of surface rupture impacting the proposed project is low, and no mitigations are recommended.

## 5.2 Seismically Induced Landslides

The site gradually slopes down to the west at an approximate slope of 7H:1V. There are steeper areas on the site in between the gravel drives for boat parking. These steeper areas are inclined at an approximate 1.5H:1V slope. However, the vertical height of these slopes is 6 to 8 feet. Additionally, glacially consolidated soil (below a thin layer of surficial fill soil) was encountered within the explorations completed for this study. Therefore, the landslide risk is considered low, and no mitigations are necessary. Due to the depth of the planned excavations and the proximity to property boundaries, we expect that shoring will be required along the northern side of the site. Shoring is discussed in Section 9.0 of this report.

## 5.3 Liquefaction

Liquefaction is a condition where loose, saturated, typically sandy soils lose shear strength when subjected to high intensity, cyclic loads, such as occur during earthquakes. The resulting reduction in strength can cause differential foundation settlements and slope failures. Loose, saturated, fine-grained sands that cannot dissipate the buildup of pore water pressure are the predominant type of sediments subject to liquefaction.

The encountered stratigraphy has a low potential for liquefaction due to the very dense condition of the soil at depth. Furthermore, we expect that foundations will be founded in these soils. Although ground water was encountered at a depth of about 10 to 12 feet (potentially 4 to 5 feet, see Section 4.2) below existing site grades, or above the foundation units, we expect that footing drains and dewatering techniques will adequately remove water from footing areas. As such, no liquefaction mitigations are required.

## 5.4 Ground Motion

Guidelines presented in the 2003 *International Building Code* (IBC) Section 1615 may be used for project design. Information presented in Figure 1615(1) of the IBC indicates a mapped spectral acceleration for short periods of  $S_s = 1.24$ . Information presented in Figure 1615(2) of the IBC indicates a mapped spectral acceleration for a 1-second period of  $S_1 = 0.42$ . Based on the results of subsurface exploration and on an estimation of soil properties at depth utilizing available geologic data, Site Class "C" in conformance with Table 1615.1.1 of the IBC may be used. These values correspond to site coefficients  $F_a = 1.0$  and  $F_v = 1.4$  in conformance with IBC Tables 1615.1.2(1) and 1615.1.2(2), respectively.

## 6.0 EROSION HAZARDS AND MITIGATION

To mitigate the erosion hazard potential and off-site sediment transport during and after construction, we would recommend the following:

1. All storm water from impermeable surfaces, including roadways and roofs, should be tightlined into approved facilities.
2. Clean water entering construction areas should be collected and routed around disturbed areas and released below construction limits in accordance with applicable permits.
3. Temporary sediment catchment/treatment facilities should be constructed to intercept and treat any sediment-laden water from the construction area and prevent it from flowing directly into the lake.
4. To the extent possible, existing paved access surfaces should be left intact and used during construction. Exposed soil that will be subject to repeated ingress/egress traffic should be covered with a layer of crushed quarry rock or asphalt treated base (ATB).
5. Check dams should be used along drainage swales, and silt fences should be placed along the lower elevations of clearing on the property.
6. If possible, construction should proceed during the drier periods of the year, and disturbed areas should be revegetated as soon as possible. Temporary erosion control measures should be maintained until permanent erosion control measures are established.
7. Soils that are to be reused around the site should be stored in such a manner as to reduce erosion. Protective measures may include, but are not necessarily limited to, covering with plastic sheeting, the use of low stockpiles in flat areas, or the use of straw bales/silt fences. Due to the limited space on the site, it is not anticipated that large quantities of excess soil will be stockpiled on-site.

### III. PRELIMINARY DESIGN RECOMMENDATIONS

#### 7.0 INTRODUCTION

Our explorations indicate that, from a geotechnical standpoint, the parcel is suitable for the proposed development provided that the recommendations contained herein are properly followed. We expect that basement elevations are to be about 14 feet below existing site grades and that footing excavations will encounter dense to very dense Possession Drift deposits. As such, conventional spread footing foundations may be used for structural support.

The use of shoring should be expected on the north side of the planned structure due to the depth of the anticipated excavation and the proximity of the structure to the property line. The basement elevation is expected to be on the order of 9 feet below Lake Washington. Therefore, due to the potential for permeable, saturated soils located below the ground water table, we recommend that sheet piling be used to construct a cofferdam around the proposed construction areas. The sheet piling will reduce the amount of ground water seeping into the excavation as construction proceeds, and will also act as shoring along the north side of the planned structure.

Even with the use of sheet piling to construct a cofferdam around the construction areas, moderate to significant ground water seepage should be expected in basement levels. Shallow swales/sumps are expected to be capable of collecting and controlling the seepage during construction, while conventional wall, footing, and subslab drainage is recommended for permanent control of seepage. In the event that subslab drainage and footing drains do not perform as expected, we also recommend that areas below the Lake Washington ordinary high water line (elevation 21.8) be waterproofed, and that the building be designed to resist buoyant forces.

#### 8.0 SITE PREPARATION

Existing utilities and underground storage tanks should be removed from the proposed building area. It is our understanding that an existing gasoline tank is below portions of the proposed building. The tank must be completely removed, as per applicable state and county regulations, and the resulting depressions should be backfilled with structural fill, as discussed under the *Structural Fill* section. The tank removal should only be performed by a licensed professional.

Site preparation of planned building and road/parking areas should include removal of all trees, brush, debris, and any other deleterious material. Additionally, the upper organic topsoil should be removed and the remaining roots grubbed. Areas where loose surficial soils exist

due to grubbing operations should be considered as fill to the depth of disturbance and treated as subsequently recommended for structural fill placement.

Existing fill should be stripped down to the underlying, medium dense to very dense natural soil. Since the density of the soil is variable, random soft pockets may exist, and the depth and extent of stripping can best be determined in the field by the geotechnical engineer or engineering geologist. We recommend that pavement areas be proof-rolled to identify any soft areas; soft areas should be overexcavated and backfilled with structural fill. The fill may be reused for structural fill provided it is free of organic material and debris.

### 8.1 Temporary Cut Slopes

In our opinion, stable construction slopes should be the responsibility of the contractor and should be determined during construction based on local conditions encountered at that time. For estimating purposes, however, we anticipate that temporary, unsupported cut slopes in the existing fill can be planned at a maximum slope of 1.5H:1V. Temporary, unsupported cut slopes in the underlying Possession Drift can be planned at a maximum slope of 1H:1V. If ground water seepage is encountered during construction, the temporary slopes may have to be laid back at a shallower inclination and/or protected with geotextile filter fabric and crushed rock to reduce piping of the sediments. As is typical with earthwork operations, some sloughing and raveling may occur, and cut slopes may have to be adjusted in the field. In addition, WISHA/OSHA regulations should be followed at all times.

### 8.2 Site Disturbance

The shallow on-site soils contain more than 5 percent of fine-grained material making them moisture-sensitive and subject to disturbance when wet. The contractor must use care during site preparation and excavation operations so that the underlying soils are not softened. If disturbance occurs, the softened soils should be removed and the area brought to grade with structural fill. Consideration should be given to protecting access and staging areas with an appropriate section of crushed rock or ATB. We recommend leaving as much existing asphalt in place as is possible to serve as an access road.

If crushed rock is considered for the access and staging areas, it should be underlain by an engineering stabilization fabric to reduce the potential of fine-grained materials pumping up through the rock and turning the area to mud. The fabric will also aid in supporting construction equipment, thus reducing the amount of crushed rock required. We recommend that at least 10 inches of rock be placed over the fabric; however, due to the variable nature of the near-surface soils and differences in wheel loads, this thickness may have to be adjusted by the contractor in the field.

### 8.3 Construction Dewatering

Ground water was encountered while drilling exploration borings EB-1 and EB-2 at 10 and 12 feet below existing site grades, respectively. However, based on lake elevations, the stabilized ground water surface may be approximately 4 to 5 feet below existing grades. We estimate that ground water elevations, determined from a topographic map provided to us, are on the order of elevation 20 to 21. As such, seepage into the building excavation (finish floor at approximate elevation 13 feet) is likely. Since the sediments are predominately fine sands with trace silt, the flow rates per unit area are expected to be moderate to heavy. Therefore, installation of a series of dewatering wells should be anticipated if open cuts below ground water surface are planned. Where sheet pile shoring is used, control of ground water within the cofferdam area can be planned using a series of shallow perimeter swales/ditches with open sumps that can be pumped, as necessary.

Permanent drainage for the building envelope (footing, wall, and subslab drains) should be provided, as discussed in Section 14.0, *Drainage Considerations*, and Section 14.2, *Retaining Wall Drainage*.

### 9.0 SHEET PILE WALL DESIGN PARAMETERS

Excavation for construction of the proposed marina building will require maximum vertical cuts of approximately 17 to 14 feet along the north and east, and south and west sides of the building, respectively. This section of the report presents preliminary design criteria for design of shoring for the excavation. Currently, a sheet pile shoring system is recommended to provide temporary support of the excavation and to permanently reduce ground water flow that reaches the building drain system.

Suitable embedment of the sheets is critical to the performance of the wall. We recommend test driving sheet piling to verify that suitable embedment into the lower, dense sand can be achieved. If the required penetration cannot be achieved using conventional driving methods, pre-excavation, a larger vibratory hammer, or alternate shoring system may be required. Alternative shoring systems, such as soldier pile or secant pile walls, would be designed using the same earth pressure values as the sheet pile wall.

Shoring may be designed to resist active lateral earth pressures. An active earth pressure condition theoretically assumes that the wall is allowed to yield laterally approximately one-tenth of 1 percent of the wall height. This small amount of yielding typically results in some minor settlement behind the wall. Considering the dense nature of the glacial sediments underlying the site, it is anticipated that the influence of wall deflection during construction should be minimal. If minor settlement does occur, we estimate it will occur within a distance behind the wall equal to the height of the wall. The tolerance for settlement should be decided upon before completing the shoring design.

The final permanent sheet pile embedment depth should satisfy moment equilibrium equations for both balanced and unbalanced hydrostatic forces incorporating the aforementioned surcharge pressures, plus a factor of safety of at least 1.5. The sheet pile design should consider a balance of sheet thickness and aggressiveness of shape (higher moment of inertia and section modulus). The most economical design should consider satisfaction of moment equilibrium, consideration of the soils into which the sheets will be driven (medium dense to very dense sand), and sheet availability. Sheet pile designs should be prepared in accordance with Section 2-09.3(3)D, *Shoring and Cofferdams*, as presented in the 2006 Washington State Department of Transportation (WSDOT) Standard Specifications. Nominal sheet thickness, once selected, should be increased by  $\frac{1}{8}$  inch to account for corrosion, if the sheets are to be left permanently in place.

For wall heights such that a cantilever wall is not feasible, the wall will have to be anchored as the excavation progresses. We recommend anchoring the wall using tiebacks. A tieback system usually consists of drilling behind the sheet pile wall at an angle below horizontal and installing high strength rods or cables with a grout anchor. Easements will have to be obtained for any necessary tieback anchors. The anchor holes should be drilled in a manner to minimize loss of ground and not endanger adjacent anchors, surrounding subgrades, or buried utilities due to subsidence. Any permanent shoring elements should be provided with suitable corrosion protection.

### 9.1 Lateral Earth Pressures for Retained Soil

For a cantilever shoring system, the applied lateral pressure can be represented by a triangular pressure distribution termed as an equivalent fluid density. We have provided equivalent fluid densities for shoring design based on a level backslope. Pressure distributions are shown on the attached Figure 3. The active pressure distribution is applied over the pile spacing. Temporary and permanent shoring should be designed using similar active equivalent fluid pressures.

### 9.2 Passive Soil Resistance

Assuming the sheet piles are embedded in undisturbed, dense Possession Drift sediments, temporary and permanent sheet piles should be designed using a passive equivalent fluid pressure of 200 pounds per cubic foot (pcf). This pressure accounts for buoyant soil unit weight below the water table and a factor of safety of 1.5.

### 9.3 Tiebacks

Tieback anchors may be necessary for lateral support of the higher segments of the sheet pile wall. Any permanent anchors should be provided with double-corrosion protection. The tieback anchors may be designed with a tentative allowable tieback-soil adhesion of 1,000 pounds per square foot (psf) when the anchor is located in medium dense to dense soil (such as



the Possession Drift). The anchors must extend behind the no-load zone, as defined on Figure 3.

Tieback anchors should be constructed with centralizers/spacers along the bonded length to keep the anchor centered within the drilled hole. Tiebacks should also be fitted with a bond breaker, such as solid polyvinyl chloride (PVC) pipe, in the no-load zone.

Anchor tests must be performed to verify that the design resistance is available on the installed anchors. A common anchor testing program would consist of at least two 200 percent verification tests of the design or allowable load in each major soil unit, plus proof-loading every production anchor to 130 percent of the design load. These tests should conform to the recommendations of the Post-Tensioning Institute for verification testing and proof-loading of production anchors. Anchor tests and their results should be observed and recorded by a representative of Associated Earth Sciences, Inc. (AESI). Anchors should be locked off at 100 percent of the design loads. The anchors should be designed to fail by anchor pullout rather than by yielding steel.

#### 9.4 Inspections

Since completion of the piling and tiebacks takes place below ground, the judgment and experience of the geotechnical engineer or his field representative must be used as a basis for determining the acceptability of each pile. Consequently, the use of the presented design information requires that a qualified geotechnical engineer or engineering geologist from our firm inspect all piles and shoring installation. AESI, acting as the owner's field representative, would keep records of pertinent installation data. A final summary report would then be distributed following completion of pile installation.

#### 9.5 Monitoring

A survey of the surrounding structures and other critical reference points should be performed prior to construction activities. These points should then be accurately monitored, both horizontally and vertically, by a licensed surveyor until the excavation is complete and permanent walls are constructed. A photographic and/or video survey is also recommended for surrounding structures to document their condition prior to development. This monitoring would act to provide early notice of site settlement and provide an accurate record of pre-construction site conditions.

### 10.0 STRUCTURAL FILL

Structural fill may be necessary to establish desired grades, backfill around foundations, and for utility trench backfill. All references to structural fill in this report refer to subgrade preparation, fill type, and placement and compaction of materials as discussed in this section.

If a percentage of compaction is specified under another section of this report, the value given in that section should be used.

After overexcavation/stripping has been performed to the satisfaction of the geotechnical engineer/engineering geologist, the upper 12 inches of exposed ground should be recompacted to at least 90 percent of the modified Proctor maximum density using ASTM:D 1557 as the standard. If the subgrade contains too much moisture, adequate recompaction may be difficult or impossible to obtain and should probably not be attempted. In lieu of recompaction, the area to receive fill should be blanketed with washed rock or quarry spalls to act as a capillary break between the new fill and the wet subgrade. Where the exposed ground remains soft and further overexcavation is impractical, placement of an engineering stabilization fabric may be necessary to prevent contamination of the free-draining layer by silt migration from below.

