

LUST# 2225
Chevron Station
Madison



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ASSOCIATES, INC.

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PHASE I ENVIRONMENTAL AUDIT

Arboretum Court

3121, 3130, and 3131 East Madison Street
Seattle, Washington

THE SINGLETON ASSOCIATES

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May 19, 1997

JN 7160

The Singleton Associates
788 Garfield Street
Seattle, Washington 98109

Attention: Mr. Lee Singleton

Subject: **PHASE I ENVIRONMENTAL AUDIT**
Arboretum Court
3121, 3130 and 3131 East Madison Street
Seattle, Washington

Dear Mr. Singleton:

Environmental Associates, Inc. has completed an Phase I Environmental Audit of the subject property located in Seattle, Washington. This report, prepared in accordance with the terms of our proposal dated May 5, 1997, and in a manner consistent with the intent and methodologies of ASTM E 1527-94, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", summarizes our approach to the project along with results and conclusions.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. Following your instructions, four copies of this report are being distributed to you. No other distribution or discussion of this report will take place without your prior approval in writing. Additional copies are available for a small fee.

Relying solely upon the available information reviewed or otherwise developed in the course of our study, the following conditions of potential environmental significance have been identified:

- Unknown/unassessed impacts (if any) from former Richfield/Hadfield retail gasoline station operations in the location of the Arboretum Court I building.
- Unknown/unassessed impacts (if any) from former Chevron retail gasoline station operations in the location of the Arboretum Court III building.
- Unknown/unassessed impacts (if any) relating to dry cleaner operations at two separate localities.



The Singleton Associates
May 15, 1997

JN 7160
Page - 2

Momentarily excluding the above-noted potential concerns, it would appear that the property is free from contamination by potentially hazardous, dangerous, or toxic materials. Approaches to management or additional evaluation concerning the above-listed conditions are provided for your consideration and discussion in the Conclusions/Recommendations section of this report.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.



Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

EPA-Certified Asbestos Inspector/Management Planner
I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor
State Certification #947458636

License: W000010 (Washington)

License: 11464 (Oregon)

License: 876 (California)

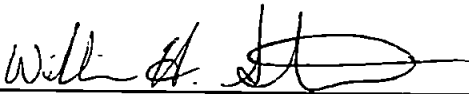
PHASE "1" ENVIRONMENTAL AUDIT

Arboretum Court
3121, 3130 and 3131 East Madison Street
Seattle, Washington

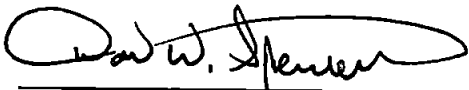
Prepared for:

The Singleton Associates
788 Garfield Street
Seattle, Washington 98109

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.



William Strait, Project Manager
Environmental Scientist
Registered Site Assessor
EPA-Certified AHERA Building Inspector
I.D. No. J&J961017-BIR-05



Don W. Spencer, M.Sc., P.G., R.E.A.
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Reference Job Number: JN 7160

May 19, 1997

ENVIRONMENTAL ASSOCIATES, INC.

TABLE OF CONTENTS

METHODOLOGY/SCOPE OF WORK	5
FINDINGS	6
General Description	6
Geologic Setting	8
Development History and Land Use	9
Property Conveyance/Ownership Data	10
Site Reconnaissance	13
Check For PCB-Containing Materials	14
Check For Asbestos-Containing Materials	15
Radon Evaluation	15
Water Supply, Waste Water and Solid Waste Management	16
Review: Washington DOE Listing Of Underground Storage Tanks	16
Review: EPA & State Records Of Potentially Hazardous Sites	19
Superfund	19
MTCA	19
TSD/RCRA/FINDS	20
ERNS	21
Review: Landfill Documents	21
CONCLUSIONS/RECOMMENDATIONS	21
LIMITATIONS	24
REFERENCES	25
PLATES	
Plate 1 - Vicinity Map	
Plate 2 - Site Photographs	
Plate 3 - Site Plan	
APPENDICES	
Appendix A - AHERA Certification Documents	

METHODOLOGY/SCOPE OF WORK

Our study approach consisted of completing a series of investigative tasks intended to satisfy the level of effort often referred to as "due diligence" by the "innocent purchaser" in the context of the Superfund Amendment and Reauthorization Act of 1986 (SARA), and nearly identical requirements set forth in the Model Toxics Control Act (MTCA), Chapter 70.105 D (Section 040) RCW pertaining to standards of liability. The objective of a Phase I audit is to minimize potential future liability for environmental problems by demonstrating that at the time of acquisition or refinancing, the owner, buyer, or lender had no knowledge or reason to know that any hazardous substance had been released or disposed of on, in, or at the property.

In an effort to evaluate condition and previous uses of the property in a manner consistent with good commercial and customary practice and in general accordance with methods outlined under ASTM E 1527-94 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", our scope of work for this study included:

- Review of chronology of ownership and site history using the resources of the King County Assessor's Office, business directories from several time periods, and aerial photography from several time periods as primary resources. This included an attempt to identify possible former industries or uses presenting some potential for generating waste which may have included dangerous or hazardous substances as defined by state and federal laws and regulations.
- Acquisition and review of available reports and other documentation pertaining to the subject site or nearby sites.
- Review of Washington Department of Ecology (WDOE) and Seattle-King County Health District documents regarding current and abandoned landfills.
- Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the EPA National Priority List (NPL), the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, and Emergency Response Notification System (ERNS) lists of sites which are potentially contaminated or which produce hazardous substances as a normal part of their commercial operation in the vicinity of the site.
- Review of the current WDOE listing of underground storage tanks (USTs) along with the WDOE's Leaking Underground Storage Tank (LUST) listing for WDOE-documented leaking USTs in the vicinity of the subject property.

- Review of the current WDOE Confirmed and Suspected Contaminated Sites (CSCS) list of potentially contaminated sites which have been the subject of hazardous waste investigation and/or cleanup activity in conjunction with the Washington Model Toxics Control Act (MTCA) Chapter 173-340 WAC.
- Risk evaluation for natural-occurring radon.
- A reconnaissance of the subject property (including buildings) and neighboring areas to look for evidence of potential contamination in the form of soil stains, odors, asbestos, vegetation stress, discarded drums, discolored water, careless manufacturing or industrial practices, etc.
- Preparation of a summary report which documents the audit process and findings.

