# FAX

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**Date:** April 26, 2000

**Number of pages including cover sheet:** 7

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Project No.: 6262.000.0
Project Name: Canterbury Residential Development

**REMARKS:**

☐ Hard copy to follow ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please comment

Attached is a copy of the sampling plan for the Park. Please provide your comments by the end of business on Monday, May 8, 2000 so we can consider them prior to field activities on May 10, 2000.

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May 4, 2000
Project 6262.000.0

Mr. Hugh J. Murphy
City of Hayward Fire Department
777 B Street
Hayward, California 94541-5007

Subject: Work Plan for Phase II Investigation
Hayward Area Recreation District Property
695 Industrial Parkway
Hayward, California

Dear Mr. Murphy:

As requested by the City of Hayward, Geomatrix Consultants, Inc. (Geomatrix) has prepared this work plan to characterize soil conditions at the portion of the Hayward Area Recreation District (HARD) property to be developed as a Park. The HARD property located at 695 Industrial Parkway in Hayward, California is approximately 4.5-acres. SummerHill Homes (SummerHill) is in the process of acquiring 1.1 acres of the property for additional residential development; this portion of the property was evaluated during a separate sampling effort[1]. On HARD's behalf SummerHill will develop the remaining 3.4 acres as a park (HARD park property, Figure 1). This sampling plan addresses these 3.4 acres.

Geomatrix performed a Phase I Environmental Site Assessment[2] for the HARD park property and the adjacent Canterbury Residential Development. The results of the Phase I assessment indicate that parts of the site have been used for agricultural and residential purposes. Historic site conditions included storage of junk cars, presence of drums of probable used motor oil, and mounds of soil and household debris. Limited soil sampling along the western property boundary was performed by Earth Systems Environmental, Inc. (ESE) in 1991 at locations where surface staining was observed. Low concentrations of petroleum hydrocarbons were detected two soil samples; metals appeared to be within natural background concentrations.

1 Geomatrix Consultants, Inc., 2000, Final Soil Sampling Results – Unoccupied Residential Lots, Canterbury Residential Development, April 28.

2 Geomatrix Consultants, Inc., 2000, Phase I Environmental Site Assessment, Canterbury Residential Development and Hayward Area Recreation Department Park, Hayward, California, April 11.

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Geomatrix recommended additional soil characterization to further evaluate concentrations of chemicals in soil across the HARD park property.

## SCOPE OF WORK

The scope of work has been divided into three sections. The first section describes a soil-sampling program to evaluate soil quality at the HARD park property. The second section discusses the proposed laboratory analyses for soil samples. The third section discusses the data evaluation. Prior to performing the field investigation, Geomatrix will obtain boring permits from the Alameda County Public Works Department, and clear boring locations for underground utilities by notifying appropriate utilities through Underground Service Alert (USA).

### SOIL SAMPLING – HARD PARK PROPERTY

A grid sampling approach is proposed to provide an aerial distribution of data across the site. Eight soil borings will be advanced at the locations shown in Figure 2. Three soil samples will be collected at each boring location to characterize soil between the ground surface and approximately 10 feet bgs. We anticipate that the samples will be collected at approximately 1 to 2, 5 to 6, and 9 to 10 feet bgs to provide vertical distribution in the upper 10 feet. If indications of petroleum hydrocarbon impacts (e.g., discolored soil, odor) are observed in the field, sample depths may be adjusted.

Soil borings will be advanced using a direct-push technology rig. The borings will be continuously cored using a dual-tube sampling system. The recovered soil will be logged by a Geomatrix field geologist or engineer in accordance with the Unified Soil Classification System visual-manual procedure (ASTM D2488-90), under the direction of a geologist registered in the State of California. The recovered soil will be screened with an organic vapor monitor equipped with a photoionization detector (PID). The inner sample barrel of the dual-tube sampling system will be lined with polybutyrate tubing. The interval of recovered soil selected for chemical analysis will be cut from the polybutyrate tubing. Two separate samples at each depth interval will be collected (e.g., 1 to 1.5 feet and 1.5 to 2 feet bgs) for

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separate submittal to the two project laboratories. The ends of the sample will be covered with teflon sheets and plastic caps. The caps will be secured with silicon tape. The soil samples will be labeled and placed in a cooler with ice, pending delivery to an analytical laboratory under Geomatrix chain-of-custody. Soil sampling will be performed in accordance with Geomatrix protocols for Soil Sampling for Chemical Analysis, and Direct-Push Sampling and Destruction of Soil Borings presented in a previous work plan for the site[3].