After recompaction of the exposed ground is tested and approved, or a free-draining rock course is laid, structural fill may be placed to attain desired grades. Structural fill is defined as non-organic soil, acceptable to the geotechnical engineer, placed in maximum 10-inch loose lifts with each lift being compacted to at least 95 percent of ASTM:D 1557. In the case of roadway and utility trench filling, the backfill should be placed and compacted in accordance with the City of Kirkland codes and standards. The top of the compacted fill should extend horizontally outward a minimum distance of 3 feet beyond the locations of footings or roadway edges before sloping down at a maximum angle of 2H:1V.

The contractor should note that any proposed fill soils must be evaluated by AESI prior to their use in fills. This would require that we have a sample of the material 72 hours in advance to perform a Proctor test and determine its field compaction standard. Soils in which the amount of fine-grained material (smaller than the No. 200 sieve) is greater than approximately 5 percent (measured on the minus No. 4 sieve size) should be considered moisture-sensitive. Use of moisture-sensitive soil in structural fill should be limited to favorable dry weather and dry subgrade conditions. The upper on-site soils generally contained significant amounts of silt and are considered moisture-sensitive. In addition, construction equipment traversing the site when the soils are wet can cause considerable disturbance. If fill is placed during wet weather or if proper compaction cannot be obtained, a select import material consisting of a clean, free-draining gravel and/or sand should be used. Free-draining fill consists of non-organic soil with the amount of fine-grained material limited to 5 percent by weight when measured on the minus No. 4 sieve fraction.

A representative from our firm should inspect the stripped subgrade and be present during placement of structural fill to observe the work and perform a representative number of in-place density tests. In this way, the adequacy of the earthwork may be evaluated as filling progresses and any problem areas may be corrected at that time. It is important to understand that taking random compaction tests on a part-time basis will not ensure uniformity or acceptable performance of a fill. As such, we are available to aid the owner in developing a suitable monitoring and testing frequency.

## 11.0 FOUNDATIONS

### 11.1 Bearing Pressures

Spread footings may be used for foundation support when founded on medium dense to dense natural soils or structural fill placed as previously discussed. Footings supported on these soils may be designed for an allowable bearing capacity of 3,000 psf, including both dead and live loads. An increase of one-third may be used for short-term wind or seismic loading.

Excavations that encounter foundation elevations before the very dense Possession Drift sediments will require overexcavation to reach bearing soils. Footings may be stepped down to reach bearing soil or the excavation backfilled with 2- to 4-inch quarry spalls. Quarry spall backfill should extend beyond the footing perimeters a distance equal to at least one-half the fill depth.

### 11.2 Base Friction

Footings may be designed using a base friction coefficient of 0.35. This is an allowable value and includes a factor of safety of at least 1.5.

### 11.3 Minimum Depth

All footings should be buried at least 18 inches into the surrounding soil for frost protection. However, all footings must penetrate to the prescribed bearing stratum, and no footing should be founded in or above loose, organic, or existing fill soils. Building footings should have a minimum width of 24 inches.

It should be noted that the area bounded by lines extending downward at a 1H:1V inclination from any footing must not intersect another footing or intersect a filled area that has not been compacted to at least 95 percent of ASTM:D 1557. In addition, a 1.5H:1V line extending down from any footing must not daylight because sloughing or raveling may eventually undermine the footing. Thus, footings should not be placed near the edge of steps or cuts in the bearing soils.

### 11.4 Subgrade Protection

Due to submerged conditions expected at basement elevations, we recommend that subgrade soils be protected with a rock base consisting of 2- to 4-inch quarry spalls. Quarry spalls would adequately protect subgrade soils from disturbance during construction, but would also allow for water to be collected and pumped out of the excavation. The rock should be at least 12 inches thick and placed after the basement excavation is completed.

### 11.5 Foundation Settlement

Anticipated settlement of footings founded on approved bearing sediments or approved structural fill should be on the order of 1 inch or less. However, disturbed soil not removed from footing excavations prior to footing placement could result in increased settlements.

### 11.6 Footing Observations

All footing areas should be observed by AESI prior to placing concrete to verify that the design bearing capacity of the soils has been attained and that construction conforms to the recommendations contained in this report. Such inspections may be required by the City of Kirkland. Perimeter footing drains should be provided, as discussed under the section on *Drainage Considerations*.

## 12.0 RETAINING WALLS

Permanent basement walls should be designed for the same lateral earth pressure as the shoring walls (34 pcf equivalent fluid), plus any applicable surcharge loadings (traffic, slopes, adjacent structures, etc). The above value assumes drained conditions. We recommend that retaining walls extending below ground water elevations (assumed to be elevation 22) should be designed using an equivalent fluid pressure of 80 pcf. These walls should be water-proofed in the event that the drain/drain system fails or if submerged conditions are anticipated.

Rigid, braced walls should be designed for an equivalent fluid of 53 pcf, plus any applicable surcharges, and 88 pcf below the ground water surface.

Wall backfill must be free-draining (minimum 5 percent passing the No. 200 sieve, based on the minus No. 4 sieve fraction) and have footing drains for the above values to apply.

## 13.0 FLOOR SUPPORT

We recommend that materials below the basement floor consist of a 12-inch minimum, 2- to 4-inch quarry spall pad over dense to very dense natural sediments. A (10-mil minimum) polyethylene plastic vapor retarder should also be used under the floor to help prevent passage of moisture vapor through the floor. Installation of the vapor retarder will require the placement of a minimum, 4-inch-thick layer of 1- to ½-inch-size crushed rock over the quarry spalls to create a base for the vapor retarder. The crushed rock should be compacted to structural fill standards.

Installation of a subslab drainage system is recommended, as discussed in Section 14.0, *Drainage Considerations*.

## 14.0 DRAINAGE CONSIDERATIONS

### 14.1 Foundation Drains

Permanent foundation walls should be provided with a drain at the base of the footing elevation. Drains should consist of rigid, perforated, PVC pipe surrounded by washed pea gravel. The level of the perforations in the pipe should be set approximately 2 inches below the bottom of the footing. The foundation drains should flow to a sump collection point with a pump discharge.

### 14.2 Retaining Wall Drainage

All retaining walls should be lined with a minimum, 12-inch-thick, washed gravel blanket, or backfilled with free-draining fill to within 1 foot of the ground surface. Drainage materials must be hydraulically connected to a (retaining wall) footing drain. Exterior grades adjacent to walls should be sloped downward away from the structure to achieve surface drainage.

If permanent foundation walls are cast against the shoring walls, a synthetic drainage composite material should be installed between the shoring wall and the retaining wall. The drainage composite should discharge to a drainage system either inside or outside of the permanent foundation wall. The drainage system should consist of a rigid, perforated, PVC pipe, fully enveloped in washed pea gravel. The drainage pipe should be tightlined to the sump/pump discharge.

### 14.3 Subslab Drains

Exploration borings EB-1 and EB-2 encountered free ground water between approximate elevation 14 and 17. The maximum stabilized ground water level is anticipated to be controlled by the lake elevation (elevation 20 to 21) and will likely exceed the planned basement finish floor elevation of 13. We recommend that a minimum, 12-inch-thick, quarry spall pad be constructed at basement elevations, as noted in Section 13.0, *Floor Support*. The quarry rock should include 4-inch-diameter, rigid, PVC collector pipes located approximately 15 feet on-center. The collector pipes should connect to a larger manifold pipe that flows to the sump/pump discharge. Final sizing of the subslab drainage system should be made based upon the ground water flows encountered during construction.

#### 14.4 Buoyancy

It is our recommendation that the proposed building use a sheet pile cofferdam in conjunction with a series of footing/wall/subslab drains that flow to a sump/pump to remove water from foundation and floor slab areas. Since this system must rely on the pump for final discharge of water, failure of the pump will result in hydrostatic buoyant forces on the lower building envelope. Thus, we recommend that the foundation walls and floor slab should be designed to resist buoyant uplift forces using the Uplift Resistance Diagram, Figure 4.

Lake Washington has an ordinary high water line elevation of about 22. Basements are expected to be at elevation 13, with ground water encountered between elevation 14 and 17 at the time of our explorations. It is important to note that ground water elevations are likely higher than what we observed during our explorations. For design purposes, we recommend that buoyant forces be considered from the Lake Washington ordinary high water elevation.

Buoyant forces on the proposed building will be resisted primarily by the dead weight of the structure, in conjunction with soil friction. In the event that additional forces are required to resist uplift forces, we recommend that either a thickened floor slab (greater concrete weight) or that an exterior slab be extended along the perimeter foundations (additional weight due to backfill soils above foundation extension) to provide additional resistance to uplift forces.

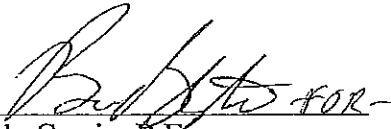
Where design conditions change from those anticipated and presented in the above sections, AESI must be allowed to re-evaluate our recommendations, and if necessary, adjust them to conform to the final design.

#### 15.0 PROJECT DESIGN AND CONSTRUCTION MONITORING

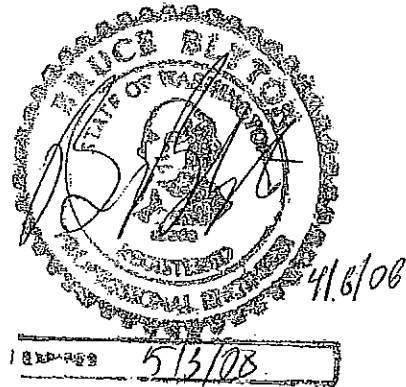
Our recommendations are preliminary in that construction details have not been finalized at the time of this report. We are available to provide additional consultation as the project design develops and possibly changes from that upon which this report is based. We are also available to provide geotechnical engineering monitoring services during construction. In the event that variations in subsurface conditions become apparent during construction, engineering decisions may have to be made in the field.

We have enjoyed working with you on this study and are confident these recommendations will aid in the successful completion of your project. Should you have any questions or require further assistance, please do not hesitate to call.

Sincerely,  
ASSOCIATED EARTH SCIENCES, INC.  
Kirkland, Washington



Edwardo Garcia, P.E.  
Senior Staff Engineer

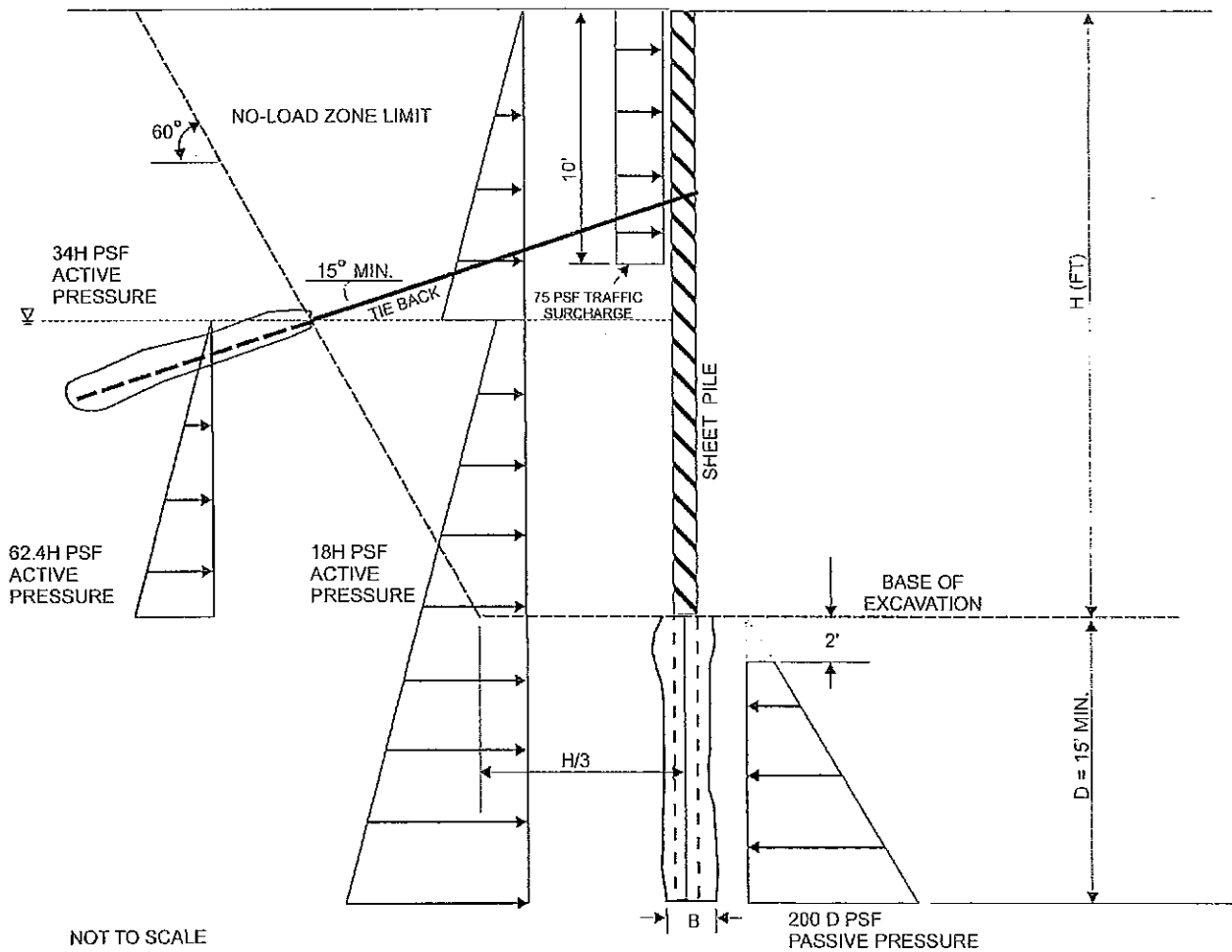


Bruce L. Blyton, P.E.  
Principal Engineer

- Attachments:
- Figure 1: Vicinity Map
  - Figure 2: Site and Exploration Plan
  - Figure 3: Preliminary Sheet Pile Retaining Wall Design Criteria
  - Figure 4: Uplift Resistance Diagram
  - Appendix: Exploration Logs







NOTES:

1. Diagram is illustrative of perimeter shoring walls.
2. Sheet pile embedment depth "D" should consider necessary kickout and overturning resistance.
3. All tiebacks should be prestressed to 130 percent of design load and locked off at 100 percent of design load. Tieback anchor zone is to be located behind the no-load zone. Two or three tiebacks should be proof-tested to 200 percent of design load per Post-Tensioning Institute guidelines. Sufficient tendons should be provided for test loads.
4. Allowable tieback - soil adhesion = 1000 psf in glacially consolidated soil; includes factor of safety of 2.
5. Passive pressures include a factor of safety of 2.
6. Diagram does not include pressures due to surface surcharges from any adjacent structures. These pressures must be provided by the structural engineer if applicable.