FINDINGS

GENERAL DESCRIPTION

The subject property includes three parcels covering a total of approximately 43,038 square feet of land. Existing improvements include three two-story buildings which were constructed in phases from 1986 to 1989. Arboretum Court I, at 3127 East Madison Street (south side of the street), encloses a net area of approximately 14,043 square feet and has an additional 8,788 square feet of basement parking. Arboretum Court II, at 3130 East Madison Street (north side of the street), encloses a net area of approximately 18,426 square feet and houses an additional 11,021 square feet of basement parking. Arboretum Court III, at 3115 East Madison Street (south side of the street), encloses a net area of approximately 17,192 square feet and houses an additional 10,442 square feet of basement parking. Additional improvements include asphalt paved parking at street level in front of the buildings. Current tenants of the site include:

Arboretum Court 1 (3131 East Madison Street)

100 - Ropa Bella
101 - Northwest Catering and Cafe
103 - Frenchy's Manicure
105 - Sunset One Hour Photo
105B - Northwest Catering Office
200 & 201 - Jensen and Associates
202 - Frenchy's
203A - Sun America Securities

Arboretum Court II (3130 East Madison Street)

- 100 - Great Kitchens, Inc.
- 101/102 - Woodside Travel
- 103 - Performance Therapy
- 104 - Sound Mind & Body Gym
- 106 - Nishino
- 202 - Madison Park Electrolysis
- 203A - Lucy Cantril, Pam Powel, Jane Thomas
- 203B - Julie Weiss, Pat Leckenby, Ralyn Baird, Mavin Rosenberg
- 204 - Tate Law Office
- 205 - The Business Office, Inc.
- 206 - W.L. Gore and Associates

Arboretum Court III (3121 East Madison Street)

- 100 - Teriyaki Bowl
- 101 - Arosa Cafe
- 102 - John L. Scott
- 103 - Project Babylon
- 103A - Brett Maughan CPA
- 104 - Trichoter Yarn Shop
- 105 - Ultra Dry Cleaners
- 106 - Keturah
- 203 - Salon Dallas
- 204 - Arboretum Medical Group
- 205 - Cynthia Dyeuss, M.D.
- 206A - Arboretum Mortgage
- 206B - Tricoter Yarn Shop
- 207 - Electronic Communication Display
- 208 - Meredith Fine, M.D., Gary K. Grenell, PH.D.
- 209 - Center For Life Decisions
- 210 - Deborah Rutt, Donna Lawson

The approximate location of the site is shown on the Vicinity Map, Plate 1, appended herewith.

The buildings are located in a mixed commercial/residential area approximately two miles northeast of downtown Seattle, Washington. Photographs reflecting the character of the subject property are provided with this report as Plate 2.

A brief description of land use on nearby parcels is provided below. Plate 3, Site Plan, depicts the setting of the subject property and land use for adjacent sites.

Arboretum Court I and III

- Northeast:** Immediately northeast of the site is 32nd Avenue East and a single-family dwelling. Across the street is a steep slope up to a residential area.
- Northwest:** East Madison bounds the site to the northwest across which is the Arboretum Court II. Farther to the southwest is a Texaco service station.
- Southeast:** A concrete paved alley bounds the site to the southeast across which is the Seattle Fire Station #34 and several residential structures.
- Southwest:** Immediately southwest of the site is Island Video.

Arboretum Court II

- Northeast:** Immediately northeast of the site is a commercial building occupied by an Architectural firm.
- Northwest:** An asphalt paved alley borders the site to the northwest across which are several residential dwellings.
- Southeast:** East Madison Street bounds the site to the southeast across which is Arboretum Court I.
- Southwest:** A Texaco service station is located southwest of the subject site.

According to the City of Seattle Department of Construction and Land Use, the subject property is zoned as NC2-40 (neighborhood commercial).

GEOLOGIC SETTING

Physiographically, the site is situated on a gently rolling elevated plain which was formed during the last period of continental glaciation that ended approximately 13,500 years ago.

Published geologic maps for the site vicinity (Liesch, et al, 1963) suggest that much of the material underlying the subject site may be glacial till, a dense heterogenous mixture of silt, sand, and gravel. Typically, the till exhibits relatively low vertical hydraulic conductivity which frequently results in formation of a "perched" water table along it's upper contact. The "perched" water table (if present) is frequently seasonal and derives recharge primarily from infiltration of precipitation through more permeable overlying soils.

Topographically, the site is situated on a west-facing slope, approximately 140 feet above sea level. Based upon inference from topography and local drainage patterns, it appears that shallow-seated groundwater (if present) in the vicinity of the subject property may flow from the east toward the west.

Although no site specific information has been developed by our firm with respect to depth to groundwater at this site, our experience in the area suggests that "perched" groundwater (if present) beneath the site may lie at a depth of approximately 10 to 20 feet beneath the ground surface.

With respect to surface water resources, Lake Washington is located approximately one-half mile to the east and one mile to the north of the site.

DEVELOPMENT HISTORY AND LAND USE

Sources reviewed for information on site and area development and land use included the resources of the King County Assessor's Office, Washington State Archives, Seattle Public Library and aerial photographs of the subject property and surrounding area from several time periods.

Aerial photographs of the area were reviewed for the years 1936, 1946, 1956, 1960, 1969, 1974, 1980, 1985, 1990, and 1995. The time interval between the various historic aerial photographs selected for this particular project is, in our opinion, entirely adequate for the intended purpose which was to permit a general assessment of overall development and land use in the vicinity of the subject property. The following paragraphs provide an interpretive summary of our observations in each photo.

- | | |
|----------------------------------|---|
| 1936, 1946
& 1956 | Several residential dwellings are located on the subject property including apartment buildings and single-family residences. A gasoline station is visible to the southwest of the current Phase II property. Alleys are located to the northwest of the northern most building and southeast of the southern most building. The existing commercial building is present to the southwest of the current Phase III property. Residential buildings are located to the northwest, northeast, and southeast of the site. |
| 1960 | A gasoline station is present in the location of the current Phase I property. The rest of the subject property and adjacent parcels remain similar in use to the previous photographs. |

- 1969** Another gasoline station is present on the southern most section of the site in the location of the current Phase III property. The gasoline station to the southwest of the northern most section of the site appears to have been remodeled with a pump island canopy and expanded service station.
- 1974** One of the residential structures on the northern section of the site is no longer present. The fire station building is visible to the southeast of the southern section of the site across the alley.
- 1980 & 1985** The subject site and adjacent properties appear to be similar in use to the 1974 photograph, except one of the residential dwellings that had been located on the northern section of the site is no longer present.
- 1990 & 1995** All three phases of the current Arboretum Court are present on the site with asphalt paved parking in front of the buildings. The adjacent parcels appear to be similar in use to the 1985 photograph.

