# Groundwater Monitoring Well Installation and Monitoring Proposal (March 13, 2007) – 2753 Utah Avenue South

# ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300 Bellevue, Washington 98004 (425) 455-9025 Office (888) 453-5394 Toll Free (425) 455-2316 Fax

March 13, 2007

PR-26317-2Arev.1

Mr. Kevin Daniels
First & Utah Street Associates, LLC
2401 Utah Avenue South, Suite 305
Seattle, Washington 98134

PROPOSAL:

Groundwater Monitoring Well Installation and Monitoring

Home Depot / Former Sears Auto Center

2753 Utah Avenue South Seattle, Washington

Dear Mr. Daniels:

In response to your request, we are pleased to forward this proposal to provide environmental consulting services for the above referenced project.

### STATEMENT OF UNDERSTANDING

In our (EAI's) December 11, 2006-dated letter titled "Technical Support Services", we summarized our review of earlier studies by other workers related to the removal of ten (10) underground storage tanks (USTs) at the above-referenced site by Alton Geoscience, Inc. (AGI) in 1992, along with subsequent soil remedation activities performed by AGI.

The Home Depot / Former Sears Auto Center site remains on WDOE's "Leaking Underground Storage Tank" (LUST) listing with status of "cleanup started" as of June 1, 1995.

You advised EAI that this site was submitted for review by the WDOE under the voluntary cleanup program several years ago, and that the WDOE did not issue an "no further action" (NFA) determination as a "pocket" of contaminated soil remained in place beneath the existing Home Depot building. This WDOE correspondence was not found on-file at the Northwest Regional Office during EAI's recent file review. The WDOE opined in a letter dated February 18, 1993 that groundwater monitoring wells should be installed and sampled at this site. You advised us that no groundwater monitoring has been conducted at this site to date.



Associate Offices: Oregon / San Francisco Bay Area

Following discussions with you during a meeting on November 6, 2006, it is our understanding that at this time you would like to proceed with groundwater monitoring well installation and periodic sampling as the WDOE recommended in their February 18, 1993-dated letter.

Environmental Associates, Inc. (EAI), will provide necessary technical expertise, sampling and laboratory services, and other services which may be required to address your stated interests. Our firm as well, as various members of our environmental staff who may be assigned to the project, are registered with the Washington Department of Ecology to provide site assessment services associated with this type of work.

## SCORE OF WORK

The following paragraphs provide a brief discussion of the various technical tasks proposed to address your interests.

### Task 1 - Drilling and Sampling

Under Task 1, we (EAI) propose to drill a total of three (3) soil borings with construction of groundwater monitoring wells in each of those borings. The approximate proposed soil boring / monitoring well locations are depicted schematically as MW-1, MW-2, and MW-3 on the "site plan" attached herewith.

The sampling plan envisioned for this phase of work would include sampling of groundwater from the three (3) proposed monitoring wells located in accessible <u>exterior</u> areas of the property proximal to the existing Home Depot building (near AGI's soil remediation area), in an effort to evaluate the environmental quality of groundwater in the vicinity of the former UST nest.

Equipment planned to be employed for advancing the borings/wells will be a Strataprobe hydraulic punch drilling rig. The planned maximum depth for the borings will be approximately 12 feet below the ground surface. The sampling unit will be brought into position over each selected location, and following set-up preparations, the soil samples from the proposed borings will be obtained using a split spoon stainless steel sampling device with a sample sleeve. Soil samples will then be collected in 4 foot intervals beginning at the ground surface and extending to the maximum depth explored.

Two (2) of the Strataprobe borings may require the coring of an approximately 8-inch diameter hole in concrete. Following the completion of the borings, the holes will be developed with groundwater monitoring wells with flush-grade monuments.

Permits will likely need to be obtained from the City of Seattle for access and drilling activities related to two (2) of the proposed boring/monitoring well locations (MW-1 and MW-3 shown on the attached "site plan").

### First & Utah Street Associates March 13, 2007

As an unavoidable limiting factor, the density and texture of the underlying soil materials may limit the maximum depth of exploration using the Strataprobe to shallower depths than would be possible with other more robust (and expensive) drilling methods such as hollow-stem auger drilling. If the Strataprobe unit is unable to sufficiently penetrate the subsurface, then consideration of alternative drilling methods (at additional cost), would then have to be considered.