05951 yarrow bay office bidg \ 05951 Sheet Pile.cdr

Associated Earth Sciences, Inc.

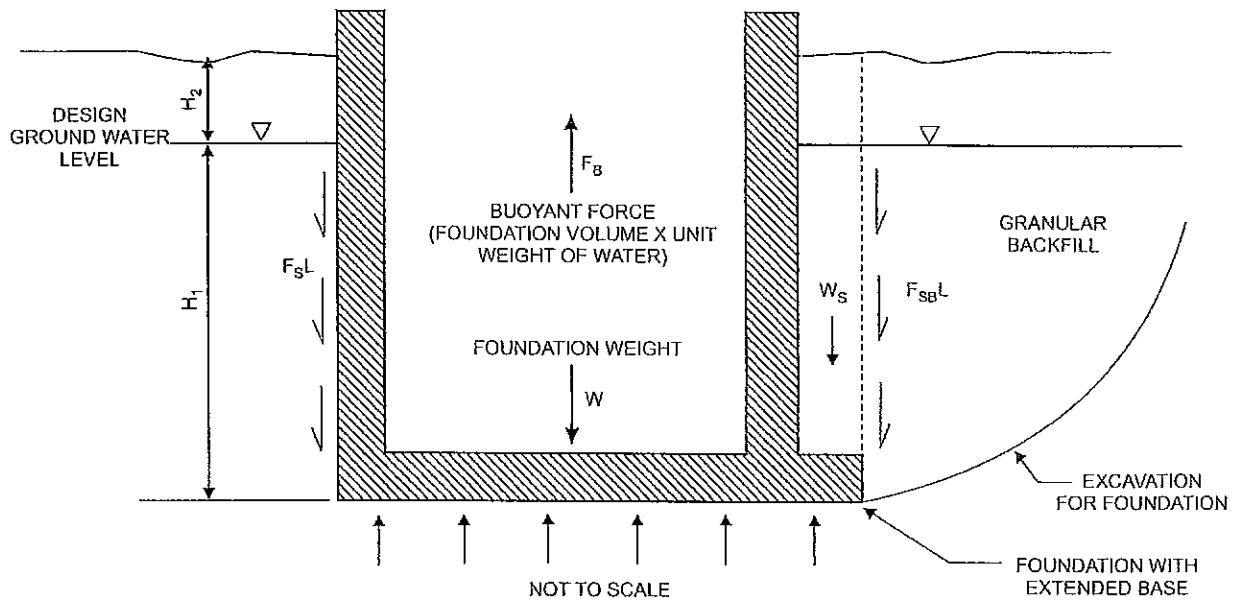


**PRELIMINARY SHEET PILE  
RETAINING WALL DESIGN CRITERIA  
YARROW BAY MARINA  
KIRKLAND, WASHINGTON**

FIGURE 3

DATE 4/06

PROJ. NO KE05951A



Uplift on foundation bottom could result in high moments in bottom slab.

$$\text{FACTOR OF SAFETY} = \frac{W + F_S L}{F_B}$$

$$\text{FACTOR OF SAFETY WITH EXTENDED BASE} = \frac{W + W_S + F_{SB} L}{F_B}$$

ASSUME:

$$\gamma = 110 \text{ PCF}$$

$$\phi = 30^\circ$$

$$\delta = 21^\circ$$

$$K_0 = 0.5$$

$W$  = FOUNDATION WEIGHT IN KIPS.

$W_S$  = WEIGHT OF SOIL ABOVE FOUNDATION BASE IN KIPS

$F_S$  = SHEARING RESISTANCE OF SOIL TO FOUNDATION WALLS  
 $= 0.011 H_2^2 + 0.005 H_1^2 + 0.021 H_1 H_2$  (IN KIPS PER FOOT OF FOUNDATION WALL)

$F_{SB}$  = SHEARING RESISTANCE OF SOIL =  $0.016 H_2^2 + 0.007 H_1^2 + 0.032 H_1 H_2$

$L$  PERIMETER LENGTH AROUND BASE OF FOUNDATION IN FEET

05951 Yarrow Bay Office Bldg \ 05951 UPLIFT RESISTANCE.cdr

Associated Earth Sciences, Inc.

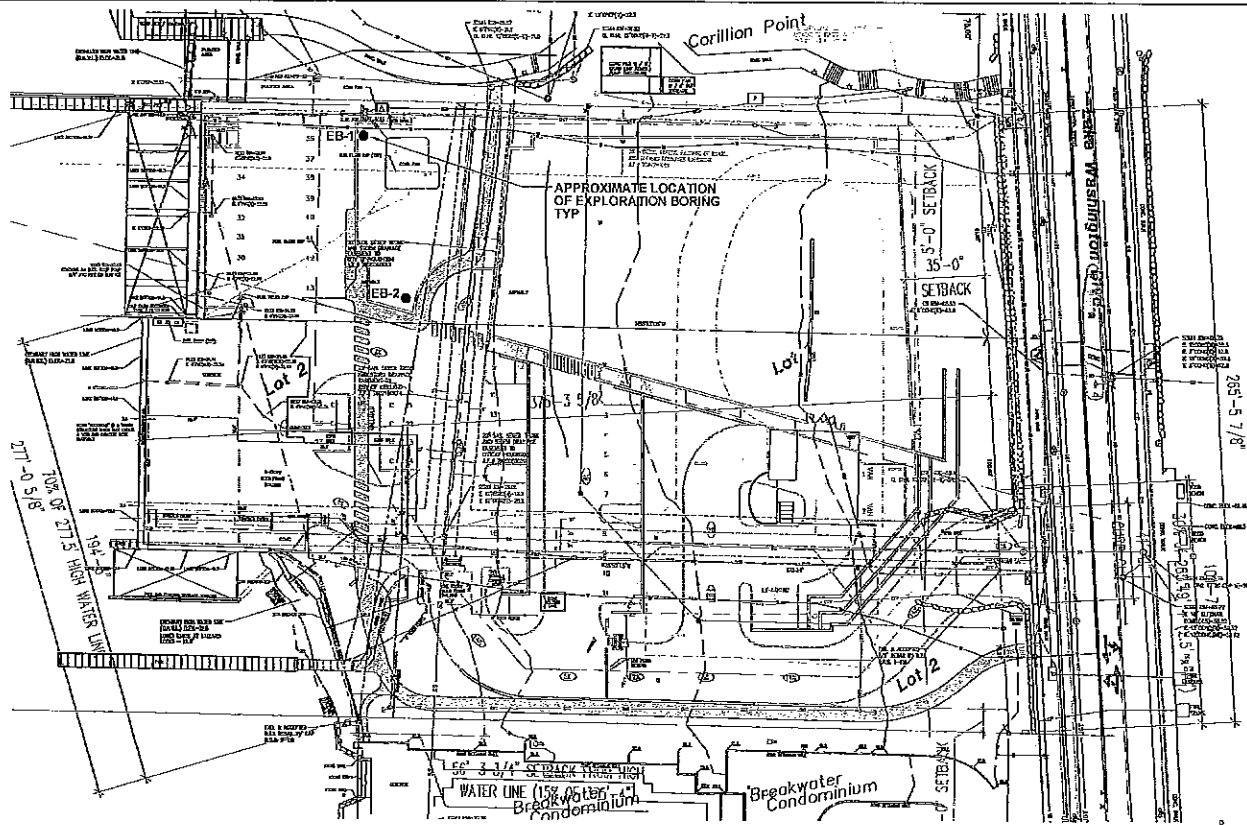


**UPLIFT RESISTANCE DIAGRAM**  
 YARROW BAY MARINA  
 KIRKLAND, WASHINGTON

FIGURE 4

DATE 4/06

PROJ. NO. KE05951A



Reference: PACE Engineering

Associated Earth Sciences, Inc.



SITE AND EXPLORATION PLAN  
 YARROW BAY MARINA  
 KIRKLAND, WASHINGTON

FIGURE 2

DATE 4/06

PROJECT NO. KE05951A

02011 Yarrow Bay Marina Ship Landed Site and Exploratory

# APPENDIX



# Exploration Log

Project Number  
KE05951A

Exploration Number  
EB-1

Sheet  
1 of 1

Project Name: Yarrow Bay  
 Location: Kirkland, WA  
 Driller/Equipment: EDJ  
 Hammer Weight/Drop: 140# / 30"

Ground Surface Elevation (ft): 27'  
 Datum: N/A  
 Date Start/Finish: 3/24/06, 3/24/06  
 Hole Diameter (in): \_\_\_\_\_

Depth (ft)	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests
						10	20	30	40	
0 - 5	S-1	[Symbol]	2" Asphalt Concrete Fill Loose, moist, brown, gravelly SAND, little silt.			7				
5 - 10	S-2	[Symbol]	Possession Drift Medium dense, wet, gray, fine SAND, few silt and gravel.			11				
10 - 15	S-3	[Symbol]	Very dense, wet to saturated, gray, fine to medium SAND, few gravel, trace silt.							68
15 - 20	S-4	[Symbol]								50/4"
20 - 25	S-5	[Symbol]								50/5"
25 - 30	S-6	[Symbol]								50/4"
30 - 35			Bottom of exploration boring at 28.33 feet No free ground water encountered during exploration Ground water measured at 10' 40 minutes after drilling							

**Sampler Type (ST):**

- [Symbol] 2" OD Split Spoon Sampler (SPT)      [Symbol] No Recovery      M - Moisture
- [Symbol] 3" OD Split Spoon Sampler (D & M)      [Symbol] Ring Sample      [Symbol] Water Level ( )
- [Symbol] Grab Sample      [Symbol] Shelby Tube Sample      [Symbol] Water Level at time of drilling (ATD)

Logged by: EG  
 Approved by: \_\_\_\_\_



# Exploration Log

Project Number  
KE05951A

Exploration Number  
EB-2

Sheet  
1 of 1

Project Name Yarrow Bay  
 Location Kirkland, WA  
 Driller/Equipment EDI  
 Hammer Weight/Drop 140# / 30"

Ground Surface Elevation (ft) 26'  
 Datum N/A  
 Date Start/Finish 3/24/06, 3/24/06  
 Hole Diameter (in) \_\_\_\_\_

Depth (ft)	S T	Samples	Graphic Symbol	DESCRIPTION	Well Completion	Water Level	Blows/Foot				Other Tests	
							10	20	30	40		
				<b>2" Asphalt Concrete</b>								
				<b>Fill</b>								
				Loose, moist, brown, gravelly SAND, few silt.								
		S-1		Loose, moist, gray, fine SAND, little gravel, trace silt.								
5						2 4 3	▲					
				<b>Possession Drift</b>								
				Medium dense, wet to saturated, fine SAND, few gravel, trace silt.								
		S-2				4 5 7	▲12					
10												
		S-3		Ground water at 12' ATD.		▼						
						10 11 12	▲23					
15												
		S-4		Very dense, moist to wet, silty SAND with gravel.		8 32 50/4"	▲50/4"					
20												
		S-5				15 50/6"	▲50/6"					
25												
		S-6				15 21 32	▲53					
30				Bottom of exploration boring at 29 feet Ground water at 12' ATD								
35												

**Sampler Type (ST):**

- 2" OD Split Spoon Sampler (SPT)      No Recovery     M - Moisture
- 3" OD Split Spoon Sampler (D & M)      Ring Sample     ▼ Water Level ( )
- Grab Sample      Shelby Tube Sample     ▼ Water Level at time of drilling (ATD)

Logged by: EG

Approved by:

# APPENDIX B

## EDR Report

# **EDR FieldCheck™ Report**

**with GeoCheck®**

**Yarrow Bay Marina  
5207 Lake Washington Blvd  
Kirkland, WA 98033**

**Inquiry Number: 1676898.2s**

**May 16, 2006**



**EDR® Environmental  
Data Resources Inc**

## **The Standard in Environmental Risk Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)



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Physical Setting Source Records Searched.....	A-27

**Thank you for your business.**  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

#### Important information about The EDR FieldCheck® System

*The FieldCheck® system enables EDR's customers to make certain online modifications to the maps and text contained in EDR Radius Map Reports, such as relocating/deleting plotted sites or plotting/deleting orphan sites that would otherwise appear with an EDR Radius Map Report, and/or adding sites that would otherwise not appear with an EDR Radius Map Report. Such modifications may be based on site visits, independent data verification and/or other actions taken or decisions made by EDR's customer. As a result, the maps and text contained in this Report may have been so modified. EDR has not taken any action to verify any such modifications, and this report and the findings set forth herein must be read in light of this fact. SOUND ENVIRONMENTAL STRATEGIES should be contacted for information concerning all such modifications.*

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## EXECUTIVE SUMMARY

At the request of SOUND ENVIRONMENTAL STRATEGIES, a search of the environmental records covering the area detailed herein was conducted by Environmental Data Resources, Inc. (EDR). This report was derived from the results of such search, which, as conducted by EDR, met the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances were per ASTM standard or custom distances requested by the user.

NOTE: ALL MAPS AND TEXT INCLUDED HEREIN MAY HAVE BEEN MODIFIED BY SOUND ENVIRONMENTAL STRATEGIES BASED ON SITE VISITS, INDEPENDENT DATA VERIFICATION AND/OR OTHER ACTIONS TAKEN OR DECISIONS MADE BY SOUND ENVIRONMENTAL STRATEGIES. EDR HAS NOT TAKEN ANY ACTION TO VERIFY ANY OF SUCH MODIFICATIONS, AND THIS REPORT AND THE FINDINGS SET FORTH HEREIN MUST BE READ IN LIGHT OF THIS FACT. SOUND ENVIRONMENTAL STRATEGIES SHOULD BE CONTACTED FOR INFORMATION CONCERNING ALL SUCH MODIFICATIONS.