PROPERTY CONVEYANCE/OWNERSHIP DATA

From the file resources of the King County Assessor's Office and Washington State Archives, it appears that the subject property was created by combining eleven separate tax lots. Ownership history of the three combined parcels and the individual lots is given below:

Arboretum Court I (lots 14-16)

INSTRUMENT	OWNER	DATE OF PURCHASE
Archive Records	F.J. Widic	February 10, 1938
Deed	Richfield Oil Corporation	October 14, 1959
Deed	Petrocoa Corporation	?
Deed	Atlantic Richfield Company	June 10, 1975
Deed	Ross Hadfield, Claire and Russell Hadfield	June 27, 1975
Deed	Lee and Susan Singleton	March 17, 1986
Quit Claim Deed	Lee Singleton	June 11, 1987
Quit Claim Deed	Singleton Family Trust	December 3, 1996

Arboretum Court II (lots 5-8)

INSTRUMENT	OWNER	DATE OF PURCHASE
Archive Records	Almira Knight (lot 5)	?
Archive Records	E.A. Sherer (lot 8)	February 7, 1934
Archive Records	Irene Cline, et ux (lot 7)	September 4, 1935
Archive Records	1st Savings and Loan of Chehalis (lot 6)	May 24, 1940
Archive Records	L.G. Sbachs (lot 7)	March 27, 1941
Deed	Lewis Abraham (lot 5)	May 26, 1953
Real Estate Contract	L.J. Abraham (lot 7)	June 10, 1958
Deed	Guillermo A. Gonzales	October 15, 1962
Real Estate Contract	Alfred Montezna (lots 5, 6, & 7)	April 24, 1964
Deed	Alfred V. Perhou III (lot 8)	September 28, 1966
Deed	Madison Psychiatric Clinic (lots 5, 6, & 7)	March 15, 1968
Real Estate Contract	Ralph and Mary Victor (lots 5, 6, 7, & 8)	?
Real Estate Contract	Oliver Osborne and Barbara Minchin	February 1, 1974
Real Estate Contract	Richard Dion	February 8, 1978
Deed	Seavest Financial Corporation	September 18, 1980
Quit Claim Deed	Blakely Associates	October 9, 1986
Assessor's Records	Robert E. Ordal	?
Deed	Urban Environment Developers	November 6, 1987
Deed	Fremont Dock Company	December 22, 1987
Deed	Lee Singleton	June 14, 1989
Quit Claim Deed	Singleton Family of Washington	December 3, 1996

Arboretum Court III (lots 10-13)

INSTRUMENT	OWNER	DATE OF PURCHASE
Archive Records	Leo W. Elliott (lot 13)	May 16, 1931
Archive Records	E.D. Tyler (lot 12)	June 23, 1934
Archive Records	Mary Olive Nellis (lot 11)	October 18, 1937
Archive Records	University of Washington (lot 10)	June 12, 1939
Archive Records	Ethel M. Finicle (lot 10)	June 26, 1942

INSTRUMENT	OWNER	DATE OF PURCHASE
Archive Records	Washington Baptist Convention (lot 11)	September 9, 1956
Archive Records	John S. Boyton (lot 10)	July 20, 1957
Real Estate Contract	John H. Thompson (lot 13)	July 5, 1962
Real Estate Contract	M.P. Investment Company (lot 13)	July 9, 1965
Deed	M.P. Investment Company (lot 12)	March 14, 1967
Deed	H.W. Ewing (lots 10 & 11)	April 24, 1967
Archive Records	Standard Oil of California (lots 10, 11, 12, & 13)	1969
Assessor's Records	Spectrum Construction	?
Assessor's Records	Richard & Patti Hoy	March 31, 1981
Quit Claim Deed	DP Enterprises	September 1, 1981
Assessor's Records	Lee W. Singleton	?
Quit Claim Deed	Singleton Family Trust	December 3, 1996

Owing to the provincial methods employed by the assessor's office in making earlier information available to the public, other information regarding the past ownership was neither practically reviewable nor reasonably ascertainable in the context of ASTM usage and our proposed scope of work. The absence of such information has no material effect upon the conclusions of this report.

According to resources available at the Seattle Public Library and the Washington State Archives, and following review of aerial photographs, it appears that the original eleven parcels which comprise the subject property were formerly developed with residential structures. In 1959, a retail gasoline station was built at 3127 E. Madison Street and remained on the site until its demolition in approximately 1986, after which the existing Arboretum Court I was constructed on the site. A Chevron service station was constructed at 3115 E. Madison Street and occupied the site until approximately 1986. The parcel located north of East Madison Street (3130 E. Madison Street) remained residential in use until approximately 1988, when the existing Arboretum Court II building was constructed on the site.

Review of records on file at the Washington State Archives revealed that several of the former on-site residential dwellings were heated by oil burning units. According to Mr. Lee Singleton, owner, only three of these residences had underground storage tanks. These tanks were located in the area of the Arboretum Court III building and were removed during construction of the building. No other tanks were reportedly encountered during the excavation work.

Polk street directories available from 1938 to 1994 documented several businesses which have operated at the site. These included:

- The 1938 to 1960 Polk directories list the site as residential in use.
- The 1964 to 1967 Polk directories listing confirmed that 3127 East Madison Street was occupied by Al's Richfield Service Station.
- The 1970 to 1975 Polk directories listing reveals that Ron's Chevron Service Gas Station occupied 3115 East Madison Street and Palmer's Richfield Service occupied 3127 East Madison Street.
- The 1978 to 1985 Polk directories listing reveals that the Chevron Service Station occupied 3115 East Madison Street and Hadfields Garage auto repair and gas station occupied 3127 East Madison Street.
- The 1987 to 1990 Polk directories listing reveals that the 3115 East Madison Street was vacant. 3127 East Madison Street was not listed. The northern most portion of the site on the north side of East Madison Street remained residential in use.
- The 1994 Polk directory lists the site as The Arboretum Court.