A small portion of each soil sample will be subjected to "field screening" for volatile organic vapors using a portable organic vapor detector instrument (Photovac PID). The screening technique will consist of placing a small portion of each soil sample into a sealed plastic bag and leaving the sample for a period of several minutes to allow volatile organic compounds which might be contained within each soil sample to vaporize. A small probe attached to the detection instrument will then be inserted into the "headspace" within each plastic bag, and a measurement of the volatile organic vapors (if any are present) will be made.

During drilling, a field log will be made by the project geologist for each boring/well. Information recorded versus corresponding depth shall include soil classification (Unified Soil Classification System), color, texture, moisture content, odors (if present), seepage zones (if present), etc.

Environmental Associates, Inc., (EAI) will contact the public utility locate service to identify and mark all utilities approaching the subject site. We have also included reasonable costs for a private utility locator to identify on-site utility lines. However, it should be understood that utilities constructed of non-metallic materials such as PVC and cement pipe (common for sewers and some water lines) may not be identifiable by either locator. The locations of such utilities must be disclosed by the client to EAI prior to commencement of the work. EAI understandably accepts no liability, active or passive, for damage to on-site utilities not clearly marked and/or identified to us by the client or the utility locators.

### Monitoring Well Construction/Groundwater Sampling

Permanent groundwater monitoring wells are planned for each of the three (3) proposed borings. Following drilling of the borings, one or two-inch diameter PVC well casings with 0.010-inch slots will be installed at each of those three (3) boring locations to the total depth of the boring. A blank riser casing will be used in the upper sections of the well depending on conditions encountered.

The well screen will be positioned so as to span the maximum and minimum range of the anticipated seasonal groundwater fluctuation, thus facilitating representative sampling of water at any time during the year. Design and construction methods will conform to requirements and specifications outlined in revisions of WAC 173-160 for "resource protection wells" in the state of Washington. The annulus of the well casing will be sand packed two to three feet above well screens; a bentonite seal will be placed above the sand and carried to within two feet of the ground surface to prevent infiltration of surface contamination along the well casing. A concrete plug will stabilize the upper two-foot section of the wells. A protective casing with provisions for locking access to the well head will be included.

Following well construction, a peristaltic pump will be used to purge each well by removing a minimum of three (3) well volumes in an effort to assure that samples obtained from the wells will be representative of ambient groundwater conditions. Following developmental purge pumping, a groundwater sample from each well will be collected. Water will be carefully pumped into preconditioned, labeled glassware furnished by the project laboratory. Samples will be stored in an iced chest on site and transported to the project laboratory in this condition. EPA-recommended sample management protocol including maintenance of chain-of-custody records for samples forms an integral part of the Environmental Associates, Inc. field sampling effort.

Additionally, EAI will sample groundwater from the three (3) proposed groundwater monitoring wells at approximately three-month intervals (quarterly) beginning at the time the wells are completed for at least three (3) more quarters (for a total of 4 quarters) in an effort to demonstrate groundwater quality stability throughout precipitation and/or groundwater seasonal variations.

### Water Table Survey

To determine relative water level elevations in each well in an effort to interpret groundwater flow direction, our field geological staff will use the following procedure:

- A self-leveling laser level will be used to determine the relative elevation of a measuring point or "MP" on the top edge of each PVC well casing to an accuracy of 0.01 foot, a standard specified for such work by the U.S. Geological Survey.
- An electronic water-level indicator will be used to sound the depth to groundwater below the MP in each well to an accuracy of 0.01 foot. By subtraction of depth to water from the elevation of the MP, the elevation of the water table surface in each well will be determined.
- Through interpolation of plotted water table elevations for each well on a scale map, approximate contours of equal elevation on the water table will be deduced. As groundwater is known to flow from areas of higher potential toward areas of lower potential along lines normal (at right angles) to such contours, the direction of flow and approximate gradient may be deduced, however such interpreted flow regimes may be influenced by tidal fluctuations in the immediate site vicinity.

#### Task 2 - Laboratory Analysis

Following developmental purging of the three (3) proposed monitoring wells, groundwater samples will be collected from each of those wells and submitted for laboratory analysis for the presence of diesel to oil-range petroleum hydrocarbons by WDOE Method NWTPH-Dx (diesel extended to heavy oil). The surplus groundwater samples will be cold archived at the project laboratory for a period of up to 30 days following completion of sampling in the event that supplemental analyses are requested.

The analytical approach described above is intended to provide a basis for comparison of groundwater quality at the site to guideline standards set by the Washington Department of Ecology (WDOE).