### TARGET PROPERTY INFORMATION

#### ADDRESS

5207 LAKE WASHINGTON BLVD  
KIRKLAND, WA 98033

#### COORDINATES

Latitude (North): 47.653400 - 47° 39' 12.2"  
Longitude (West): 122.204500 - 122° 12' 16.2"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 559738.8  
UTM Y (Meters): 5277866.0  
Elevation: 70 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 47122-F2 KIRKLAND, WA  
Most Recent Revision: 1982

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No sites were found in an online review and analysis by SOUND ENVIRONMENTAL STRATEGIES of EDR's search of available ("reasonably ascertainable") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

### FEDERAL RECORDS

NPL..... National Priority List  
Proposed NPL..... Proposed National Priority List Sites  
Delisted NPL..... National Priority List Deletions  
NPL RECOVERY..... Federal Superfund Liens

## EXECUTIVE SUMMARY

<b>CERCLIS</b> .....	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>CERC-NFRAP</b> .....	CERCLIS No Further Remedial Action Planned
<b>CORRACTS</b> .....	Corrective Action Report
<b>RCRA-TSDF</b> .....	Resource Conservation and Recovery Act Information
<b>RCRA-LQG</b> .....	Resource Conservation and Recovery Act Information
<b>ERNS</b> .....	Emergency Response Notification System
<b>HMIRS</b> .....	Hazardous Materials Information Reporting System
<b>US ENG CONTROLS</b> .....	Engineering Controls Sites List
<b>US INST CONTROL</b> .....	Sites with Institutional Controls
<b>DOD</b> .....	Department of Defense Sites
<b>FUDS</b> .....	Formerly Used Defense Sites
<b>US BROWNFIELDS</b> .....	A Listing of Brownfields Sites
<b>CONSENT</b> .....	Superfund (CERCLA) Consent Decrees
<b>ROD</b> .....	Records Of Decision
<b>UMTRA</b> .....	Uranium Mill Tailings Sites
<b>ODL</b> .....	Open Dump Inventory
<b>TRIS</b> .....	Toxic Chemical Release Inventory System
<b>TSCA</b> .....	Toxic Substances Control Act
<b>FTTS</b> .....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
<b>SSTS</b> .....	Section 7 Tracking Systems
<b>ICIS</b> .....	Integrated Compliance Information System
<b>PADS</b> .....	PCB Activity Database System
<b>MLTS</b> .....	Material Licensing Tracking System
<b>MINES</b> .....	Mines Master Index File
<b>FINDS</b> .....	Facility Index System/Facility Registry System
<b>RAATS</b> .....	RCRA Administrative Action Tracking System

### STATE AND LOCAL RECORDS

<b>HSL</b> .....	Hazardous Sites List
<b>CSCSL NFA</b> .....	Confirmed & Contaminated Sites - No Further Action
<b>SWF/LF</b> .....	Solid Waste Facility Database
<b>SWTIRE</b> .....	Solid Waste Tire Facilities
<b>LUST</b> .....	Leaking Underground Storage Tanks Site List
<b>AST</b> .....	Aboveground Storage Tank Locations
<b>SPILLS</b> .....	Reported Spills
<b>INST CONTROL</b> .....	Institutional Control Site List
<b>VCP</b> .....	Voluntary Cleanup Program Sites
<b>DRYCLEANERS</b> .....	Drycleaner List
<b>CDL</b> .....	Clandestine Drug Lab Contaminated Site List
<b>EMI</b> .....	Washington Emissions Data System
<b>INACTIVE DRYCLEANERS</b> ..	Inactive Drycleaners

### TRIBAL RECORDS

<b>INDIAN RESERV</b> .....	Indian Reservations
<b>INDIAN LUST</b> .....	Leaking Underground Storage Tanks on Indian Land
<b>INDIAN UST</b> .....	Underground Storage Tanks on Indian Land

### EDR PROPRIETARY RECORDS

<b>Manufactured Gas Plants</b> ...	EDR Proprietary Manufactured Gas Plants
<b>EDR Historical Auto Stations</b>	EDR Proprietary Historic Gas Stations

## EXECUTIVE SUMMARY

EDR Historical Cleaners..... EDR Proprietary Historic Dry Cleaners

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### FEDERAL RECORDS

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act ( RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store , treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

An online review and analysis by SOUND ENVIRONMENTAL STRATEGIES of the RCRA-SQG list, as provided by EDR, and dated 02/24/2006 has revealed that there are 3 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>YARROW BAY YACHT SALES &amp; SVC</i></b>	<b><i>5207 LAKE WASHINGTON BL</i></b>	<b><i>0 - 1/8 NNE A1</i></b>	<b><i>6</i></b>	<b><i>6</i></b>
<b><i>SKINNER DEVELOPMENT CO</i></b>	<b><i>5305 LAKE WASHINGTON BL</i></b>	<b><i>1/8 - 1/4 N</i></b>	<b><i>4</i></b>	<b><i>9</i></b>
<b><i>KING CNTY SHERIFF</i></b>	<b><i>5165 CARILLON PT DR</i></b>	<b><i>1/8 - 1/4 NNW</i></b>	<b><i>5</i></b>	<b><i>9</i></b>

### STATE AND LOCAL RECORDS

**CSCSL:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Ecology's Confirmed & Suspected Contaminated Sites List.

An online review and analysis by SOUND ENVIRONMENTAL STRATEGIES of the CSCSL list, as provided by EDR, and dated 03/08/2006 has revealed that there are 4 CSCSL sites within approximately 1 mile of the target property.

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>HOUGHTON VILLAGE SHOPPING PLAZ</i>	<i>10600 10724 NE 68TH ST.</i>	<i>1/2 - 1 NNE</i>	<i>9</i>	<i>15</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>YARROW BAY YACHT SALES &amp; SVC</i>	<i>5207 LAKE WASHINGTON BL</i>	<i>0 - 1/8 NNE</i>	<i>A1</i>	<i>6</i>
<i>HOUGHTON BEACH PARK</i>	<i>NE 59TH ST / LAKE WAS</i>	<i>1/4 - 1/2N</i>	<i>6</i>	<i>10</i>
<i>WA DOT BELLEVUE</i>	<i>10833 NORTHUP WAY NE</i>	<i>1/2 - 1 SSE</i>	<i>8</i>	<i>13</i>

**UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Ecology's Statewide UST Site/Tank Report.

An online review and analysis by SOUND ENVIRONMENTAL STRATEGIES of the UST list, as provided by EDR, and dated 01/03/2006 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
YARROW BAY MARINA	5207 LK WASHINGTON BLVD	0 - 1/8 N	A3	8

**ICR:** These are remedial action reports Ecology has received from either the owner or operator of the site. These actions have been conducted without department oversight or approval and are not under an order or decree.

An online review and analysis by SOUND ENVIRONMENTAL STRATEGIES of the ICR list, as provided by EDR, and dated 12/01/2002 has revealed that there are 2 ICR sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
YELLOW BAY MARINA	5207 LAKE WASHINGTON BL	0 - 1/8 NNE	A2	8
HOUGHTON BEACH PARK	NE 59TH ST. AT LAKE WAS	1/4 - 1/2NNW	7	13

## MAP FINDINGS SUMMARY

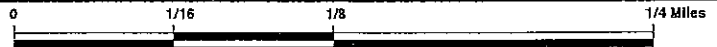
<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
<b><u>FEDERAL RECORDS</u></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL RECOVERY	TP		NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.		0.250	1	2	NR	NR	NR	3
ERNS	TP		NR	NR	NR	NR	NR	0
HMIRS	TP		NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
<b><u>STATE AND LOCAL RECORDS</u></b>								
CSCSL		1.000	1	0	1	2	NR	4
HSL		1.000	0	0	0	0	NR	0
CSCSL NFA		0.500	0	0	0	NR	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
SWTIRE		0.500	0	0	0	NR	NR	0
LUST		0.500	0	0	0	NR	NR	0
UST		0.250	1	0	NR	NR	NR	1
AST		0.250	0	0	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
INST CONTROL		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
ICR		0.500	1	0	1	NR	NR	2
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0

# DETAIL MAP - 1676898.2s



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- ⚡ Sensitive Receptors
- ☒ National Priority List Sites
- ☒ Landfill Sites
- ☒ Dept. Defense Sites

- ☒ Indian Reservations BIA
- N Oil & Gas pipelines
- ☒ 100-year flood zone
- ☒ 500-year flood zone
- ☒ National Wetland Inventory



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Yarrow Bay Marina  
 ADDRESS: 5207 Lake Washington Blvd  
 Kirkland WA 98033  
 LAT/LONG: 47.6534 / 122.2045

CLIENT: Sound Environmental Strategies  
 CONTACT: Erin K. Rothman  
 INQUIRY #: 1676898.2s  
 DATE: May 16, 2006





## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:  
There were no unmapped sites in this report.

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
WA Emissions		TP	NR	NR	NR	NR	NR	0
INACTIVE DRYCLEANERS		0.250	0	0	NR	NR	NR	0
<b><u>TRIBAL RECORDS</u></b>								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
<b><u>EDR PROPRIETARY RECORDS</u></b>								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A1**      **YARROW BAY YACHT SALES & SVC**  
**NNE**      **5207 LAKE WASHINGTON BLVD NE**  
**< 1/8**      **KIRKLAND, WA 98033**  
**17 ft.**

**RCRA-SQG**      **1000659720**  
**CSCSL**      **WAD988493961**  
**FINDS**  
**SPILLS**

**Site 1 of 3 in cluster A**

**Relative:**  
**Lower**

**RCRAInfo:**  
**Owner:**            YARROW BAY YACHT SALES SVCS  
                           (425)822-6066  
**EPA ID:**            WAD988493961  
**Contact:**          Not reported  
**Classification:**    Conditionally Exempt Small Quantity Generator  
**TSDF Activities:**    Not reported  
**Violation Status:**    No violations found

**Actual:**  
**67 ft.**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 PERMIT COMPLIANCE SYSTEM  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM  
 WASHINGTON-DEPARTMENT OF ECOLOGY FACILITY/SITE IDENTIFICATION SYSTEM

**SHWS:**

**Facility ID:**            2486  
**MTBE Code:**            Not reported  
**Prog plan code :**        3  
**UXO Code :**              Not reported  
**Lat/Long :**              47.601199999999999 / -122.74265200000001  
**Responsible Unit:**      Northwest Region  
**Ecology Site Status relative to the MTCA cleanup process:**  
                                   Independent Remedial Action  
**Independent Site Status - those sites undergoing an independent cleanup:**  
                                   Final Independent Remedial Action Report received  
**WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):**  
**Affected Media Status:**    R (Remediated) - Contaminants have been treated, removed, or contained to meet  
   cleanup levels established for the site. (This status determination may only be made  
   by Ecology  
**Affected Media :**            Soil  
**Arsenic Code:**            Not reported  
**Base/Neutral/Acid Organics:**            Not reported  
**Halogenated Organic Compounds:**        Not reported  
**EPA Priority Pollutants - Metals and Cyanide:**    Not reported  
**Metals - Other non-priority pollutant medals:**    Not reported  
**Polychlorinated biPhenyls (PCBs):**        Not reported  
**Pesticides:**              Not reported  
**Petroleum Products:**                      Treated, removed, or contained  
**Phenolic Compounds:**                      Not reported  
**Non-Halogenated Solvents:**                Not reported  
**Dioxin:**                    Not reported  
**Polynuclear Aromatic Hydrocarbons (PAH):**    Not reported  
**Reactive Wastes:**                          Not reported  
**Corrosive Wastes:**                          Not reported  
**Radioactive Wastes:**                        Not reported  
**Asbestos:**                 Not reported  
**Conventional Contaminants, Organic:**        Not reported  
**Conventional Contaminants, Inorganic:**      Not reported  
**Lat/Long :**                47° 36' 4.3200000000000003" / 122° 44' 33.539999999999999"  
**Media Id :**                 3665  
**Media Type Description :**                      Soil

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**YARROW BAY YACHT SALES & SVC (Continued)**

1000659720

Media Status Description : Remediated  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

Facility ID: 2486  
 MTBE Code: Not reported  
 Prog plan code : 3  
 UXO Code : Not reported  
 Lat/Long : 47.601199999999999 / -122.74265200000001

Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action

Independent Site Status - those sites undergoing an independent cleanup:  
 Final Independent Remedial Action Report received

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):

Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site

Affected Media : Sediments  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Not reported  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Suspected to be present  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Not reported  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47° 36' 4.3200000000000003" / 122° 44' 33.539999999999999"  
 Media Id : 3666  
 Media Type Description : Sediment  
 Media Status Description : Suspected  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

**WA SPILL:**

Facility ID: 505788  
 Material Desc : PETROLEUM - GASOLINE  
 Medium: SURFACE WATER-FRESH  
 Material Qty: Not reported  
 Material Units: Not reported  
 Date Received: 08/10/99  
 Contact Name: TEXACO  
 Company Name: FUEL STATION

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A2**      **YELLOW BAY MARINA**  
**NNE**      **5207 LAKE WASHINGTON BLVD. NE**  
**< 1/8**      **KIRKLAND, WA 98033**  
**17 ft.**

**ICR**      **S104488105**  
             **N/A**

**Site 2 of 3 in cluster A**

**Relative:**  
**Lower**

**WA ICR:**  
 Date Ecology Received Report: 07/24/1992  
 Contaminants Found at Site: Petroleum products  
 Media Contaminated: Soil  
 Cause of Contamination: Tank  
 Region: North Western  
 Type of Report Ecology Received: Interim cleanup report  
 Site Register Issue: 92-37  
 County Code: 17.00000  
 Contact: Not reported  
 Report Title: Not reported

**A3**      **YARROW BAY MARINA**  
**North**      **5207 LK WASHINGTON BLVD NE**  
**< 1/8**      **KIRKLAND, WA 98033**  
**32 ft.**

**UST**      **U001128140**  
             **N/A**

**Site 3 of 3 in cluster A**

**Relative:**  
**Lower**

**Actual:**  
**66 ft.**

**UST:**

Facility ID: 33911356  
 Site ID: 100973  
 Install Date: 1964-12-31 00:00:00  
 Capacity: 1,101 TO 2,000 GALLONS  
 Status: Removed  
 Tank Name: 2  
 Substance: UNLEADED GASOLINE  
 Compartment #: 1  
 Ecology Region: North Western

Facility ID: 33911356  
 Site ID: 100973  
 Install Date: 1964-12-31 00:00:00  
 Capacity: Not reported  
 Status: Removed  
 Tank Name: 1  
 Substance: Not reported  
 Compartment #: 1  
 Ecology Region: North Western

Facility ID: 33911356  
 Site ID: 100973  
 Install Date: 1992-04-01 00:00:00  
 Capacity: 5,000 TO 9,999 GALLONS  
 Status: Operational  
 Tank Name: 4  
 Substance: LEADED GASOLINE  
 Compartment #: 1  
 Ecology Region: North Western

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

YARROW BAY MARINA (Continued)

Database(s) EDR ID Number  
EPA ID Number

U001128140

Facility ID: 33911356  
Site ID: 100973  
Install Date: 1964-12-31 00:00:00  
Capacity: Not reported  
Status: Removed  
Tank Name: 3  
Substance: UNLEADED GASOLINE  
Compartment #: 1  
Ecology Region: North Western

Facility ID: 33911356  
Site ID: 100973  
Install Date: 1992-04-01 00:00:00  
Capacity: Not reported  
Status: Operational  
Tank Name: 5  
Substance: Not reported  
Compartment #: 1  
Ecology Region: North Western

4  
North  
1/8-1/4  
666 ft.

SKINNER DEVELOPMENT CO  
5305 LAKE WASHINGTON BLVD NE  
KIRKLAND, WA 98033

RCRA-SQG 1000317573  
FINDS WAD981772460

Relative:  
Lower

Actual:  
69 ft.