SITE RECONNAISSANCE

An environmental scientist, EPA-certified Asbestos Building Inspector from our firm visited the property on May 13, 1997 to review on-site conditions and land use practices in the surrounding area. Ms. Kristen Robinson, the Office Manager for The Singleton Associates, provided access to the property and information regarding facility operation. Specific representative interior areas reviewed during our site visit included

- Court I
 - Frenchy's (massage parlor, unit 202)
 - Sun America Securities
 - underground parking garage
- Court II
 - Woodside Travel (unit 102)
 - W.L. Gore & Associates (unit 206)
 - underground parking garage
 - elevator
- Court III
 - Arosa Coffee (unit 101)
 - Ultra Dry Cleaner's (unit 105)
 - underground parking garage
 - elevator

The buildings, which were reportedly erected in three phases from 1986 to 1989, are primarily of wood-frame construction. Roofs are sloped and covered with composite shingles. Paved asphalt parking areas are located in front of the buildings along East Madison Street. Typical building materials and/or conditions observed during our site reconnaissance included:

- Floors are concrete covered with carpet, sheet vinyl, ceramic tile, and 12 inch square vinyl tile.
- Interior walls throughout the buildings are either painted or wallpapered drywall.
- Ceilings are either painted drywall or suspended ceiling panels.
- Incandescent and fluorescent light fixtures were noted throughout the buildings.
- Heat is provided by individual or shared heat pumps powered by either natural gas or electricity.
- Basement parking is located beneath each of the buildings. Entrance to the parking is located in the alleys behind the buildings. Floors in the parking areas are cement. According to Mr. Lee Singleton, with The Singleton Associates, the sites were excavated to a depth of approximately 10 feet below grade in order to construct the basement parking.
- Several dumpsters were observed near building perimeters. Areas around the dumpsters were relatively clean and free of debris.

According to Ms. Robinson, there are no above or below-ground fuel storage tanks on the property. No evidence to suggest the presence of underground fuel storage tanks (i.e., vent lines, filler caps, etc.) was noted on the property. Similarly, no water wells or groundwater monitoring wells were noted on the property. At the time of our visit, no visibly discernable stains, odors, or unusual vegetation conditions that might otherwise indicate the potential presence of hazardous materials were observed on the subject property.

CHECK FOR PCB-CONTAINING MATERIALS

Prior to 1979, polychlorinated biphenyls (PCBs) were widely used in electrical equipment such as transformers, capacitors, switches, fluorescent lights (ballasts) and voltage regulators owing to their excellent cooling properties. In 1976, the EPA initiated regulation of PCBs through issues pursuant to the Toxic Substances Control Act (TSCA). These regulations generally control the use, manufacturing, storage, documentation, and disposal of PCBs. EPA eventually banned PCB use in 1978, and adoption of amendments to TSCA under Public Law 94-469 in 1979 prohibited any further manufacturing of PCBs in the United States.

- Light Fixtures** In an effort to enhance the thoroughness of our review, we inspected representative fluorescent light ballasts in the building to ascertain if the ballast labeling addressed PCB content. Inspection of the representative lighting revealed that the ballasts were manufactured by Universal Manufacturing and Advance Transformer Company and were clearly labeled "No PCBs".
- Main Service Electrical Transformers** No pad-mounted or pole-mounted electrical transformers were noted on the site.

CHECK FOR ASBESTOS-CONTAINING MATERIALS

During reconnaissance of the property, we observed building materials to assess the potential for the presence of asbestos-containing materials (ACM). No materials suspected to contain asbestos were identified in the course of our site review.

RADON EVALUATION

- Occurrence** Radon is a naturally occurring, highly mobile, chemically inert radioactive gas created through radioactive decay of uranium and thorium. The potential for occurrence of radon varies widely and is dependent upon (1) the concentration of radioactive materials in the underlying bedrock; (2) the relative permeability of soils with respect to gases; and (3) the amount of fracturing or faulting in surficial materials (EPA, 1987).
- Health Risks** The concern regarding radon and its potential effects upon humans arises from the results of studies (EPA 1987) which suggest that approximately fifteen percent of all lung cancer mortalities in the United States may be attributable to exposure to radon.

The EPA has established a concentration of radon of four (4) picocuries per liter (pCi/l) as a maximum permissible concentration "action level". Concentrations above this value would signal a potential health threat. According to some studies, an average concentration in homes across the United States is on the order of 1.4 pCi/l.

**Risk of
Potential
Exposure in
the Seattle
Area**

The Bonneville Power Administration (BPA) recently published the results of measurements for radon made in residences throughout the region they serve which includes Washington, Oregon and Idaho. For the Seattle area in the immediate vicinity of the subject property 134 tests have been performed. The results of their work (BPA, 1993) suggest that radon levels over 4 pCi/l were detected in none of the monitored residences in the vicinity of subject site. Additionally, the average listed radon reading in the subject site township was 0.51 pCi/l, well below the EPA threshold of concern.

On the basis of the findings presented in the cited BPA survey, we conclude that the potential for exposure to natural-occurring radon at the subject site is low.

WATER SUPPLY, WASTE WATER AND SOLID WASTE MANAGEMENT

Information supplied by the Public Works Department of the City of Seattle revealed that water and sewer services are provided by the City.

Two dumpsters located on cement were observed at the northeast end of the Arboretum Court I building. Two dumpsters located on cement and two on asphalt were observed on the backside of the Arboretum Court II in the alley. One solid waste dumpster and two recycling dumpsters located on cement were note on the Arboretum Court III property. The dumpsters, which are maintained by Waste Management of Seattle and Rainier Disposal, were relatively clean and free of overflowing debris at the time of our site reconnaissance.