### Task 3 - Initial Data Analysis, Report Preparation

Upon completion of the initial field and laboratory work, our environmental staff will analyze the data and prepare a brief written report summarizing approach, methods, and findings. Conclusions and recommendations will be couched in terms of prevailing regulations including, but not necessarily limited to the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.

### Task 4 - Quarterly Groundwater Reports

Following each quarterly sampling/testing event, EAI will prepare a brief summary of laboratory testing results using a table format, including results of all previous monthly/quarterly site groundwater sampling events for comparison purposes.

Upon completion of the field and laboratory work following the 4th quarter sampling event, EAI proposes to prepare a more detailed status report summarizing the data gathered thus far, which will include a written discussion summarizing approach, methods, and findings. Any conclusions / recommendations will be couched in terms of prevailing regulations including, but not necessarily limited to the Model Toxics Control Act (MTCA), Chapter 173-340 WAC.

### **ESTIMATED COSTS**

The total costs expected for this phase of work are approximately \$11,325. This cost estimate is based upon conditions known at the writing of this proposal and is subject to revision based upon actual conditions encountered in the field.

Costs for handling, transport, and disposal of contaminated and/or uncontaminated soil, groundwater, drill cuttings, purge water, etc. (if any) which may be generated at the site are not included. Drummed drill cuttings and purge water become the property of the client. Disposal of drill cuttings and purge water can be arranged at additional cost to this proposal. Our fee for the work and the terms under which our services are offered will be in accordance with the attached Fee Schedule and General Conditions that are incorporated into this agreement. An invoice for this work will be submitted to you as our client.

Additional cost for consultation, meetings, report revisions, delays or obstruction of access, followon correspondence, regulatory liaison, laboratory analyses, etc., will be charged in accordance with the terms and conditions outlined in the attached Fee Schedule and General Conditions.

### LIABILITY

Please refer to the Limitations of Liability section of the attached Fee Schedule and General Conditions. Environmental Associates, Inc., (EAI) will contact the public utility locate service to identify and mark all utilities approaching the subject site. We have also included reasonable costs for a private utility locator to identify on-site utility lines. However, it should be understood that utilities constructed of non-metallic materials such as PVC and cement pipe (common for sewers and some water lines) may not be identifiable by either locator. The locations of such utilities must be disclosed by the client to EAI prior to commencement of the work. EAI understandably accepts no liability, active or passive, for damage to on-site utilities not clearly marked and/or identified to us by the client or the utility locators.

Completed monitoring wells become the property of the site owner who shall have full responsibility to maintain the integrity of the wells and monuments.

The full cooperation of the property owner and the site operator in providing unimpeded access to the proposed work area is paramount to performing this proposed scope of work.

If you find the scope and costs of this proposal acceptable, please indicate your authorization by signing at the appropriate location on the Fee Schedule and General Conditions (last page of proposal) and by returning one complete executed copy of the signature page only for our records.

# First & Utah Street Associates March 13, 2007

We look forward to the opportunity of providing environmental consulting services on this project. If you have any questions or if we may be of service, please do no hesitate to contact us.

Respectfully Submitted,

ENVIRONMENTAL ASSOCIATES, INC.

Chris Cass, P.G.