RCRAInfo:  
Owner: SKINNER DEVELOPMENT CO  
EPA ID: WAD981772460  
Contact: SUSAN PRENTKE  
(425) 822-1700

Classification: Small Quantity Generator  
TSD Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:  
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

5  
NNW  
1/8-1/4  
1307 ft.

KING CNTY SHERIFF  
5165 CARILLON PT DR  
KIRKLAND, WA 98033

RCRA-SQG 1000474058  
FINDS WAD988481420

Relative:  
Lower

Actual:  
33 ft.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**KING CNTY SHERIFF (Continued)**

1000474058

RCRAInfo:

Owner: WA ECY  
 EPA ID: WAD988481420  
 Contact: JOE HICKEY  
 (360) 867-7202

Classification: Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

6  
 North  
 1/4-1/2  
 2587 ft.

**HOUGHTON BEACH PARK**  
**NE 59TH ST / LAKE WASHINGTON BLVD NE**  
**KIRKLAND, WA 98033**

CSCSL S102258142  
 N/A

Relative:  
 Lower

SHWS:

Actual:  
 34 ft.

Facility ID: 2349  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.660319999999999 / -122.20634  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
 Final Independent Remedial Action Report received  
 WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has  
 been confirmed by laboratory analysis (or field determination in the case of  
 petroleum contamination)  
 Affected Media : Ground Water  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Suspected to be present  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Confirmed above MTCA cleanup levels  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Confirmed above MTCA cleanup levels  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47' 39' 37.149999999999999" / 122' 12' 22.82"  
 Media Id : 3293  
 Media Type Description : Groundwater  
 Media Status Description : Confirmed

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**HOUGHTON BEACH PARK (Continued)**

**S102258142**

Tibutyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

Facility ID: 2349  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.660319999999999 / -122.20634

Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action

Independent Site Status - those sites undergoing an independent cleanup:  
 Final Independent Remedial Action Report received

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has  
 been confirmed by laboratory analysis (or field determination in the case of  
 petroleum contamination)

Affected Media : Soil  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Suspected to be present  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Confirmed above MTCA cleanup levels  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Confirmed above MTCA cleanup levels  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47° 39' 37.149999999999999" / 122° 12' 22.82"  
 Media Id : 3294  
 Media Type Description : Soil  
 Media Status Description : Confirmed  
 Tibutyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

Facility ID: 2349  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.660319999999999 / -122.20634  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
 Final Independent Remedial Action Report received



Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**HOUGHTON BEACH PARK (Continued)**

**S102258142**

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site

Affected Media : Surface Water  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Suspected to be present  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Suspected to be present  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Suspected to be present  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47' 39' 37.14999999999999" / 122' 12' 22.82"  
 Media Id : 3295  
 Media Type Description : Surface Water  
 Media Status Description : Suspected  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

Facility ID: 2349  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.660319999999999 / -122.20634  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
 Final Independent Remedial Action Report received

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site

Affected Media : Sediments  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Suspected to be present  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Suspected to be present  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Suspected to be present

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**HOUGHTON BEACH PARK (Continued)**

S102258142

Dioxin:	Not reported
Polynuclear Aromatic Hydrocarbons (PAH):	Not reported
Reactive Wastes:	Not reported
Corrosive Wastes:	Not reported
Radioactive Wastes:	Not reported
Asbestos:	Not reported
Conventional Contaminants, Organic:	Not reported
Conventional Contaminants, Inorganic:	Not reported
Lat/Long :	47° 39' 37.149999999999999" / 122° 12' 22.82"
Media Id :	3296
Media Type Description :	Sediment
Media Status Description :	Suspected
Tibutyl Tin Contaminant Group :	Not reported
Bioassay/benthic Failures Contam group :	Not reported
Wood Debris Contaminant Group :	Not reported
Other Deleterious Substance Group :	Not reported

7  
 NNW  
 1/4-1/2  
 2598 ft.

**HOUGHTON BEACH PARK  
 NE 59TH ST. AT LAKE WASHINGTON BLVD.  
 KIRKLAND, WA 98033**

ICR S103507796  
 N/A

Relative:  
 Lower

Actual:  
 17 ft.

WA ICR:

Date Ecology Received Report:	07/10/1991
Contaminants Found at Site:	Petroleum products
Media Contaminated:	Soil
Cause of Contamination:	Handling practices, Spill
Region:	North Western
Type of Report Ecology Received:	Interim cleanup report
Site Register Issue:	92-05
County Code:	17.00000
Contact:	Not reported
Report Title:	Not reported

Date Ecology Received Report:	01/25/1993
Contaminants Found at Site:	Total petroleum hydrocarbons
Media Contaminated:	Groundwater, Soil
Cause of Contamination:	Not reported
Region:	North Western
Type of Report Ecology Received:	Final cleanup report
Site Register Issue:	92-51
County Code:	17.00000
Contact:	Not reported
Report Title:	Not reported

8  
 SSE  
 1/2-1  
 4987 ft.

**WA DOT BELLEVUE  
 10833 NORTHUP WAY NE  
 BELLEVUE, WA 98004**

RCRA-SQG 1000390940  
 CSCSL WAD981767445  
 FINDS

Relative:  
 Lower

Actual:  
 57 ft.

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**WA DOT BELLEVUE (Continued)**

1000390940

**RCRAInfo:**

Owner: WA DOT FACILITIES HAZMAT  
 (206)768-5740  
 EPA ID: WAD981767445  
 Contact: Not reported  
 Classification: Small Quantity Generator  
 TSD Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM  
 WASHINGTON-DEPARTMENT OF ECOLOGY FACILITY/SITE IDENTIFICATION SYSTEM

**SHWS:**

Facility ID: 65135545  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.641240000000003 / -122.19544999999999  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
 Independent Site Assessment of Interim Remedial Action Report received  
 WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has  
 been confirmed by laboratory analysis (or field determination in the case of  
 petroleum contamination)  
 Affected Media : Ground Water  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Not reported  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant metals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Confirmed above MTCA cleanup levels  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Not reported  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47' 38" 28.460000000000001" / 122' 11" 43.619999999999997"  
 Media Id : 6234  
 Media Type Description : Groundwater  
 Media Status Description : Confirmed  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**WA DOT BELLEVUE (Continued)**

1000390940

Other Deleterious Substance Group : Not reported

Facility ID: 65135545  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.64124000000003 / -122.19544999999999  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
     Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
     Independent Site Assessment of Interim Remedial Action Report received  
 WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has  
     been confirmed by laboratory analysis (or field determination in the case of  
     petroleum contamination)

Affected Media : Soil  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Not reported  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Confirmed above MTCA cleanup levels  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Not reported  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47° 38' 28.46000000000001" / 122° 11' 43.61999999999997"  
 Media Id : 6235  
 Media Type Description : Soil  
 Media Status Description : Confirmed  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

9 HOUGHTON VILLAGE SHOPPING PLAZA  
 NNE 10600 10724 NE 68TH ST.  
 1/2-1 KIRKLAND, WA 98033  
 5159 ft.

CSCSL S103822504  
 ICR N/A

Relative: SHWS:  
 Higher Facility ID: 26574952  
 MTBE Code: Not reported  
 Actual: Prog plan code : Not reported  
 185 ft. UXO Code : Not reported  
 Lat/Long : 47.666916000000001 / -122.197444  
 Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
     Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
     Independent Site Assessment of Interim Remedial Action Report received

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**HOUGHTON VILLAGE SHOPPING PLAZA (Continued)**

**S103822504**

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: S (Suspected) - Due to preliminary investigations or the nature of business operations or manufacturing processes, certain contaminants are suspected to be present at the site

Affected Media : Soil  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Not reported  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Suspected to be present  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Suspected to be present  
 Dioxin: Not reported  
 Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
 Reactive Wastes: Not reported  
 Corrosive Wastes: Not reported  
 Radioactive Wastes: Not reported  
 Asbestos: Not reported  
 Conventional Contaminants, Organic: Not reported  
 Conventional Contaminants, Inorganic: Not reported  
 Lat/Long : 47° 40' 0.9000000000000002" / 122° 11' 50.800000000000004"  
 Media Id : 5768  
 Media Type Description : Soil  
 Media Status Description : Suspected  
 Tributyl Tin Contaminant Group : Not reported  
 Bioassay/benthic Failures Contam group : Not reported  
 Wood Debris Contaminant Group : Not reported  
 Other Deleterious Substance Group : Not reported

Facility ID: 26574952  
 MTBE Code: Not reported  
 Prog plan code : Not reported  
 UXO Code : Not reported  
 Lat/Long : 47.666916000000001 / -122.197444

Responsible Unit: Northwest Region  
 Ecology Site Status relative to the MTCA cleanup process:  
 Independent Remedial Action  
 Independent Site Status - those sites undergoing an independent cleanup:  
 Independent Site Assessment of Interim Remedial Action Report received

WARM Bin Number indicates the outcome of the Washington Ranking Model (WARM):  
 Affected Media Status: C (Confirmed) - The presence of hazardous substances above MTCA cleanup levels has been confirmed by laboratory analysis (or field determination in the case of petroleum contamination)

Affected Media : Ground Water  
 Arsenic Code: Not reported  
 Base/Neutral/Acid Organics: Not reported  
 Halogenated Organic Compounds: Not reported  
 EPA Priority Pollutants - Metals and Cyanide: Not reported  
 Metals - Other non-priority pollutant medals: Not reported  
 Polychlorinated biPhenyls (PCBs): Not reported  
 Pesticides: Not reported  
 Petroleum Products: Confirmed above MTCA cleanup levels  
 Phenolic Compounds: Not reported  
 Non-Halogenated Solvents: Confirmed above MTCA cleanup levels

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

HOUGHTON VILLAGE SHOPPING PLAZA (Continued)

S103822504

Dioxin: Not reported  
Polynuclear Aromatic Hydrocarbons (PAH): Not reported  
Reactive Wastes: Not reported  
Corrosive Wastes: Not reported  
Radioactive Wastes: Not reported  
Asbestos: Not reported  
Conventional Contaminants, Organic: Not reported  
Conventional Contaminants, Inorganic: Not reported  
Lat/Long : 47° 40' 0.9000000000000002" / 122° 11' 50.800000000000004"  
Media Id : 5692  
Media Type Description : Groundwater  
Media Status Description : Confirmed  
Tibutyl Tin Contaminant Group : Not reported  
Bioassay/benthic Failures Contam group : Not reported  
Wood Debris Contaminant Group : Not reported  
Other Deleterious Substance Group : Not reported

WA ICR:

Date Ecology Received Report: 02/17/1998  
Contaminants Found at Site: Petroleum products  
Solvents  
Media Contaminated: Groundwater, Soil  
Cause of Contamination: Not reported  
Region: North Western  
Type of Report Ecology Received: Interim cleanup report  
Site Register Issue: 98-04  
County Code: 17.00000  
Contact: Not reported  
Report Title: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
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NO SITES FOUND

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## FEDERAL RECORDS

### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 02/24/2006	Source: EPA
Date Data Arrived at EDR: 03/01/2006	Telephone: N/A
Date Made Active in Reports: 03/31/2006	Last EDR Contact: 05/05/2006
Number of Days to Update: 30	Next Scheduled EDR Contact: 07/31/2006
	Data Release Frequency: Quarterly

### **NPL Site Boundaries**

#### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 8  
Telephone: 303-312-6774

EPA Region 4  
Telephone 404-562-8033

### **Proposed NPL: Proposed National Priority List Sites**

Date of Government Version: 02/24/2006	Source: EPA
Date Data Arrived at EDR: 03/01/2006	Telephone: N/A
Date Made Active in Reports: 03/31/2006	Last EDR Contact: 05/05/2006
Number of Days to Update: 30	Next Scheduled EDR Contact: 07/31/2006
	Data Release Frequency: Quarterly

### **DELISTED NPL: National Priority List Deletions**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 02/24/2006	Source: EPA
Date Data Arrived at EDR: 03/01/2006	Telephone: N/A
Date Made Active in Reports: 03/31/2006	Last EDR Contact: 05/05/2006
Number of Days to Update: 30	Next Scheduled EDR Contact: 07/31/2006
	Data Release Frequency: Quarterly

### **NPL RECOVERY: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 03/06/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/22/2006
	Data Release Frequency: No Update Planned



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System**

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/01/2006	Source: EPA
Date Data Arrived at EDR: 03/21/2006	Telephone: 703-413-0223
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/21/2006
Number of Days to Update: 23	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Quarterly

### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/01/2006	Source: EPA
Date Data Arrived at EDR: 03/21/2006	Telephone: 703-413-0223
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/21/2006
Number of Days to Update: 23	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Quarterly

### **CORRACTS: Corrective Action Report**

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/2006	Source: EPA
Date Data Arrived at EDR: 03/17/2006	Telephone: 800-424-9346
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/06/2006
Number of Days to Update: 27	Next Scheduled EDR Contact: 06/05/2006
	Data Release Frequency: Quarterly

### **RCRA: Resource Conservation and Recovery Act Information**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/21/2006	Source: EPA
Date Data Arrived at EDR: 03/01/2006	Telephone: 800-424-9346
Date Made Active in Reports: 03/31/2006	Last EDR Contact: 04/27/2006
Number of Days to Update: 30	Next Scheduled EDR Contact: 06/26/2006
	Data Release Frequency: Quarterly

### **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2005	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/12/2006	Telephone: 202-260-2342
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 04/26/2006
Number of Days to Update: 40	Next Scheduled EDR Contact: 07/24/2006
	Data Release Frequency: Annually

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **HMIRS: Hazardous Materials Information Reporting System**

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2005	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/16/2006	Telephone: 202-366-4555
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 04/14/2006
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/17/2006
	Data Release Frequency: Annually

### **US ENG CONTROLS: Engineering Controls Sites List**

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 08/02/2005	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/12/2005	Telephone: 703-603-8905
Date Made Active in Reports: 10/06/2005	Last EDR Contact: 03/03/2006
Number of Days to Update: 55	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Varies