REVIEW OF WASHINGTON DOE LISTING OF UNDERGROUND STORAGE TANKS

Review of the current Washington Department of Ecology listing of underground storage tanks (USTs) suggests that five (5) registered USTs are located within a one-half mile radius of the subject property. Information regarding these USTs and their status is provided below:

COMPANY & ADDRESS	AGE (years)	STATUS	HYDRO. POS.*	DISTANCE & DIRECTION	CONTENTS
Washington Park # 91 2820 E. Ward Street	20	IU	D	1/8 Mile NW	**
	20	IU			**
	20	IU			**
	20	IU			Unleaded
Texaco #63-232-0378 3100 East Madison Street	13	IU	D	Adjacent W-SW	Leaded
	13	IU			Unleaded
	13	IU			Unleaded
	13	IU			Diesel

COMPANY & ADDRESS	AGE (years)	STATUS	HYDRO. POS.*	DISTANCE & DIRECTION	CONTENTS
The Landmark Group 3101 East Madison Street	** ** ** ** **	RM RM RM RM RM	D	100 Feet SW	Leaded Leaded Leaded Leaded Used Oil
Chevron #94715 3115 East Madison Street	29 29 29 29 29	RM RM RM RM RM	SITE	SITE	** Leaded Unleaded Unleaded Used Oil
Seattle Fire Station #34 633 32nd Avenue East	16	IU	U	125 Feet SE	Diesel
Status Code: IU In Use RM Removed * "Hydro. Pos." (hydrologic position) in the table refers to the position of the USTs in relation to the subject property and the probable direction of groundwater flow. Cross (X), Down (D), and Up (U) indicate gradient direction. In general, concern arises when USTs are located up-gradient from the subject property. ** Information regarding age of tanks, status, capacities, and/or content was not included for these sites in the WDOE UST list.					

According to files available from the WDOE, the diesel UST at the Seattle Fire Station #34 has a capacity of 550 gallons. Tightness testing is conducted annually and no reported leaks or spill have reported for the site. This tank is located approximately 150 feet southwest of the subject property in an inferred up-gradient hydrologic position.

In addition, review of Polk street directories and building plans available at the City of Seattle Department of Construction and Land Use revealed that a Richfield retail gasoline station was located on the subject property in the location of Arboretum Court I at 3127 East Madison Street. Review of the plans indicate that three underground storage tanks (two 6,000-gallon and one 4,000-gallon) had been located on the southwest side of the parcel approximately fifty feet southeast of East Madison Street. The pump island was located approximately 60 feet southwest of the existing single-family residence to the northeast of the property and 25 feet southeast of East Madison Street. A waste oil UST (280-gallon) was located on the southeastern portion of the property approximately 30 feet west of the intersection of the alley and 32nd Avenue East. Two hydraulic lifts were present in the service station building. Records regarding status and contents of the tanks were not available from the WDOE. According to Mr. Singleton, all tanks were removed during construction of Arboretum Court I. He stated that no contamination was encountered during removal of the tanks. No reports, tests, results, etc., were provided to us regarding that activity.

The Chevron Station at 3115 East Madison was located in the location of the current Arboretum Court III site. Two tanks (one 1,000-gallon waste oil and one 550-gallon on unknown contents) were located approximately 5 feet northwest of the alley in the eastern portion of the site. Three larger USTs (two 10,000-gallon gasoline and one 6,000 gallon diesel) were located at the southwestern portion of the site approximately 50 feet southeast of East Madison Street. Two pump islands were located approximately 40 feet southwest of the Arboretum Court I parcel and 12 to 35 feet southeast of East Madison Street. Two hydraulic lifts were located in the service station building. All of the tanks and service station appear to have been located in the footprint of the current building. The pump islands were located in the area of the existing asphalt paved parking lot. According to WDOE records the tanks have been removed.

According to the most recent WDOE Leaking Underground Storage Tank (LUST) listing, three (3) of the above-listed tank facilities located within approximately a one-half mile radius of the subject property have reported accidental releases or leakage to the WDOE in the past.

- Texaco #63-232-0378 at 3100 East Madison Street is the site of petroleum contaminate soil and groundwater. Remediation of contaminated soils has been completed on the site. Following the remediation concentrations of total petroleum hydrocarbons dropped significantly. Quarterly monitoring of on-site wells indicates that groundwater flow is toward the north to northwest away from the subject property. Laboratory results of water samples obtained from an up-gradient monitoring well located between the site of the release and the subject property indicated that groundwater at that location has not been impacted. This facility is located adjacent to the southwest of the subject site.
- The Landmark Group at 3101 East Madison is the site of petroleum contaminated soils that were discovered during the removal of five USTs that were associated with a former retail gasoline station. This facility is located approximately 100 feet southwest of Arboretum Court III in a down-gradient hydrologic position.
- Chevron #94715 at 3115 East Madison was formerly located on the site of the current Arboretum Court III. According to a report available from the WDOE (Rittenhouse-Zeman and Associates, Inc., 1989), three underground storage tanks were encountered on the site during construction of the current building. These tanks were reportedly underground heating oil storage tanks associated with former on-site residential dwellings. Laboratory analysis of soils adjacent to and beneath the tanks indicated that concentrations of total petroleum hydrocarbons as gasoline were detected below on of the tanks were as high as 7,800 parts per million. This contamination was likely from one of the two gasoline stations on the subject property. A total of approximately 3 cubic yards of contaminated soil were removed from the three UST locations and were disposed of at the Cedar Hills Landfill. A boring was completed in the vicinity (down-gradient) of the tank where the highest concentrations were detected. Groundwater was encountered at a depth of 6 feet. Laboratory analysis of a water sample obtained from the boring indicated non-detectable concentrations of benzene, toluene, ethylbenzene, and

xylene. According to Mr. Singleton, Chevron had removed all of their USTs at the time of demolition of the former gasoline station. He also stated that several borings were made at the northeast end of the site for auger cast pilings to a depth of 40 feet. No signs of contamination was encountered during this work. Reportedly, no other tanks were encountered in the vicinity of this site during excavation for the Arboretum Court III building and basement parking lot to a depth of approximately 10 feet.

The approximate locations of the WDOE-documented underground storage tanks within a one-half mile radius of the subject property are indicated on the Vicinity Map attached to this report as Plate 1.

EPA & STATE RECORDS OF POTENTIALLY HAZARDOUS SITES

Superfund Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and National Priority List (NPL) listings revealed no CERCLIS and no NPL sites within approximately one mile of the subject property that have been designated as potentially hazardous or eligible for participation in the Superfund cleanup program.