Environmental Geologist / Project Manager

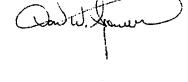
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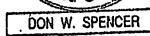
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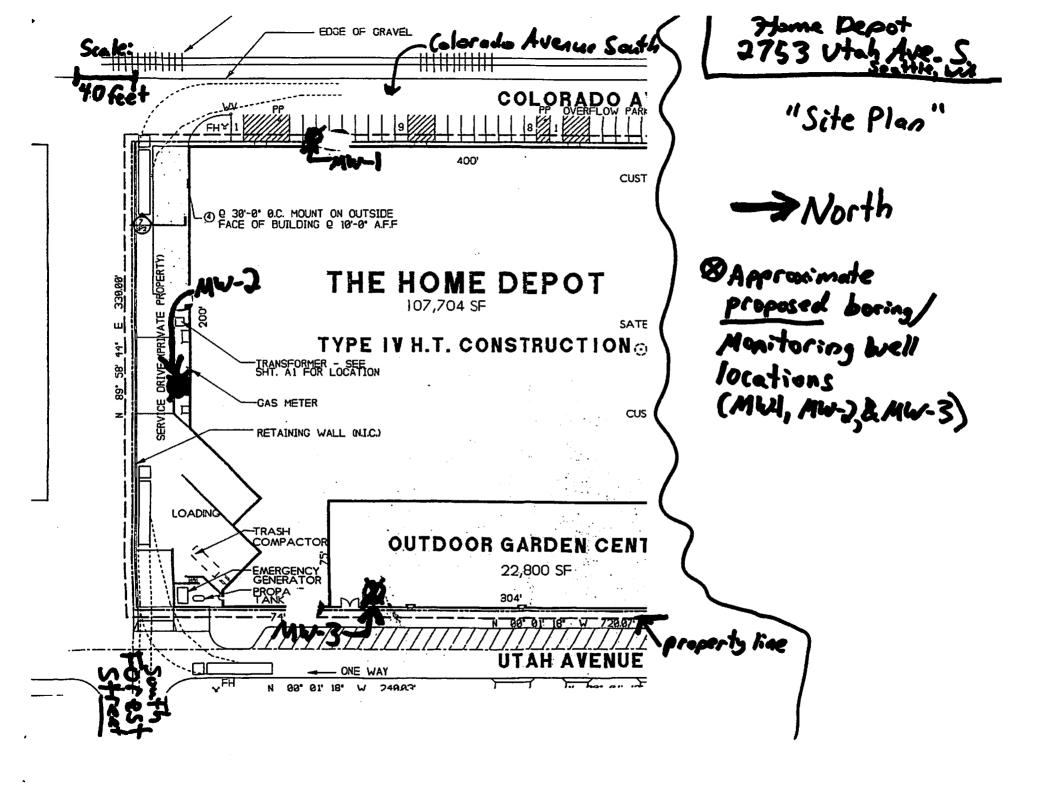


EPA-Certified Asbestos Inspector/Management Planner I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor State Certification #0878545-U7

License: 604 (Washington)
License: 11464 (Oregon)
License: 876 (California)
License: 5195 (Illinois)
License: 0327 (Mississippi)



# ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue Northeast, Suite 300 Bellevue, Washington 98004 425-455-9025 FAX 425-455-2316 FEE SCHEDULE AND GENERAL CONDITIONS EFFECTIVE JULY 2006

The compensation to Environmental Associates, Inc., for our professional services is based upon and measured by the following elements, which are computed as set forth below.

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### B. Travel, Equipment, Outside Services

- Reimbursement for subsistence paid to employees on overnight business for the client will be at a rate cost plus fifteen (15) percent.
- 2. Mileage will be charged at the accepted IRS reimbursement rate per mile for use of vehicles, portal to portal.
- Charges for services not furnished by Environmental Associates, Inc., such as drilling or analytical laboratory subcontractor services, rentals, services of outside consultants, printing, photographs, special equipment, fees, permits, or licenses required for the project will be computed at cost plus fifteen (15) percent.
- 4. Environmental Associates, Inc. maintains specialized equipment for environmental projects. Equipment charges will be per quote.
- A charge of \$35 per environmental report will be imposed beyond the initial four copies of a report. Additional copies of other documents as requested by our clients will be charged at twenty (20) cents per page.
- A surcharge of Time and One Half will be charged for work performed beyond an eight (8) hour day, at odd hours and on weekends.

### C. Environmental Work At Potentially Contaminated Sites

For services to be performed at potentially contaminated sites, protective specialized clothing, environmental life support apparatus, and documented specialized training are required by law. The following table of charges will be applicable to work at the various itemized levels of required personal protection.

Level A or B: \$ 315/per 8-hour day/per employee
Level C: \$ 175/per 8-hour day/per employee
Level D: \$ 130/per 8-hour day/per employee

Note: The prices noted above do not include cost for necessary diagnostic equipment such as Gas Chromatograph (GC), OVA, PID, Draeger tubes, etc. Use of such apparatus will necessarily be

tallored to the specific needs of the project.

from when we last worked on a project.

### D. Billing

Fees and other charges will be billed at the completion of the project or as the work progresses. The amount of each invoice shall be due upon presentation and is past due 30 days after the date of billing. A service charge of 1.5 percent per month on unpaid balance shall be charged on all accounts not paid within 30 days. Any attorney fees and court costs incurred in collecting past due accounts shall be paid by the Cilent. A lien fee of \$200 will be charged when liens are necessary. Liens will be placed if payment is not made within 90 days

Associate Offices: Oregon / San Francisco Bay Area

### E. Right of Entry

Unless otherwise agreed upon, the client will furnish right-of entry and locate all utilities on the land for Environmental Associales, Inc. to make borings, excavallons, conducts surveys, or to make other explorations. We will take reasonable precautions to limit damage to land, pavement, or utilities from use of equipment. Our fee does not include the cost of restoration of normal damage which may result from our operations, or for repair or replacement of utilities or for consequential damages.