### **US INST CONTROL: Sites with Institutional Controls**

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/2005	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/11/2005	Telephone: 703-603-8905
Date Made Active in Reports: 04/06/2005	Last EDR Contact: 03/03/2006
Number of Days to Update: 54	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Varies

### **DOD: Department of Defense Sites**

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2004	Source: USGS
Date Data Arrived at EDR: 02/08/2005	Telephone: 703-692-8801
Date Made Active in Reports: 08/04/2005	Last EDR Contact: 05/12/2006
Number of Days to Update: 177	Next Scheduled EDR Contact: 08/07/2006
	Data Release Frequency: Semi-Annually

### **FUDS: Formerly Used Defense Sites**

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/05/2005	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 01/19/2006	Telephone: 202-528-4285
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 04/03/2006
Number of Days to Update: 33	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Varies

### **US BROWNFIELDS: A Listing of Brownfields Sites**

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 11/29/2005	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/05/2005	Telephone: 202-566-2777
Date Made Active in Reports: 01/30/2006	Last EDR Contact: 03/13/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 06/12/2006
	Data Release Frequency: Semi-Annually

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/2004	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 02/15/2005	Telephone: Varies
Date Made Active in Reports: 04/25/2005	Last EDR Contact: 03/13/2006
Number of Days to Update: 69	Next Scheduled EDR Contact: 07/24/2006
	Data Release Frequency: Varies

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/07/2005	Source: EPA
Date Data Arrived at EDR: 01/06/2006	Telephone: 703-416-0223
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 04/05/2006
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Annually

### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 11/04/2005	Source: Department of Energy
Date Data Arrived at EDR: 11/28/2005	Telephone: 505-845-0011
Date Made Active in Reports: 01/30/2006	Last EDR Contact: 03/20/2006
Number of Days to Update: 63	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Varies

### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**TRIS: Toxic Chemical Release Inventory System**

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2003	Source: EPA
Date Data Arrived at EDR: 07/13/2005	Telephone: 202-566-0250
Date Made Active in Reports: 08/17/2005	Last EDR Contact: 03/21/2006
Number of Days to Update: 35	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Annually

**TSCA: Toxic Substances Control Act**

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/27/2004	Telephone: 202-260-5521
Date Made Active in Reports: 05/21/2004	Last EDR Contact: 04/12/2006
Number of Days to Update: 24	Next Scheduled EDR Contact: 07/17/2006
	Data Release Frequency: Every 4 Years

**FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/17/2006	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 01/24/2006	Telephone: 202-566-1667
Date Made Active in Reports: 02/27/2006	Last EDR Contact: 03/20/2006
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Quarterly

**FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)**

Date of Government Version: 01/17/2006	Source: EPA
Date Data Arrived at EDR: 01/24/2006	Telephone: 202-566-1667
Date Made Active in Reports: 02/27/2006	Last EDR Contact: 03/20/2006
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/19/2006
	Data Release Frequency: Quarterly

**SSTS: Section 7 Tracking Systems**

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2003	Source: EPA
Date Data Arrived at EDR: 01/03/2005	Telephone: 202-564-4203
Date Made Active in Reports: 01/25/2005	Last EDR Contact: 03/06/2006
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/17/2006
	Data Release Frequency: Annually

**ICIS: Integrated Compliance Information System**

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/13/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/21/2006	Telephone: 202-564-5088
Date Made Active in Reports: 05/11/2006	Last EDR Contact: 04/11/2006
Number of Days to Update: 20	Next Scheduled EDR Contact: 07/17/2006
	Data Release Frequency: Quarterly

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **PADS: PCB Activity Database System**

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/27/2005	Source: EPA
Date Data Arrived at EDR: 02/08/2006	Telephone: 202-566-0500
Date Made Active in Reports: 02/27/2006	Last EDR Contact: 05/08/2006
Number of Days to Update: 19	Next Scheduled EDR Contact: 08/07/2006
	Data Release Frequency: Annually

### **MLTS: Material Licensing Tracking System**

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 02/10/2006	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 02/16/2006	Telephone: 301-415-7169
Date Made Active in Reports: 03/31/2006	Last EDR Contact: 04/03/2006
Number of Days to Update: 43	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Quarterly

### **MINES: Mines Master Index File**

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/08/2005	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 12/27/2005	Telephone: 303-231-5959
Date Made Active in Reports: 01/30/2006	Last EDR Contact: 03/29/2006
Number of Days to Update: 34	Next Scheduled EDR Contact: 06/26/2006
	Data Release Frequency: Semi-Annually

### **FINDS: Facility Index System/Facility Registry System**

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/09/2006	Source: EPA
Date Data Arrived at EDR: 01/16/2006	Telephone: N/A
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 04/03/2006
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Quarterly

### **RAATS: RCRA Administrative Action Tracking System**

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 03/06/2006
Number of Days to Update: 35	Next Scheduled EDR Contact: 06/05/2006
	Data Release Frequency: No Update Planned

### **BRS: Biennial Reporting System**

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2003  
Date Data Arrived at EDR: 06/17/2005  
Date Made Active in Reports: 08/04/2005  
Number of Days to Update: 48

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 03/17/2006  
Next Scheduled EDR Contact: 06/12/2006  
Data Release Frequency: Biennially

## STATE AND LOCAL RECORDS

### **CSCSL: Confirmed & Suspected Contaminated Sites List**

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 03/08/2006  
Date Data Arrived at EDR: 03/08/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 36

Source: Department of Ecology  
Telephone: 360-407-7200  
Last EDR Contact: 03/08/2006  
Next Scheduled EDR Contact: 05/15/2006  
Data Release Frequency: Semi-Annually

### **HSL: Hazardous Sites List**

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 02/22/2006  
Date Data Arrived at EDR: 03/27/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 17

Source: Department of Ecology  
Telephone: 360-407-7200  
Last EDR Contact: 03/07/2006  
Next Scheduled EDR Contact: 06/05/2006  
Data Release Frequency: Semi-Annually

### **CSCSL NFA: Confirmed & Contaminated Sites - No Further Action**

The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead, a No Further Action code is entered based upon the type of NFA determination the site received.

Date of Government Version: 02/09/2006  
Date Data Arrived at EDR: 02/14/2006  
Date Made Active in Reports: 03/15/2006  
Number of Days to Update: 29

Source: Department of Ecology  
Telephone: 360-407-7170  
Last EDR Contact: 02/14/2006  
Next Scheduled EDR Contact: 05/15/2006  
Data Release Frequency: Semi-Annually

### **SWF/LF: Solid Waste Facility Database**

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 10/01/2004  
Date Data Arrived at EDR: 01/06/2005  
Date Made Active in Reports: 02/02/2005  
Number of Days to Update: 27

Source: Department of Ecology  
Telephone: 360-407-6132  
Last EDR Contact: 04/05/2006  
Next Scheduled EDR Contact: 07/03/2006  
Data Release Frequency: Annually

### **SWTIRE: Solid Waste Tire Facilities**

This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005  
Date Data Arrived at EDR: 03/16/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 28

Source: Department of Ecology  
Telephone: N/A  
Last EDR Contact: 04/05/2006  
Next Scheduled EDR Contact: 07/03/2006  
Data Release Frequency: Varies

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **LUST: Leaking Underground Storage Tanks Site List**

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/08/2006	Source: Department of Ecology
Date Data Arrived at EDR: 03/16/2006	Telephone: 360-407-7200
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/16/2006
Number of Days to Update: 28	Next Scheduled EDR Contact: 06/12/2006
	Data Release Frequency: Quarterly

### **UST: Underground Storage Tank Database**

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 01/03/2006	Source: Department of Ecology
Date Data Arrived at EDR: 01/10/2006	Telephone: 360-407-7170
Date Made Active in Reports: 01/31/2006	Last EDR Contact: 04/28/2006
Number of Days to Update: 21	Next Scheduled EDR Contact: 06/12/2006
	Data Release Frequency: Quarterly

### **AST: Aboveground Storage Tank Locations**

A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 12/13/2005	Source: Department of Ecology
Date Data Arrived at EDR: 12/14/2005	Telephone: 360-407-7562
Date Made Active in Reports: 01/16/2006	Last EDR Contact: 02/27/2006
Number of Days to Update: 33	Next Scheduled EDR Contact: 05/29/2006
	Data Release Frequency: Varies

### **SPILLS: Reported Spills**

Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 12/31/2005	Source: Department of Ecology
Date Data Arrived at EDR: 01/11/2006	Telephone: 360-407-7450
Date Made Active in Reports: 02/01/2006	Last EDR Contact: 04/12/2006
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Semi-Annually

### **INST CONTROL: Institutional Control Site List**

Sites that have institutional controls.

Date of Government Version: 03/07/2006	Source: Department of Ecology
Date Data Arrived at EDR: 03/08/2006	Telephone: 360-407-7170
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/06/2006
Number of Days to Update: 36	Next Scheduled EDR Contact: 06/05/2006
	Data Release Frequency: Varies

### **VCP: Voluntary Cleanup Program Sites**

Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 03/08/2006	Source: Department of Ecology
Date Data Arrived at EDR: 03/08/2006	Telephone: 360-407-7200
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 03/08/2006
Number of Days to Update: 36	Next Scheduled EDR Contact: 05/15/2006
	Data Release Frequency: Varies

### **ICR: Independent Cleanup Reports**

These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2002  
Date Data Arrived at EDR: 01/03/2003  
Date Made Active in Reports: 01/22/2003  
Number of Days to Update: 19

Source: Department of Ecology  
Telephone: 360-407-7200  
Last EDR Contact: 05/15/2006  
Next Scheduled EDR Contact: 08/14/2006  
Data Release Frequency: No Update Planned

## **DRYCLEANERS:** Drycleaner List

A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215 and 7216) as hazardous waste generators.

Date of Government Version: 01/12/2006  
Date Data Arrived at EDR: 03/23/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 21

Source: Department of Ecology  
Telephone: 360-407-6732  
Last EDR Contact: 05/15/2006  
Next Scheduled EDR Contact: 08/14/2006  
Data Release Frequency: Varies

## **CDL:** Clandestine Drug Lab Contaminated Site List

Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 02/16/2006  
Date Data Arrived at EDR: 03/07/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 37

Source: Department of Health  
Telephone: 360-236-3380  
Last EDR Contact: 03/07/2006  
Next Scheduled EDR Contact: 06/05/2006  
Data Release Frequency: Varies

## **EMI:** Washington Emissions Data System

Date of Government Version: 12/31/2004  
Date Data Arrived at EDR: 03/16/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 28

Source: Department of Ecology  
Telephone: 360-407-6040  
Last EDR Contact: 04/11/2006  
Next Scheduled EDR Contact: 07/17/2006  
Data Release Frequency: Annually

## **INACTIVE DRYCLEANERS:** Inactive Drycleaners

A listing of inactive drycleaner facility locations.

Date of Government Version: 01/12/2006  
Date Data Arrived at EDR: 03/23/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 21

Source: Department of Ecology  
Telephone: 360-407-6732  
Last EDR Contact: 05/15/2006  
Next Scheduled EDR Contact: 08/14/2006  
Data Release Frequency: Annually

## **TRIBAL RECORDS**

### **INDIAN RESERV:** Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2004  
Date Data Arrived at EDR: 02/08/2005  
Date Made Active in Reports: 08/04/2005  
Number of Days to Update: 177

Source: USGS  
Telephone: 202-208-3710  
Last EDR Contact: 05/12/2006  
Next Scheduled EDR Contact: 08/07/2006  
Data Release Frequency: Semi-Annually

### **INDIAN LUST:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 03/14/2006  
Date Data Arrived at EDR: 03/21/2006  
Date Made Active in Reports: 04/13/2006  
Number of Days to Update: 23

Source: EPA Region 10  
Telephone: 206-553-2857  
Last EDR Contact: 02/20/2006  
Next Scheduled EDR Contact: 05/22/2006  
Data Release Frequency: Varies



## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### INDIAN UST: Underground Storage Tanks on Indian Land

Date of Government Version: 04/05/2006	Source: EPA Region 10
Date Data Arrived at EDR: 04/05/2006	Telephone: 206-553-2857
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 04/05/2006
Number of Days to Update: 8	Next Scheduled EDR Contact: 05/22/2006
	Data Release Frequency: Varies

### EDR PROPRIETARY RECORDS

#### Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

#### EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

### COUNTY RECORDS

#### KING COUNTY:

##### Abandoned Landfill Study in King County

The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/30/1985  
Date Data Arrived at EDR: 11/07/1994  
Date Made Active in Reports: N/A  
Number of Days to Update: 0

Source: Seattle-King County Department of Public Health  
Telephone: 206-296-4785  
Last EDR Contact: 10/21/1994  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## SEATTLE COUNTY:

### Abandoned Landfill Study in the City of Seattle

The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984  
Date Data Arrived at EDR: 11/07/1994  
Date Made Active in Reports: N/A  
Number of Days to Update: 0

Source: Seattle - King County Department of Public Health  
Telephone: 206-296-4785  
Last EDR Contact: 10/21/1994  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## SEATTLE/KING COUNTY:

### Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project

This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986  
Date Data Arrived at EDR: 08/18/1995  
Date Made Active in Reports: 09/20/1995  
Number of Days to Update: 33

Source: Department of Public Health  
Telephone: 206-296-4785  
Last EDR Contact: 08/14/1995  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## SNOHOMISH COUNTY:

### Solid Waste Sites of Record at Snohomish Health District

Date of Government Version: 02/28/2005  
Date Data Arrived at EDR: 04/28/2005  
Date Made Active in Reports: 05/26/2005  
Number of Days to Update: 28

Source: Snohomish Health District  
Telephone: 206-339-5250  
Last EDR Contact: 04/12/2006  
Next Scheduled EDR Contact: 07/17/2006  
Data Release Frequency: Semi-Annually

## TACOMA/PIERCE COUNTY:

### Closed Landfill Survey

Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002  
Date Data Arrived at EDR: 03/24/2003  
Date Made Active in Reports: 05/14/2003  
Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department  
Telephone: 206-591-6500  
Last EDR Contact: 03/19/2003  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

#### **CT MANIFEST: Hazardous Waste Manifest Data**

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004	Source: Department of Environmental Protection
Date Data Arrived at EDR: 02/17/2006	Telephone: 860-424-3375
Date Made Active in Reports: 04/07/2006	Last EDR Contact: 03/13/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 06/12/2006
	Data Release Frequency: Annually

#### **NY MANIFEST: Facility and Manifest Data**

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2005	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 03/01/2006	Telephone: 518-402-8851
Date Made Active in Reports: 04/20/2006	Last EDR Contact: 03/01/2006
Number of Days to Update: 50	Next Scheduled EDR Contact: 05/29/2006
	Data Release Frequency: Annually

#### **WI MANIFEST: Manifest Information**

Hazardous waste manifest information.