If an intermediate sample contains concentrations of chemical(s) above a residential PRG, the deep sample will be removed from hold status and analyzed for the chemicals detected in the intermediate sample.

Soil cuttings from soil sampling activities and water from equipment cleaning will be temporarily stored on site in 55-gallon drums pending characterization for disposal. SummerHill Homes will be responsible for final disposal.

## LABORATORY ANALYSES

The top sample from each sample interval (e.g., 1 to 1.5 feet bgs) will be submitted to Friedman & Bruya in Seattle, Washington for petroleum-related analyses. These analyses will include total petroleum hydrocarbons as motor oil (TPHmo; U.S. EPA 8015M), volatile organic compounds (U.S. EPA Method 8260), polycyclic aromatic hydrocarbons (PAHs; U.S. EPA Method 8270 SIM). The bottom sample from each sample interval (e.g., 1.5 to 2 feet bgs) will be submitted to Chromalab, Inc. in Pleasanton, California for pesticides analyses (U.S. EPA Method 8081). The soil samples will be analyzed on a 10-day (standard) turn-around time. Soil samples collected from depths of approximately 9 to 10 feet bgs will be placed on hold pending results of the shallower samples.

For Quality Assurance/Quality Control purposes, the laboratory will analyze a method blank and laboratory control samples, in accordance with its quality assurance plan. Geomatrix will

[3] Geomatrix Consultants, Inc., 2000, Soil Sampling Plan, Canterbury Residential Development, Hayward, California, March 17.

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specify three site soil samples to be used by the laboratory for matrix spike/matrix spike duplicates. One will be placed on hold to be analyzed if more than 20 samples are analyzed.

## DATA EVALUATION

Upon receipt, laboratory data will be tabulated for evaluation. Data quality will be evaluated based on field and laboratory documentation and laboratory quality control samples. Sample results will be compared with residential Preliminary Remediation Goals (PRGs) established by the U.S. EPA Region 9 for the purpose of assessing potential human health risks. If residential PRGs are exceeded, further analysis of the data relevant to future use as a park will be conducted.

## REPORTING

A report presenting the data obtained during this investigation will be prepared and will include:

- a summary of the soil sampling methods;
- logs for the direct push soil borings;
- laboratory analytical reports and summary tables; and
- an evaluation of potential human health risks.

## SCHEDULE

The tentative schedule for the project is:

- Friday, May 5, grid site, locate borings, and mark site for utility clearance.
- Wednesday, May 10, perform direct push soil sampling.
- Friday, May 25, present initial analytical results.
- Thursday, June 1, submit report summarizing results, assuming results are below residential PRGs.

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Mr. Hugh Murphy
City of Hayward Fire Department
May 4, 2000
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Geomatrix appreciates this opportunity to provide services to the City of Hayward Fire Department. If you have any questions, please contact either of the undersigned.