MTCA The Washington Department of Ecology hazardous waste cleanup and investigation program was launched in 1989 as a part of the Model Toxics Control Act (MTCA), Chapter 173-340 WAC, in order to evaluate potential and actual hazards at sites within the state. Of the more than 630 sites currently on the program list, one (1) is located within a one mile radius of the subject property.

- L and E Cleaners at 2800 East Madison Street is the site of confirmed soil and groundwater contamination and suspected surface water contamination by halogenated organic compounds. This facility is located approximately one-quarter of a mile southwest of the subject property in a cross-gradient hydrologic position.

Considering the substantial separation distance and cross-gradient hydrologic positions of the listed MTCA site in relation to the subject property as positive risk mitigation factors, it is our opinion that the potential for environmental impairment of the subject property from this source is very low.

**TSD/RCRA/
FINDS**

Review of the EPA's Treatment, Storage and Disposal (TSD) facilities listing, for sites that treat, store or dispose of potentially hazardous materials. revealed that no TSD sites are located within a one mile radius of the subject property.

Review of the EPA's Facility Index System (FINDS) listing, revealed five (5) sites within a one-half mile radius of the subject property which are regularly monitored by EPA/DOE for the use or generation of small amounts of hazardous substances as a normal part of their business activities. These include:

COMPANY & ADDRESS	REGULATORY AGENCY	GENERATOR CODE
City of Seattle Washington Playfield Lake Washington Blvd. and Interlaken	CERCLIS	*
Texaco Service Station #63232378 3100 E. Madison Street	RCRIS	VSQG
Ultra Cleaners 3121 E. Madison Street	RCRIS	VSQG
Bush School 405 36th Avenue E	NCDB	*
City of Seattle Washington Park 2820 E. Ward Street	RCRIS	SQG
Regulatory Agency: RCRIS RCRA Listing CERCLIS Superfund NCDB National Compliance Data Base Generator Code: SQG - Small Quantity Generator, between 100 and 1,000 kilograms per month of hazardous materials. VSQG - Very Small Quantity Generator, less than 100 kilograms per month of hazardous waste.		

Ultra Cleaners at 3121 East Madison is currently occupying Unit 105 of the Arboretum Court III. Dry cleaning chemicals are stored behind the enclosed dry cleaning machine on cement in covered 20 gallon drums. No staining was noted at the time of our site reconnaissance. According to Mr. James Kim, owner of Ultra Cleaners, Safety Kleen regularly picks up the waste chemicals used in the enclosed dry cleaning machine. He also stated that they have occupied the current unit for approximately seven (7) years. Prior to that they occupied Unit 104 in the Arboretum Court II building for two years. Review of available records at the WDOE indicate that a site inspection was conducted on March 28, 1996. No reported complaints or violations have been reported.

ERNS Review of the EPA's Emergency Response Notification Systems (ERNS) list for the State of Washington revealed that the subject site has not reported a spill. This list has been compiled since October 1987.

LANDFILLS

A review of Seattle-King County Department of Public Health and WDOE documents regarding current and abandoned landfills revealed that there is one documented landfills located within a mile radius of the subject property.

- Washington Park Landfill Site was the largest garbage fill site in the City of Seattle until 1935 when plans for the Arboretum were completed. There is very little information on the site other than waste dumped at the site was mainly household garbage. The site is now the Arboretum and is primarily park area. This facility is located approximately one-eighth of a mile northwest of the subject property in a down-gradient hydrologic position.

Acknowledging the distance and down-gradient hydrologic position of the listed landfill site in relation to the subject property as positive risk mitigation factors, it is our opinion that the potential for environmental impairment of the subject property from this source is very low.

CONCLUSIONS/RECOMMENDATIONS

Relying solely upon the available information reviewed or otherwise developed in the course of our study, the following conditions of potential environmental significance have been identified:

- Unknown/unassessed impacts (if any) from former Richfield/Hadfield retail gasoline station operations in the location of the Arboretum Court I building.
- Unknown/unassessed impacts (if any) from former Chevron retail gasoline station operations in the location of the Arboretum Court III building.
- Unknown/unassessed impacts (if any) from dry cleaner (two separate locations on subject property).

Momentarily excluding the above-noted potential concerns, it appears that the subject property is free from contamination by potentially dangerous, hazardous, or toxic substances, and that such substances as defined under the Resource Conservation and Recovery Act (RCRA-42 USC-6901, et seq.), the Federal Water Pollution Control Act (33 USC 1257, et seq.), the Clean Air Compensation and Liability Act (42 USC 2001, et seq.), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA: 42 USC 9601, et seq.), and the Dangerous Waste Regulations of the State of Washington, Chapter 173-303 WAC, have not been generated, stored, or disposed of on the property.

FORMER ON-SITE GASOLINE STATIONS

As discussed in earlier sections of the report, public records document that retail gasoline stations have historically operated upon portions of both the Arboretum Court I and Arboretum Court III properties.

For the Arboretum Court I property, we know that four (4) USTS were removed from the former Richfield gas station site, and that no visual (qualitative) conditions suggesting contamination were reportedly observed. No sampling and/or testing has apparently been conducted to quantitatively assess environmental conditions in that area. The primary tank cluster was situated in the area now occupied by the footprint of the existing building, while the dispensing pump island area was situated in what is now a parking area in front of the building.

For the Arboretum Court III property, the record reflects that five (5) USTS associated with a former Chevron gas station were removed from the site, with the primary tank cluster again positioned in an area corresponding to the footprint of the existing building. No sampling or testing was apparently conducted to assess environmental conditions at either the primary tank cluster or the pump island areas; however, limited sampling and testing was performed in the course of removal of three heating oil USTS. The results of the work associated with the heating oil tanks suggested no adverse impacts associated with them.

The condition of subsurface soil and/or groundwater cannot typically be determined through observation of surficial conditions such as afforded by the scope of a Phase 1 environmental audit, nor was such a determination envisioned in the proposal for this phase of work. Acknowledging that limitation, and without benefit of factual data regarding subsurface conditions, the strongest comment we can make at this time is that we are not aware of a particular environmental condition which has been shown to have an adverse impact upon the subject property.

If a higher degree of confidence is desired by the owner and/or lender, limited subsurface exploration as borings could be conducted to make a site specific determination. Accessible areas would include the former pump island area of the Richfield station (now parking area), and an area down-gradient from the other primary tank cluster (now parking area in front of Arboretum

Court III building). Decision-making authority in terms of implementation of these or alternative approaches clearly rests with the owner and/or lender, depending upon their individual risk tolerances.