Date of Government Version: 12/31/2005	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/17/2006	Telephone: N/A
Date Made Active in Reports: 05/02/2006	Last EDR Contact: 03/17/2006
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/10/2006
	Data Release Frequency: Annually

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

#### **Electric Power Transmission Line Data**

Source: PennWell Corporation  
Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### **AHA Hospitals:**

Source: American Hospital Association, Inc.  
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

#### **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services  
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

#### **Nursing Homes**

Source: National Institutes of Health  
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

### **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

### **Daycare Centers: Daycare Center Listing**

Source: Department of Social & Health Services

Telephone: 253-383-1735

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

### **STREET AND ADDRESS INFORMATION**

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## GEOCHECK® - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

YARROW BAY MARINA  
5207 LAKE WASHINGTON BLVD  
KIRKLAND, WA 98033

### TARGET PROPERTY COORDINATES

Latitude (North):	47.65340 - 47° 39' 12.2"
Longitude (West):	122.2045 - 122° 12' 16.2"
Universal Transverse Mercator:	Zone 10
UTM X (Meters):	559738.8
UTM Y (Meters):	5277866.0
Elevation:	70 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	47122-F2 KIRKLAND, WA
Most Recent Revision:	1982

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

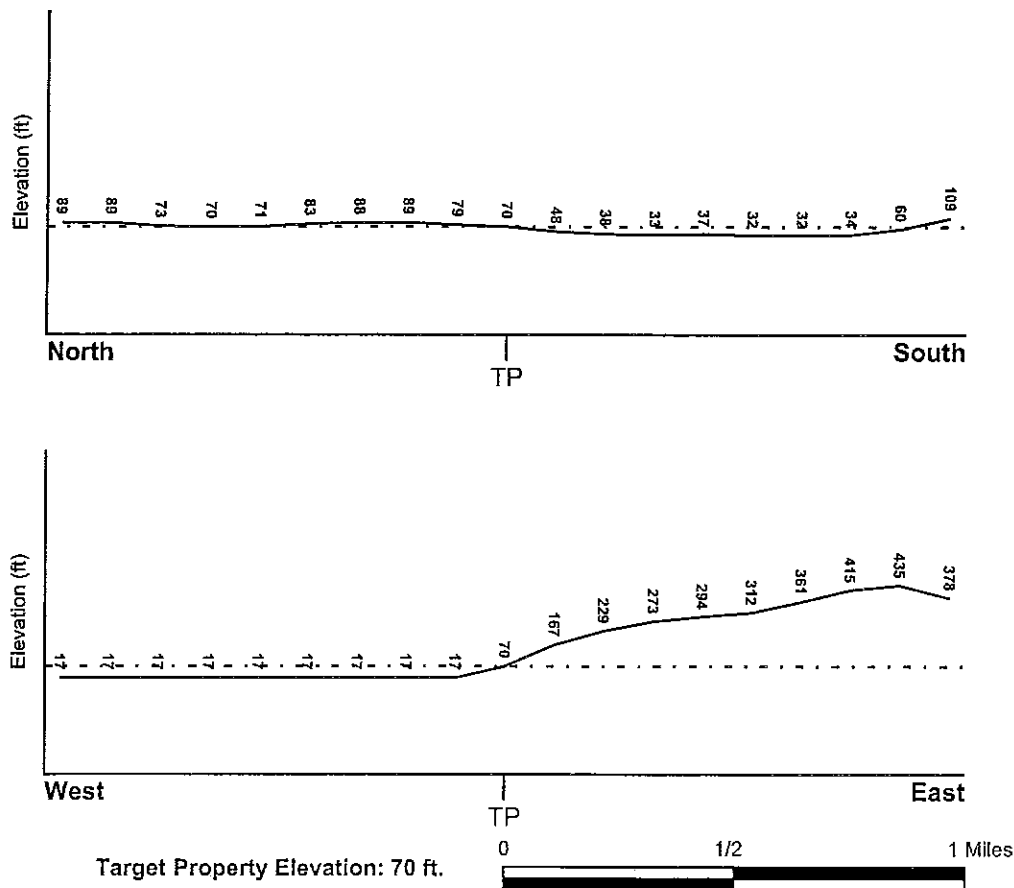
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

### FEMA FLOOD ZONE

<u>Target Property County</u> KING, WA	FEMA Flood <u>Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	53033C0365F
Additional Panels in search area:	53033C0370F 53033C0368F

### NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> KIRKLAND	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map
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### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### *Site-Specific Hydrogeological Data\*:*

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile SSE
Site Name:	CHEM SECURITIES SYSTEM INC
Site EPA ID Number:	WAD028035137
Groundwater Flow Direction:	NOT AVAILABLE
Inferred Depth to Water:	25 feet
Hydraulic Connection:	A relatively impermeable till overlies the ground water present at a depth of 25 feet.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

### AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
15	1/2 - 1 Mile SSE	E

\* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
26	1/2 - 1 Mile North	NNW

For additional site information, refer to Physical Setting Source Map Findings.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### ROCK STRATIGRAPHIC UNIT

Era: Cenozoic  
System: Quaternary  
Series: Quaternary  
Code: Q (decoded above as Era, System & Series)

### GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: ALDERWOOD  
Soil Surface Texture: gravelly - sandy loam  
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.  
Soil Drainage Class: Moderately well drained. Soils have a layer of low hydraulic conductivity, wet state high in the profile. Depth to water table is 3 to 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	gravelly - sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 6.00 Min: 2.00	Max: 6.50 Min: 5.10
2	7 inches	35 inches	very gravelly - loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 6.00 Min: 2.00	Max: 6.50 Min: 5.10
3	35 inches	39 inches	cemented	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: silt loam  
very gravelly - sandy loam

Surficial Soil Types: silt loam  
very gravelly - sandy loam

Shallow Soil Types: silt loam

Deeper Soil Types: very gravelly - coarse sand  
stratified  
very gravelly - sand  
very gravelly - loamy sand

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A8	USGS3278581	1/4 - 1/2 Mile ENE
9	USGS3278650	1/4 - 1/2 Mile North
B10	USGS3278641	1/4 - 1/2 Mile NNE
B11	USGS3278649	1/4 - 1/2 Mile NNE
B12	USGS3278657	1/2 - 1 Mile NNE
14	USGS3278665	1/2 - 1 Mile NNE
16	USGS3278346	1/2 - 1 Mile SSE
17	USGS3278522	1/2 - 1 Mile East
18	USGS3278703	1/2 - 1 Mile NNE
C19	USGS3278640	1/2 - 1 Mile NE
C20	USGS3278648	1/2 - 1 Mile NE
D21	USGS3278595	1/2 - 1 Mile ENE
22	USGS3278656	1/2 - 1 Mile NE
D23	USGS3278597	1/2 - 1 Mile ENE
24	USGS3278294	1/2 - 1 Mile SSE
25	USGS3278418	1/2 - 1 Mile ESE
27	USGS3278655	1/2 - 1 Mile ENE
28	USGS3278506	1/2 - 1 Mile East

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

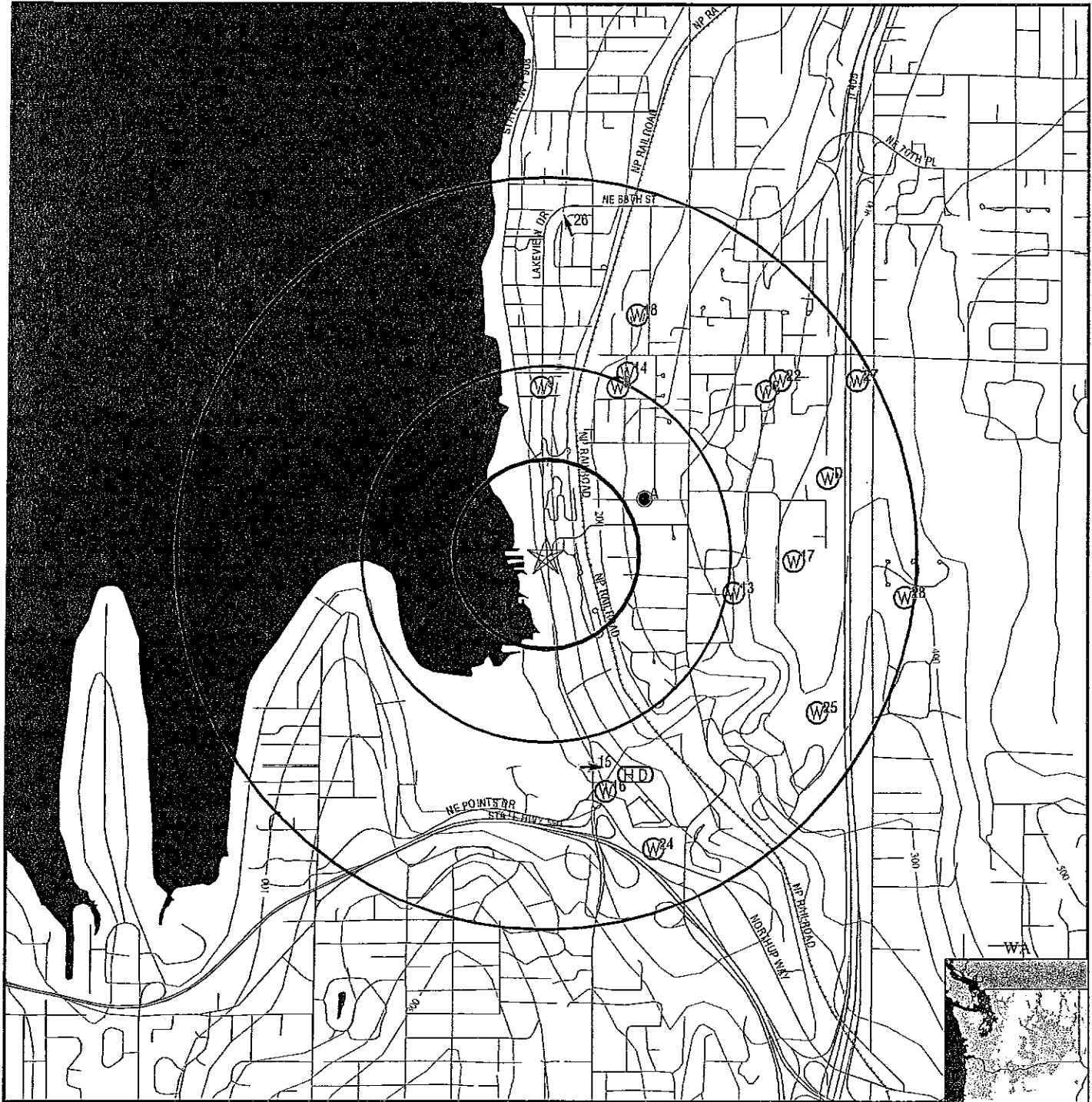
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	WAGRP0000003514	1/4 - 1/2 Mile ENE
A2	WAGRP0000003513	1/4 - 1/2 Mile ENE
A3	WAGRP0000003516	1/4 - 1/2 Mile ENE
A4	WAGRP0000003515	1/4 - 1/2 Mile ENE
A5	WAGRP0000003510	1/4 - 1/2 Mile ENE
A6	WAGRP0000003511	1/4 - 1/2 Mile ENE
A7	WAGRP0000003512	1/4 - 1/2 Mile ENE
13	WAGRP0000001095	1/2 - 1 Mile ESE

# PHYSICAL SETTING SOURCE MAP - 1676898.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data

SITE NAME: Yarrow Bay Marina  
 ADDRESS: 5207 Lake Washington Blvd  
 Kirkland WA 98033  
 LAT/LONG: 47.6534 / 122.2045

CLIENT: Sound Environmental Strategies  
 CONTACT: Erin K. Rothman  
 INQUIRY #: 1676898.2s  
 DATE: May 16, 2006

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## STATE DATABASE WELL INFORMATION

MAP ID

WELL ID

LOCATION  
FROM TP

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A1**

**ENE**  
 1/4 - 1/2 Mile  
 Higher

WA WELLS      WAGRP0000003514

Source Name:	WELL #3	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	P	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	03
Key ID:	3865003		

**A2**

**ENE**  
 1/4 - 1/2 Mile  
 Higher

WA WELLS      WAGRP0000003513

Source Name:	WELL #2	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	E	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	02
Key ID:	3865002		

**A3**

**ENE**  
 1/4 - 1/2 Mile  
 Higher

WA WELLS      WAGRP0000003516

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Source Name:	WELL #1	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	E	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	01
Key ID:	3865001		

---

**A4**  
**ENE**  
1/4 - 1/2 Mile  
Higher

WA WELLS    WAGRP0000003515

Source Name:	WELL #4	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	P	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	04
Key ID:	3865004		

---

**A5**  
**ENE**  
1/4 - 1/2 Mile  
Higher

WA WELLS    WAGRP0000003510

Source Name:	WELL #5	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	P	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	05
Key ID:	3865005		

---

**A6**  
**ENE**  
1/4 - 1/2 Mile  
Higher

WA WELLS    WAGRP0000003511

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Source Name:	WELL #6	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	P	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	06
Key ID:	3865006		

**A7**  
**ENE**  
 1/4 - 1/2 Mile  
 Higher

**WA WELLS    WAGRP0000003512**

Source Name:	WELL #7	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WW
Source Use:	P	SP X:	1581570
SP Y:	851472	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	07
Key ID:	3865007		

**A8**  
**ENE**  
 1/4 - 1/2 Mile  
 Higher

**FED USGS    USGS3278581**

Agency cd:	USGS	Site no:	473920122114701
Site name:	25N/05E-17F01		
Latitude:	473920		
Longitude:	1221147	Dec lat:	47.65537671
Dec lon:	-122.19762371	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SE NW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	200	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19560101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	38	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1956-01-01	Ground water data end date:	1956-01-01
Ground water data count:	1		



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1956-01-01	21	

9

North  
1/4 - 1/2 Mile  
Lower

FED USGS USGS3278650

Agency cd:	USGS	Site no:	473936122121301
Site name:	25N/05E-17N01		
Latitude:	473936		
Longitude:	1221213	Dec lat:	47.65982108
Dec lon:	-122.20484609	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SW SW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	175	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington, Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19440313
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported		
Source of depth data:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported		
Peak flow data begin date:	Not Reported		
Peak flow data count:	Not Reported		
Water quality data end date:	Not Reported		
Ground water data begin date:	Not Reported		
Ground water data count:	Not Reported		
		Hole depth:	Not Reported
		Project number:	Not Reported
		Daily flow data begin date:	Not Reported
		Daily flow data count:	Not Reported
		Peak flow data end date:	Not Reported
		Water quality data begin date:	Not Reported
		Water quality data count:	Not Reported
		Ground water data end date:	Not Reported