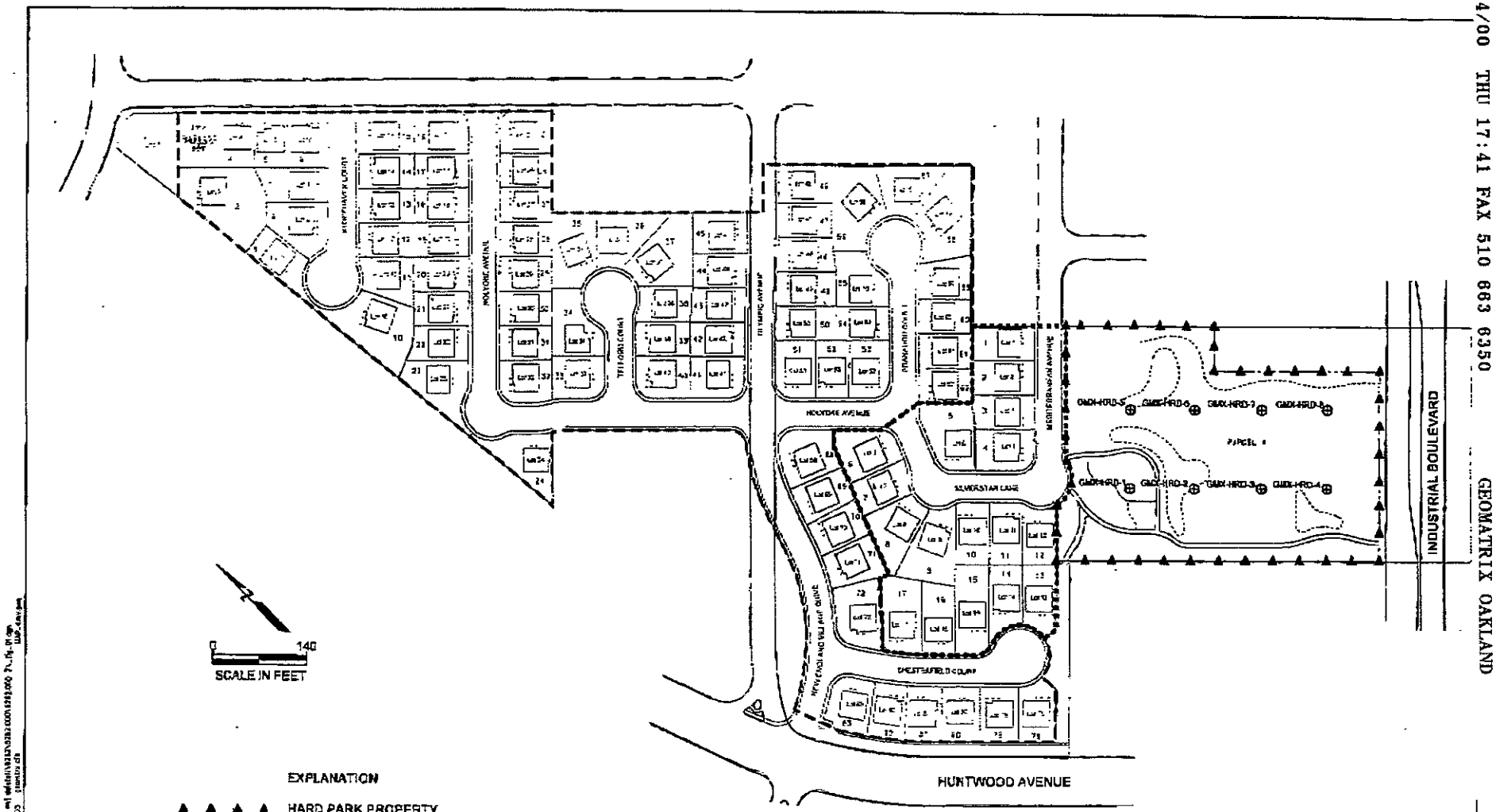
Sincerely yours,
GEOMATRIX CONSULTANTS, INC.

Thomas H. Gavigan, R.G., C.HG.
Project Hydrogeologist

Ann M. Holbrow
Senior Scientist

Attachments: Figure 1 Proposed Sampling Locations

cc: Susan Hugo – Alameda County Health Care Services
Roger Brewer – California Regional Water Quality Control Board, S.F. Bay Region
Denise Tsuji - Department of Toxic Substances Control
Kim Brandt – LFR Levine*Fricke
Mark Beskind – SummerHill Homes




**SITE PLAN SHOWING**
**PROPOSED BORING LOCATIONS**
695 Industrial Parkway (HARD Park Property)
Hayward, California

| GEOMATRIX | Project No. 6262.000 7 | Figure 1 |
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