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ENVIRONMENTAL
CONSULTANTS

November 12, 1993

Mr. Aidan Barry
Harbor Bay Isle Associates
1141 Harbor Bay Parkway
Alameda, CA 94502

RE: Proposal for Environmental Consulting Services
Former Gun Club Property

Dear Aidan:

ACC Environmental Consultants, Inc. ("ACC") is pleased to present the attached proposal to provide additional services for the above referenced site. This proposal is based on preliminary discussions with Mr. Kevin Tinsley of Alameda County Health Care Services Agency (ACHCSA), the lead regulatory agency for this site. Mr. Rich Heitt of the Regional Water Quality Control Board (RWQCB), Mr. Gary Pischke, CEG, and upon review of the RESNA reports provided to ACC by you.

Mr. Tinsley stated that he had no conflict with ACC being the consultant for the project. We have also had discussions with Mr. Gary Pischke, who as the previous Project Manager for RESNA, has the historical knowledge of the work performed by RESNA to date. For continuity of the project as it proceeds, we have subcontracted with Mr. Pischke to provide oversight, technical review and sign off on all reports.

Prior to performing any additional work at the site, we will request a meeting with all parties involved including representatives from Harbor Bay Isle Associates, the City of Alameda, ACC and the regulatory agencies.

The intent of this proposal is to address the concerns expressed by the regulators and includes preparation of a work plan for additional assessment of the sit prior to performing any soil remediation. Once all the details have been agreed to by the agencies and the work performed, we will be able to more accurately define the remediation strategies that will be required prior to commencement of construction of the proposed RV Storage facility.

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We have a very good understanding on what is required on this project and look forward to working with you and the City of Alameda on obtaining approvals to move into the construction phase.

If you have any questions regarding this proposal, please do not hesitate to call me.

Sincerely,

Susan Bayne Churchill

Susan Bayne Churchill, REA
Principal

cc: Mr. Gary Pischke

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PROPOSAL FOR ENVIRONMENTAL CONSULTING SERVICES
FORMER GUN CLUB SITE
500 MAITLAND DRIVE
ALAMEDA, CA

November 12, 1993

BACKGROUND

The Gun Club Site consists of a 5 acre parcel of land located at the northwest corner of Maitland Drive and Harbor Bay Parkway on the Bay Farm Island portion of Alameda. The site was used as a gun shooting club from 1926 to approximately 1986. The site is currently proposed to be capped and used as a Recreational Vehicle (RV) storage and parking lot.

Previous environmental studies conducted by Kleinfelder, Inc. and RESNA Industries have determined that near surface soils contain quantities of lead, copper and polynuclear aromatic hydrocarbons (PNAs) above regulatory action levels. In addition, three groundwater monitoring wells installed at the site indicate that groundwater has been impacted by lead and copper above the established guidelines as reported in the California Plan Numerical Water Quality Objectives, established by the United States Environmental Protection Agency. The groundwater in this area is not used for drinking water purposes as the total dissolved solids concentrations, i.e. salinity levels, range from 1,200 to 4,800 parts per million (ppm). Drinking water standards are 500 ppm and therefore are not applicable to this site.

The investigations performed to date have defined the extent of soil contamination with respect to lead, copper and PNAs. The extent of groundwater that has been impacted by copper and lead has not been determined. Data from the three on-site groundwater monitoring wells indicate that groundwater gradient varies greatly.

Based on the work performed to date, there are three issues that must be addressed in order to proceed. The scope of work outlined below is ACC's understanding, based on preliminary conversations with Mr. Kevin Tinsley of Alameda County Health Care Services Agency (ACHCSA), Dr. Ravi Arulanantham, toxicologist with ACHCSA and Mr. Rich Heitt of the San Francisco Regional Water Quality Control Board (SFRWQCB) of the concerns that need to be addressed at this time. Prior to any work being performed, ACC will request a meeting with the individual regulators, ACC personnel, Harbor Bay Isle Associates representatives and the City of Alameda representative. The purpose of this meeting will be to review the work performed to date and to review in greater detail the work that will be performed to address the issues listed on the following page.

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SCOPE OF WORK

Based on our conversations with the regulators, there are three issues that need to be addressed at this time.

The first issue concerns any potential health risk that exists as a result of the lead and copper that has impacted the groundwater. To address this issue, ACHCSA will request a risk assessment be performed. The risk assessment will also determine cleanup levels for the remediation phase of the work.

The second issue that must be addressed is the groundwater. Background levels of lead in the groundwater in the area need to be determined. An explanation as to why the groundwater gradient varies to the extent it does at the site needs to be provided and a better definition of the groundwater contamination plume needs to be assessed. In addition, the ACHCSA has requested an evaluation as to whether multiple layers of fill are present. ACHCSA's concerns relate to reference to multiple fill layers made in the Phase I Environmental Site Assessment performed by Kleinfelder, Inc. ACC has not reviewed this document. The concern is that contaminated soil may be present between or below the fill layers. However, data contained in the boring logs from the monitoring wells does not support this theory. Further evaluation has been requested by ACHCSA.

The third issue is determining the location of the former shoreline with respect to the location of the source of the PNAs from the clay pigeons. This issue will also assist with determining whether multiple fill layers are present and where the fill originates.

TASK 1 - RISK ASSESSMENT

In order to evaluate any potential risk to human health and the environment due to the presence of lead and copper in the soil and groundwater, a risk assessment will be performed. The California Department of Toxics Substance Control (Cal/EPA) lead model will be used. The following tasks will be performed during the risk assessment portion of the work:

- One to two meetings with ACHCSA will be held to review all assumptions used in the risk assessment.
- Indicator substances will be identified through review of data. Data evaluation will not be performed.

- An exposure assessment will be performed. This will include a review of land use information, planning documents, etc. from this information, exposure routes will be evaluated.

- A toxicity assessment will be performed based on the toxicity data for the chemicals identified.

- Risk and cleanup levels will then be calculated.

TASK 2 - FURTHER GROUNDWATER STUDY

To address the concerns regarding the groundwater gradient fluctuations, background levels and plume definition, the following tasks will be performed:

- To evaluate what conditions exist that may be responsible for the groundwater gradient, one existing on-site well will be monitored, using a data logger over a twenty-four hour period. In addition, research will be performed to determine whether any domestic and/or industrial wells are present in the nearby residential vicinity.

- Three additional groundwater monitoring wells will be installed to better define the contaminated plume. Two wells will be located on-site and one well will be located off-site across Harbor Bay Parkway. The attached site map indicates the proposed location of these wells. These wells will also be used to determine background levels of lead, copper and PNAs in the fill material. The soil cuttings generated during the drilling of the wells will also be used to further document whether multiple fill layers are present.

TASK 3 - DETERMINATION OF THE FORMER SHORELINE

- A data search will be conducted to obtain maps that show the former shoreline location with respect to the current site usage and impacted areas.