### F. Sample Management

All non-hazardous samples of water, soil, or rock will be disposed of upon submission of our report unless otherwise directed by the Client in writing. Upon request, we will store or deliver samples for an agreed additional charge.

With respect to potentially hazardous samples, should samples obtained by our firm or provided by the Client prove to contain voin respect to potentially nazaroous samples, should samples obtained by our firm or provided by the Client prove to contain potentially dangerous or hazardous substances, Environmental Associates, Inc shall at the Client's expense (1) return the samples to the Client, or (2) have the samples transported in a lawful manner to a location designated by the Client for final disposal. Such transport shall be performed using a manifest signed by the Client as generator. Client shall pay associated costs of storage, transport, and disposal of such samples. Client acknowledges and agrees that Environmental Associates, is acting as a bailee, and therefore at no time does Environmental Associates Inc. assume title to the samples. For samples stored by Environmental Associates, Inc. for a period in excess of 30 days. Client agrees to pay an additional agreed samples stored by Environmental Associates, Inc. for a period in excess of 30 days, Client agrees to pay an additional agreed charge.

## G. Unforseen Conditions or Hazardous Substances

If unforseen conditions or hazardous substances are encountered during the performance of the services described by the proposal, and which in our judgement could significantly affect the scope of service, Environmental Associates, Inc. will notify the Client as soon as possible.

Environmental Associates, Inc. and the Client agree that detection of unforseen conditions shall constitute a changed condition mandaling negolialion of the scope of work. It is further agreed that should it be necessary for Environmental Associates, Inc. mandating negotiation of the scope of work. It is further agreed that should it be necessary for Environmental Associates, Inc. to implement immediate measures to protect the health and safety of project personnel or the public, the Client shall compensate Environmental Associates, Inc. for additional costs associated with such necessary action. To the fullest extent permitted by the law, the Client shall indemnify and hold Environmental Associates, Inc., its employees, subcontractors, and agents harmless from all liability for claims resulting from Environmental Associates, Inc. 's services. Client agrees to defend Environmental Associates, Inc. from and against all claims and liabilities including those arising from claims of third parties resulting from Environmental Associates, Inc. from and against all claims and liabilities including those arising from claims of third parties resulting from Environmental Associates, Inc. services under this agreement.

## H. Limitations of Liability

As applied to this hazardous materials project, it is possible that the concept of joint and several liability could be construed to make the consultant partly or wholly responsible for damages created directly or indirectly by the hazardous materials. Client agrees that it would be unfair for the consultant to be exposed to such action, because the consultant had nothing whatsoever agrees that it would be difficult for the consultant to be exposed to such action, decades the consultant had nothing whatsoever to do with the creation of the hazardous condition. Accordingly, the Client waives any claim against the consultant, and agrees to defend, indemnify, and hold the consultant harmless from any claim or liability for injury or loss arising from application of the hazardous condition. a joint or several liability concept that would in any manner hold or seek to hold the consultant responsible for creating a hazardous materials condition or permitting one to exist. The Client agrees to compensate the consultant for any time spent and expenses incurred by the consultant in defense of any such claim, with such compensation based upon the consultant's prevailing fee schedule and expense reimbursement policy.

### I. Warranty and Dispute Resolution

Environmental Associates, Inc. warrants that our environmental consulting services are performed with that degree of care and skill exercised under similar conditions by other members of our profession practicing in the area. No other warranty, expressed or implied, is made or intended by this proposal or though written or oral reports of the findings to be made. Environmental Associates, Inc.'s liability for all actions, omissions, or negligence, whether active or passive, shall not exceed our fees for the project.

In the event the Client makes a claim against Environmental Associates, Inc., for any alleged error, omission or other act arising out of the performance of our professional services, and the Client fails to prove such a claim, the Client shall pay all expenses incurred in defending such a claim, including but not limited to attorney's fees, and time devoted by Environmental

expenses incurred in defending such a claim, including but not limited against the claim.  Associates, Inc. personnel at the current billing rates in defending against the claim.								
I hereby agree to	these freely negoliated terms and accept the above of PR-26317-2Arev.	condillons and scope of the attached:  Date March 13, 2007						
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