ON-SITE DRY CLEANER ACTIVITIES

As discussed in earlier sections of the report, a dry-cleaning establishment identified as Ultra Dry Cleaners currently occupies suite 105 of the Arboretum Court III property and has reportedly done so for the past seven (7) years. Prior to that time, we are advised that they occupied Suite 104 of the Arboretum Court II building which is now occupied by Sound Mind and Body Gym. the processing unit currently in use is a closed-type machine whose inherent design would effectively prevent significant release of dry cleaning solvent (tetrachloroethylene/"PERC"). No information was disclosed in the course of our review with respect to what type of machine and/or PERC storage was in use in earlier times at the Arboretum Court II facility or upon opening at the Arboretum III facility. Records do reflect that the property has been connected to City of Seattle water and sewer services since the time of construction.

Throughout the United States, dry cleaning facilities have attracted considerable attention over the years from regulatory agencies, lending institutions, land owners and developers, etc., as a result of the release of cleaning solvents (such as perchloroethylene, stoddard solvents, etc.) to subsurface soils and/or groundwater environment. Some prominent lenders known to us have suffered extreme losses of collateral/capital as a result of problems with dry cleaners at several locations on the west coast. Environmental Associates, Inc., has investigated several such sites in the Puget Sound area, and we have successfully remediated such sites for land owners at occasionally considerable cost. given those experiences and the current uncertainty regarding details for this site, we have reasonably included a note of caution for your benefit here.

As stated earlier, assessment of subsurface soil and/or groundwater conditions cannot typically be accomplished through visual examination of surficial conditions such as afforded by the scope of an Abbreviated Environmental Audit. Acknowledging this general limitation, the strongest positive comment we can make at this time is that we are not aware of a specific contamination problem affecting site subsurface soil and/or groundwater. If a higher degree of confidence is required by the owner, and/or lender, limited subsurface soil sampling and testing could be undertaken to make a site-specific assessment. Appropriate exploration localities frequently include areas proximal to operations areas, back doors, catch basins, etc. Decision-making authority in this regard clearly lies with the owner, and/or lender, depending upon their individual risk tolerances.

LIMITATIONS

This report has been prepared for the exclusive use of The Singleton Associates and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated May 5, 1997. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

REFERENCES

GENERAL

- Bonneville Power Administration (BPA), January 1993, Radon Monitoring Results from BPA's Residential Conservation Program, Report No. 15, (with April 1993 Map).
- Environmental Protection Agency (EPA), September 1987, Radon Reference Manual EPA 520/1-87-20.
- Leisch, 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.
- Rittenhouse-Zeman and Associates, Inc., November 14, 1989. Hydrocarbon Assessment Studies, Underground Storage Tank Excavation, 3121 East Madison, Seattle, Washington. 8 pps. 1 figure.
- U.S. Geological Survey, 1983, Seattle North, Washington 1:24,000 Quadrangle. 1 sheet.
- U.S. Geological Survey, 1983, Seattle South, Washington 1:24,000 Quadrangle. 1 sheet.

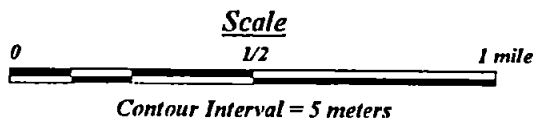
DATABASE

The following table lists the various governmental database resources reviewed for this project, the ASTM search radius, the search radius for this project, and the date that the agency produced the listing. The 1986 date for the county landfill listing should not be construed by the user or reviewer who may be unfamiliar with regulatory practices in the area as out-of-date or not conforming. It is simply the last date selected for publication by the government agency, ASTM notwithstanding.

DATABASE RESOURCE INFORMATION					
Database	Source	Search Radius (miles)		Last Update	List Date
		ASTM	EAI		
NPL	U.S. EPA	1.0	1.0	September 9, 1996	September 27, 1996
CERCLIS	U.S. EPA	0.5	1.0	September 9, 1996	September 27, 1996
CSCS	WDOE	1.0	1.0	January 7, 1997	February 21, 1997
UST	WDOE	Site & adjacent	0.5	January 3, 1997	February 26, 1997
LUST	WDOE	0.5	0.5	January 2, 1997	February 21, 1997
County Landfill	Seattle-King County	1.0	1.0	December 31, 1986	December 31, 1986
State Landfill	WDOE	1.0	1.0	June 13, 1996	June 13, 1996
RCRIS/FINDS ¹	U.S. EPA	Site & adjacent	0.5	September 9, 1996	September 26, 1996
RCRA TSD	U.S. EPA	1.0	1.0	September 9, 1996	September 26, 1996
ERNS	U.S. EPA	Site only	Site only	April 30, 1996	June 19, 1996
<p>1 - The RCRIS/FINDS listing provided by the EPA Region X includes the following databases: RCRIS Large Quantity Generators; RCRIS Small Quantity Generator, Permit Compliance System (PCS); Airs Facility System (AIRS/AFS); Section Seven Tracking System (SSTS); National Compliance Database (NCDB); Enforcement Docket System (DOCKET); Contractor Listing (CONTR LIST); Criminal Docket (CRIM DOCKE); Federal Facility Information System (FFIS); Chemicals in Commerce Information System (CICIS); State Systems (STATE); PCB Activity Handler Activity Data System (PADS); Toxic Chemical Release Inventory System (TRIS), and; Dunn & Bradstreet (DUNS).</p>					



- ▲ Location of WDOE Listed Underground Storage Tank
- ⊙ Location of WDOE Listed Leaking Underground Storage Tank
- Probable Direction of Shallow-Seated Groundwater Flow



(Source: U.S. Geological Survey, Seattle North and South, Washington Topographic Map, 1983)



ENVIRONMENTAL ASSOCIATES, INC.