Ground-water levels, Number of Measurements: 0

B10

NNE  
1/4 - 1/2 Mile  
Higher

FED USGS USGS3278641

Agency cd:	USGS	Site no:	473935122115801
Site name:	25N/05E-17C01		
Latitude:	473935		
Longitude:	1221158	Dec lat:	47.65954333
Dec lon:	-122.20067936	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	255	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19300301
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	47	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**B11**  
**NNE**  
**1/4 - 1/2 Mile**  
**Higher**

**FED USGS      USGS3278649**

Agency cd:	USGS	Site no:	473936122115701
Site name:	25N/05E-17C02		
Latitude:	473936		
Longitude:	1221157	Dec lat:	47.65982111
Dec lon:	-122.20040159	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	255	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19010101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	33	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1951-06-19	Ground water data end date:	1951-06-19
Ground water data count:	1		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-06-19	28	

**B12**  
**NNE**  
**1/2 - 1 Mile**  
**Higher**

**FED USGS      USGS3278657**

Agency cd:	USGS	Site no:	473937122115601
Site name:	25N/05E-17C03		
Latitude:	473937		
Longitude:	1221156	Dec lat:	47.66009888
Dec lon:	-122.20012381	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	235	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington, Washington, Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19440301
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	115	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**13**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**WA WELLS      WAGRP0000001095**

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Source Name:	WELLS # 1-7	Range:	05E
Township:	25	Section:	17
QTR Section:	SENW	Source Type:	WF
Source Use:	P	SP X:	1582860
SP Y:	850114	PWS Name:	KING COUNTY WATER DISTRICT #1-YARRO
PWS ID:	38650	Source:	08
Key ID:	3865008		

14  
NNE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278665

Agency cd:	USGS	Site no:	473938122115501
Site name:	25N/05E-17C04		
Latitude:	473938		
Longitude:	1221155	Dec lat:	47.66037666
Dec lon:	-122.19984603	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NW S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	235	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19010101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	108	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

15  
SSE  
1/2 - 1 Mile  
Lower

Site ID:	4174		
Groundwater Flow:	E	AQUIFLOW	61081
Shallowest Water Table Depth:	7.80		
Deepest Water Table Depth:	13.08		
Average Water Table Depth:	Not Reported		
Date:	01/25/1996		

16  
SSE  
1/2 - 1 Mile  
Lower

FED USGS USGS3278346

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	473840122115901
Site name:	25N/05E-20C01		
Latitude:	473840		
Longitude:	1221159	Dec lat:	47.64426565
Dec lon:	-122.20095693	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NW S20 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	150	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19470101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	244	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1947-01-01	Ground water data end date:	1947-01-01
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
------	-----------------------	---------------------

1947-01-01

Note: The site was flowing, but the head could not be measured without additional equipment.

17  
East  
1/2 - 1 Mile  
Higher

FED USGS USGS3278522

Agency cd:	USGS	Site no:	473912122112001
Site name:	25N/05E-17J01		
Latitude:	473912		
Longitude:	1221120	Dec lat:	47.65315455
Dec lon:	-122.19012358	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	400	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19480701
Date inventoried:	Not Reported	Mean greenwich time offset:	PST



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-08-13	49	

**C19**  
NE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278640

Agency cd:	USGS	Site no:	473935122112701
Site name:	25N/05E-17Q01		
Latitude:	473935		
Longitude:	1221127	Dec lat:	47.65954338
Dec lon:	-122.19206814	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SW SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	243	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19440101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported		
Source of depth data:	Not Reported		
Real time data flag:	Not Reported		
Daily flow data end date:	Not Reported		
Peak flow data begin date:	Not Reported		
Peak flow data count:	Not Reported		
Water quality data end date:	Not Reported		
Ground water data begin date:	Not Reported		
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**C20**  
NE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278648

Agency cd:	USGS	Site no:	473936122112501
Site name:	25N/05E-17Q02		
Latitude:	473936		
Longitude:	1221125	Dec lat:	47.65982116
Dec lon:	-122.19151258	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SW SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Altitude:	198.5	Altitude method:	L
Altitude accuracy:	.1	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	Not Reported
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	Not Reported	Hole depth:	Not Reported
Source of depth data:	Not Reported	Project number:	Not Reported
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D21**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

FED USGS      USGS3278595

Agency cd:	USGS	Site no:	473923122111401
Site name:	25N/05E-17H01		
Latitude:	473923		
Longitude:	1221114	Dec lat:	47.6562101
Dec lon:	-122.18845694	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SE NE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	400	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19010101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	46	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1951-04-17	Ground water data end date:	1951-04-17
Ground water data count:	1		



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-04-17	40	

**22**  
NE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278656

Agency cd:	USGS	Site no:	473937122112301
Site name:	25N/05E-17Q03		
Latitude:	473937		
Longitude:	1221123	Dec lat:	47.66009894
Dec lon:	-122.19095702	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SW SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	200	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington, Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19430101
Date inventoried:	Not Reported	Mean greenwlch time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	50	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	Not Reported	Daily flow data begin date:	Not Reported
Daily flow data end date:	Not Reported	Daily flow data count:	Not Reported
Peak flow data begin date:	Not Reported	Peak flow data end date:	Not Reported
Peak flow data count:	Not Reported	Water quality data begin date:	Not Reported
Water quality data end date:	Not Reported	Water quality data count:	Not Reported
Ground water data begin date:	Not Reported	Ground water data end date:	Not Reported
Ground water data count:	Not Reported		

Ground-water levels, Number of Measurements: 0

**D23**  
ENE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278597

Agency cd:	USGS	Site no:	473924122111201
Site name:	25N/05E-17J02		
Latitude:	473924		
Longitude:	1221112	Dec lat:	47.65648788
Dec lon:	-122.18790138	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000



# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1958-04-08	18	

25  
ESE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278418

Agency cd:	USGS	Site no:	473851122111501
Site name:	25N/05E-17R01		
Latitude:	473851		
Longitude:	1221115	Dec lat:	47.64732126
Dec lon:	-122.18873459	Coor meth:	M
Coor acc:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	SE SE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	257.3	Altitude method:	L
Altitude accuracy:	.1	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19510518
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	148	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1951-08-18	Ground water data end date:	1951-08-18
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-08-18	103	

26  
North  
1/2 - 1 Mile  
Higher

Site ID:	444330	AQUIFLOW	61016
Groundwater Flow:	NNW		
Shallowest Water Table Depth:	Not Reported		
Deepest Water Table Depth:	Not Reported		
Average Water Table Depth:	Not Reported		
Date:	07/20/1995		

27  
ENE  
1/2 - 1 Mile  
Higher

FED USGS USGS3278655

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	473937122110701
Site name:	25N/05E-17A01		
Latitude:	473937		
Longitude:	1221107	Dec lat:	47.66009897
Dec lon:	-122.18651252	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NE NE S17 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	425	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19010101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	17	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1951-04-16	Ground water data end date:	1951-04-16
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-04-16	5	

28  
East  
1/2 - 1 Mile  
Higher

FED USGS    USGS3278506

Agency cd:	USGS	Site no:	473907122105701
Site name:	25N/05E-16M01		
Latitude:	473907		
Longitude:	1221057	Dec lat:	47.65176571
Dec lon:	-122.18373459	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	53
State:	53	County:	033
Country:	US	Land net:	NW SW S16 T25N R05E W
Location map:	KIRKLAND	Map scale:	24000
Altitude:	365	Altitude method:	M
Altitude accuracy:	2	Altitude datum:	NGVD29
Hydrologic:	Lake Washington. Washington. Area = 619 sq.mi.		
Topographic:	Not Reported		
Site type:	Ground-water other than Spring	Date construction:	19010101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	23	Hole depth:	Not Reported
Source of depth data:	driller	Project number:	Not Reported
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1951-04-23	Ground water data end date:	1951-04-23
Ground water data count:	1		

Ground-water levels, Number of Measurements: 1

Date	Feet below Surface	Feet to Sealevel
1951-04-23	13	

**GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS  
RADON**

**AREA RADON INFORMATION**

Federal EPA Radon Zone for KING County: 3

Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 98033

Number of sites tested: 3

<u>Area</u>	<u>Average Activity</u>	<u>% &lt;4 pCi/L</u>	<u>% 4-20 pCi/L</u>	<u>% &gt;20 pCi/L</u>
Living Area - 1st Floor	0.133 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.200 pCi/L	100%	0%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>®</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### **SSURGO: Soil Survey Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

## LOCAL / REGIONAL WATER AGENCY RECORDS

### **FEDERAL WATER WELLS**

#### **PWS: Public Water Systems**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## **PWS ENF: Public Water Systems Violation and Enforcement Data**

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

## **USGS Water Wells: USGS National Water Inventory System (NWIS)**

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## **STATE RECORDS**

### **Water Wells**

Source: Department of Transportation

Telephone: 360-705-7444

Group A well location points in Washington State.

### **Kitsap County Water Wells in Washington**

Source: Public Utility District No. 1 of Kitsap County

Telephone: 206-779-7656

## **OTHER STATE DATABASE INFORMATION**

## **RADON**

### **Area Radon Information**

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

### **EPA Radon Zones**

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## **OTHER**

### **Airport Landing Facilities: Private and public use landing facilities**

Source: Federal Aviation Administration, 800-457-6656

### **Epicenters: World earthquake epicenters, Richter 5 or greater**

Source: Department of Commerce, National Oceanic and Atmospheric Administration

## **STREET AND ADDRESS INFORMATION**

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Fax To: Sound Environmental Strategies  
Contact: Erin K. Rothman  
Fax : 206-306-1900  
Date: 05/16/2006

Fax From: Matt Bruns  
EDR  
Phone: 1-800-352-0050

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## EDR PUR-IQ<sup>®</sup> Report

*"the intelligent way to conduct historical research"*

for  
Yarrow Bay Marina  
5207 Lake Washington Blvd  
Kirkland, WA 98033  
Lat./Long. 47.65340 / 122.20450  
EDR Inquiry # 1676898.2s

The EDR PUR-IQ report facilitates historical research planning required to complete the Phase I ESA process. The report identifies the *likelihood* of prior use coverage by searching EDR's proprietary historical source(s) database comprising nationwide information on: city directories, fire insurance maps, aerial photographs, historical topographic maps, flood maps and National Wetland Inventory maps.

**Potential for EDR Historical (Prior Use) Coverage** - Coverage in the following historical information sources may be used as a guide to develop your historical research strategy:

1. **City Directory:** Coverage may exist for portions of King County, WA.
2. **Fire Insurance Map:** When you order online any EDR Package or the EDR Radius Map with EDR Sanborn Map Search/Print, you receive site specific Sanborn Map coverage information at no charge.
3. **Aerial Photograph:** Coverage exists for portions of King County for 1951, 1952, 1954, 1965, 1977, 1978, 1985, 1990, 1991 Shipping time 3-5 business days.
4. **Topographic Map:** The USGS 7.5 min. quad topo sheet(s) associated with this site:  
Historical: Coverage exists for King County  
Current: Target Property: TP | 1982 | 47122-F2 Kirkland, WA

EDR's network of professional researchers, located throughout the United States, accesses the most extensive national collections of city directory, fire insurance maps, aerial photographs and historical topographic map resources available for Kirkland, WA. These collections may be located in multiple libraries throughout the country. To ensure maximum coverage, EDR will often assign researchers at these multiple locations on your behalf. Please call or fax your EDR representative to authorize a search.



**EDR™ Environmental  
Data Resources Inc**

## EDR - HISTORICAL SOURCE(S) ORDER FORM

Sound Environmental Strategies  
Erin K. Rothman  
Account # 1024452

Yarrow Bay Marina  
5207 Lake Washington Blvd  
Kirkland, WA 98033  
King County  
Lat./Long. 47.65340 / 122.20450  
EDR Inquiry # 1676898.2s

Should you wish to change or add to your order, fax this form to your EDR account executive:

**Matt Bruns**  
Ph: 1-800-352-0050 Fax: 1-800-231-6802

### Reports

- EDR Sanborn Map® Search/Print
- EDR Fire Insurance Map Abstract
- EDR Multi-Tenant Retail Facility® Report
- EDR City Directory Abstract
- EDR Aerial Photo Decade Package
- USGS Aerial 5 Package
- USGS Aerial 3 Package
- EDR Historical Topographic Maps
- Paper Current USGS Topo (7.5 min.)
- Environmental Lien Search
- Chain of Title Search
- NJ MacRaes Industrial Directory Report
- EDR Telephone Interview

### **Shipping:**

- Email
- Express, Next Day Delivery
- Express, Second Day Delivery
- Express, Next day Delivery
- Express, Second Day Delivery
- U.S. Mail

RUSH SERVICE IS AVAILABLE

Customer Account  
Customer Account

Acct # \_\_\_\_\_  
Acct # \_\_\_\_\_

*Thank you*

# City Directory



**EDR**® Environmental  
Data Resources Inc

**The EDR-City Directory**  
*Abstract*

**Yarrow Bay Marina**  
5207 Lake Washington Blvd  
Kirkland, WA 98033

**Inquiry Number: 1676898.4**

**Thursday, May 18, 2006**

**The Standard in  
Environmental Risk  
Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

## **SUMMARY**

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1964 through 1996. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1964	Address not listed in research source (5304)	Polk's City Directory
	No other addresses 5100-5304	Polk's City Directory
1968	<b><u>**LAKE WASHINGTON BLVD**</u></b>	Polk's City Directory
	Residence (5205)	Polk's City Directory
	Residence (5206)	Polk's City Directory
	Address not listed in research source (5210)	Polk's City Directory
	Residence (5211)	Polk's City Directory
	Residence (5213)	Polk's City Directory
	Vacant (5215)	Polk's City Directory
	Residence (5217)	Polk's City Directory
	Vacant (5225)	Polk's City Directory
	Residence (5228)	Polk's City Directory
	Address not listed in research source (5300)	Polk's City Directory
	Address not listed in research source (5302)	Polk's City Directory
	Address not listed in research source (5304)	Polk's City Directory
	No other addresses 5100-5304	Polk's City Directory
1973	<b><u>**LAKE WASHINGTON BLVD**</u></b>	Polk's City Directory
	Residence (5205)	Polk's City Directory
	Residence (5206)	Polk's City Directory
	Residence (5210)	Polk's City Directory
	Residence (5211)	Polk's City Directory
	Vacant (5215)	Polk's City Directory
	Residence (5217)	Polk's City Directory
	Residence (5228)	Polk's City Directory