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

VICINITY MAP

Arboretum Court
3121, 3130 and 3131 East Madison Street
Seattle, Washington

Job Number:
JN 7160

Date:
May 1997

Plate:
1



Phase I and III (South side of East Madison Street)



Phase II (North side of East Madison Street)



**ENVIRONMENTAL
ASSOCIATES, INC.**

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

SITE PHOTOGRAPHS

Arboretum Court
3121, 3130 and 3131 East Madison Street
Seattle, Washington

Job Number:

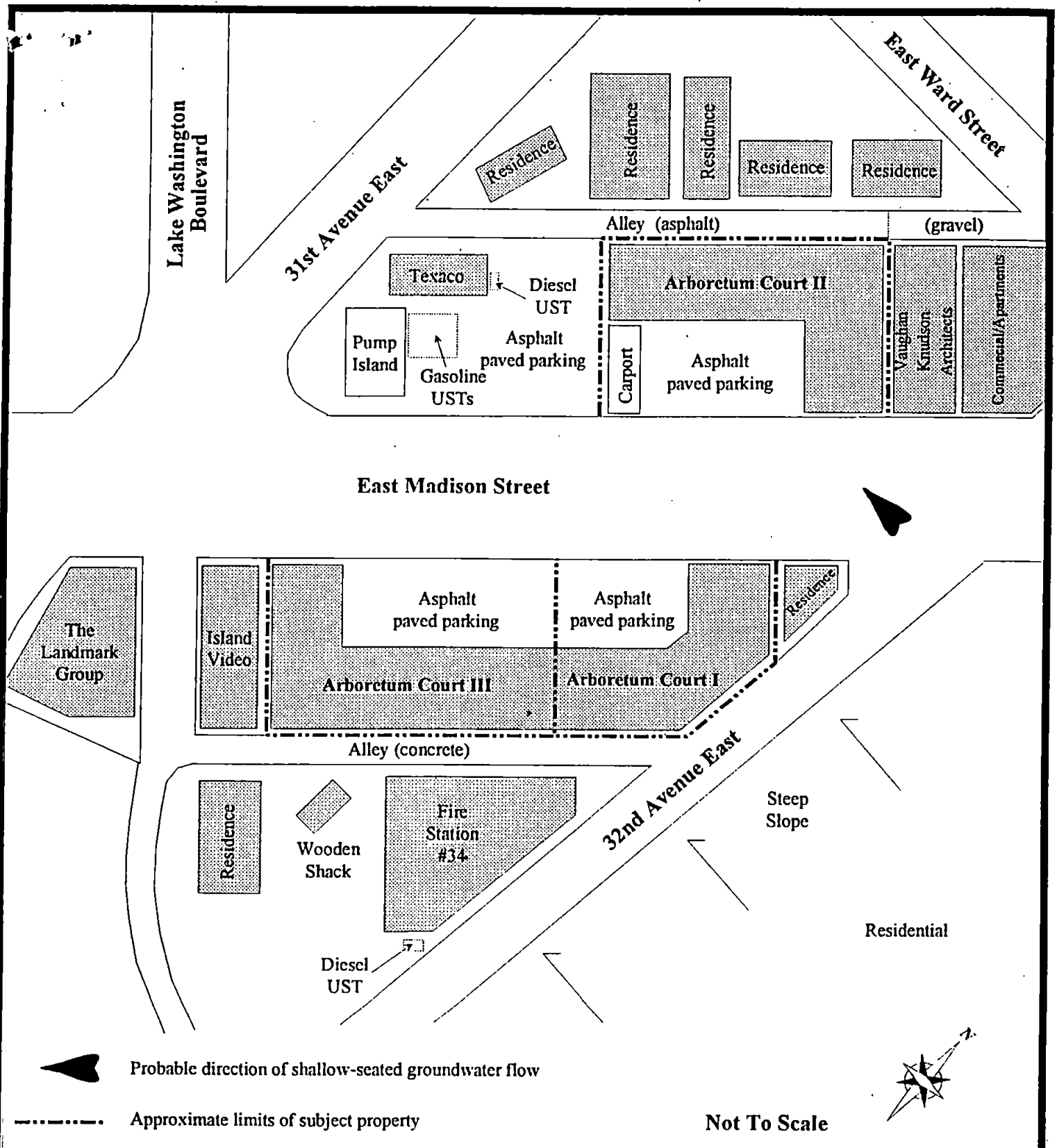
JN 7160

Date:

May 1997

Plate:

2



ENVIRONMENTAL ASSOCIATES, INC.

2122 - 112th Avenue N.E., Ste. B-100
Bellevue, Washington 98004

SITE PLAN

Arboretum Court
3121, 3130 and 3131 East Madison Street
Seattle, Washington

Job Number:

JN 7160

Date:

May 1997

Plate:

3

APPENDIX A

AHERA Certification Documents

Certificate of Training

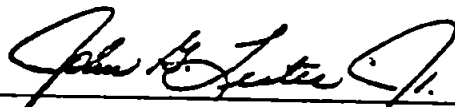
J&J Associates is pleased to certify that

Don W. Spencer

has attended and successfully completed the
AHERA MANAGEMENT PLANNER REFRESHER

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 8th day of April, 1997
at Seattle, Washington

Valid through April 8, 1998


COURSE INSTRUCTOR


TRAINING DIRECTOR

J&J970408-MPR-03

ACCREDITATION NO.

J&J ASSOCIATES
550 NW Fairwood Way
Bremerton, Washington 98311
(360) 731-6015

Certificate of Training

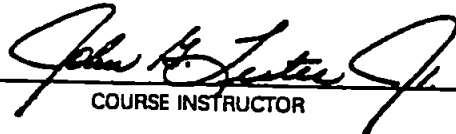
J&J Associates is pleased to certify that

Don W. Spencer

has attended and successfully completed the
AHERA BUILDING INSPECTOR REFRESHER

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 8th day of April, 1997
at Seattle, Washington

Valid through April 8, 1998


COURSE INSTRUCTOR


TRAINING DIRECTOR

J&J970408-BIR-03

ACCREDITATION NO.

J&J ASSOCIATES
550 NW Fairwood Way
Bremerton, Washington 98311
(360) 731-6015

Certificate of Training

J&J Associates is pleased to certify that

William H. Strait

has attended and successfully completed the

AHERA BUILDING INSPECTOR REFRESHER

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 17th day of October, 1996
at Bellevue, Washington

Valid through October 17, 1997

Paul W. Jackson
COURSE INSTRUCTOR

John H. Lutz Jr.
TRAINING DIRECTOR

J&J961017-BIR-05

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