Raney Geotechnical

September 1, 1998

Environmental Health Services
Attention: Juliet Shin
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

GEOTECHNICAL EXPLORATION WORKPLAN
PROPOSED EXTENDED STAY AMERICA PROPERTY
Marina Village Parkway near Mariner Square
Alameda, California
Raney Reference No. 1404-029.01

INTRODUCTION

In accordance with the recommendations of the Remedial Action Completion Certification for the subject property, we have prepared this brief letter outlining the scope and methods of our proposed geotechnical exploration at the subject site. Due to remaining soil and groundwater contamination at the site, we understand that it is suggested that a workplan be developed for subsurface exploration activities. In preparation of this workplan letter, we have discussed the project with you, have reviewed past environmental documentation for the property, and we have reviewed a Phase I Environmental Site Assessment prepared by our firm for the property.[1] A Plot Plan showing the limits of the property, the location of the proposed building, the locations of our proposed explorations, and other relevant information is attached as Plate 1.

BACKGROUND

The subject property was initially developed for heavy industrial use more than 60 years ago by the Bethleham Ship Building Corporation. Ship building activities began in the early 1900's and continued to about 1958. Since about 1958, the property has remained

[1] Raney Geotechnical; "Phase I Environmental Site Assessment, Proposed Extended Stay America, 2.8-Acre Marina Village Property, Alameda, California"; August 17, 1998.

generally vacant and unused. Our research indicates that the property has known petroleum hydrocarbon contamination conditions attributed to both past on-site ship building operations as well as documented off-site industrial activities. Since 1988 a number of environmental investigations have been perform for the subject site and vicinity to assess soil and groundwater contamination conditions. Chemicals detected in soils at the site include petroleum hydrocarbons characterized as weathered crude oil, total petroleum hydrocarbons as diesel (TPH-d), and motor oil/waste oil. Several inches of residual separate-phase degraded crude oil has been observed on groundwater located beneath the westerly portion of the property (Groundwater Monitoring Well LF-8, see Plate 1). The extent of crude oil appears stable, it does not appear to be migrating beyond its current location.

The westerly portion of the property supports approximately 10,000 cubic yards of stockpiled soils. Available information suggests that the soils were generated during underground storage tank excavations in 1988 and 1989 on nearby Marina Village properties. Laboratory analyses of the soils by others indicate that the stockpile materials contain TPH-d and to a lesser extent, toluene and lead.

In 1996 a *Health Risk Evaluation and Site Management Plan (HRESMP)* was developed for the subject property by Geomatrix Consultants.[2] Geomatrix concluded that the contaminant conditions remaining on the property would not pose a significant human health risk, provided that future development on the property is for commercial purposes. Geomatrix also indicated that the degraded and stable petroleum hydrocarbons in groundwater beneath the westerly portion of the property are unlikely to become mobile and migrate toward the nearby Oakland Inner Harbor.

Based on the results of investigations to date, the Alameda County Environmental Health Services (ACEHS) issued a *Remedial Action Completion Certification (RACC)* for the subject property dated February 14, 1997.[3] The RACC indicated that there is not evidence of a significant threat to human health of the environment resulting from the remaining soil and groundwater contamination at the subject site. Although free product remains on the shallow groundwater surface locally, the petroleum hydrocarbons are indicated to be highly weathered and relatively immobile. Nonetheless, the RACC indicates that it is necessary to adhere to a Site Management Plan for the property, which includes construction safety measures, buyer notification, and potential off-site disposal. The RACC indicates that the creation of "vertical conduits" on the site shall be prohibited before, during and after construction.

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[2] Geomatrix; "Health Risk Evaluation and Site Management Plan for Northwest Area, Marina Village, Alameda, California"; September 1996.

[3] Alameda County, Environmental Health Services; "Remedial Action Completion Certification, Northwest Area, located at 1150 Marina Village, Alameda, CA, 94501"; February 14, 1997; SLIC 3843.

SOIL AND GROUNDWATER CONDITIONS

Our review of available information suggests that the site is covered with nine to 15 feet of fill consisting of mixtures of silt, clay, sand, and gravel containing varying amounts of rubble and debris. The fill materials on the site are indicated to be underlain by native Bay Mud deposits. Bay Mud deposits in the vicinity generally consist of a variable thickness stratum of soft clays overlying medium dense sands, silts, and very stiff clays. The Bay Mud stratum is likely to be on the order of 20 to 60 feet thick at the project site, and is indicated to be underlain by well sorted fine to medium sands, silts and clays of the Merritt Sand Formation. Shallow groundwater occurs in the near-surface fills at depths between about five and 10 feet. The Bay Mud deposits generally act as an aquitard above the deeper Merritt Sand aquifer. Groundwater in the vicinity is indicated to have very high total dissolved solids and is not considered potable.

As described earlier in this letter, extensive environmental characterization and assessment performed at the site by others in the past have revealed the presence of contamination in soils and groundwater.

PROPOSED GEOTECHNICAL EXPLORATION

Development plans for the subject site include construction of a four story hotel on the westerly portion of the property and paved parking areas on the easterly property area. In order to develop geotechnical design recommendations for the proposed hotel structure, we propose to perform geotechnical exploration on the property consisting of two rotary wash drilled borings and two cone penetration tests. The explorations would extend to maximum depths on the order of 100 feet. We expect that explorations would extend through the Bay Mud materials and would engage Merritt Sand Formation deposits below.

In order of prevent the creation of vertical conduits which could promote contaminant migration, each of the holes resultant from geotechnical exploration would be fully grouted from the bottom to the ground surface in accord with applicable standards. Due to the nature of the known contamination, the proposed exploratory techniques, and the limited duration of the exploration activities, significant cross contamination during exploration would not be anticipated. Nonetheless, we propose to site the exploratory locations at least 100 feet away from the groundwater monitoring well indicated to contain free product (LF-8).

Our review of the existing analytical data indicate that the cuttings generated during geotechnical exploration would contain average contaminant concentrations similar to or less than those measured in the stockpiled soils on the site. Accordingly, we propose to place all cuttings within the bermed stockpile area on the site.

The reported concentrations of contaminants at the site are generally well below their respective industrial soil Preliminary Remediation Goals (PRG's) developed by the United States Environmental Protection Agency (U.S. E.P.A, 1996).; these chemicals are not expected to pose a significant health risk during exploratory field activities. Nonetheless, field personnel involved with the geotechnical exploration would be informed of the known contamination conditions, and would be provided with appropriate safety/personal protection equipment (hard hat, safety glasses, rubber gloves).

The proposed exploratory activities would be permitted through the Alameda County Flood Control Agency, Zone 7.

If you have and questions or require additional information, please contact the undersigned at (916) 371-0434.

Very truly yours,

RANEY GEOTECHNICAL

Joe Brusca
Engineering Geologist/
Environmental Coordinator

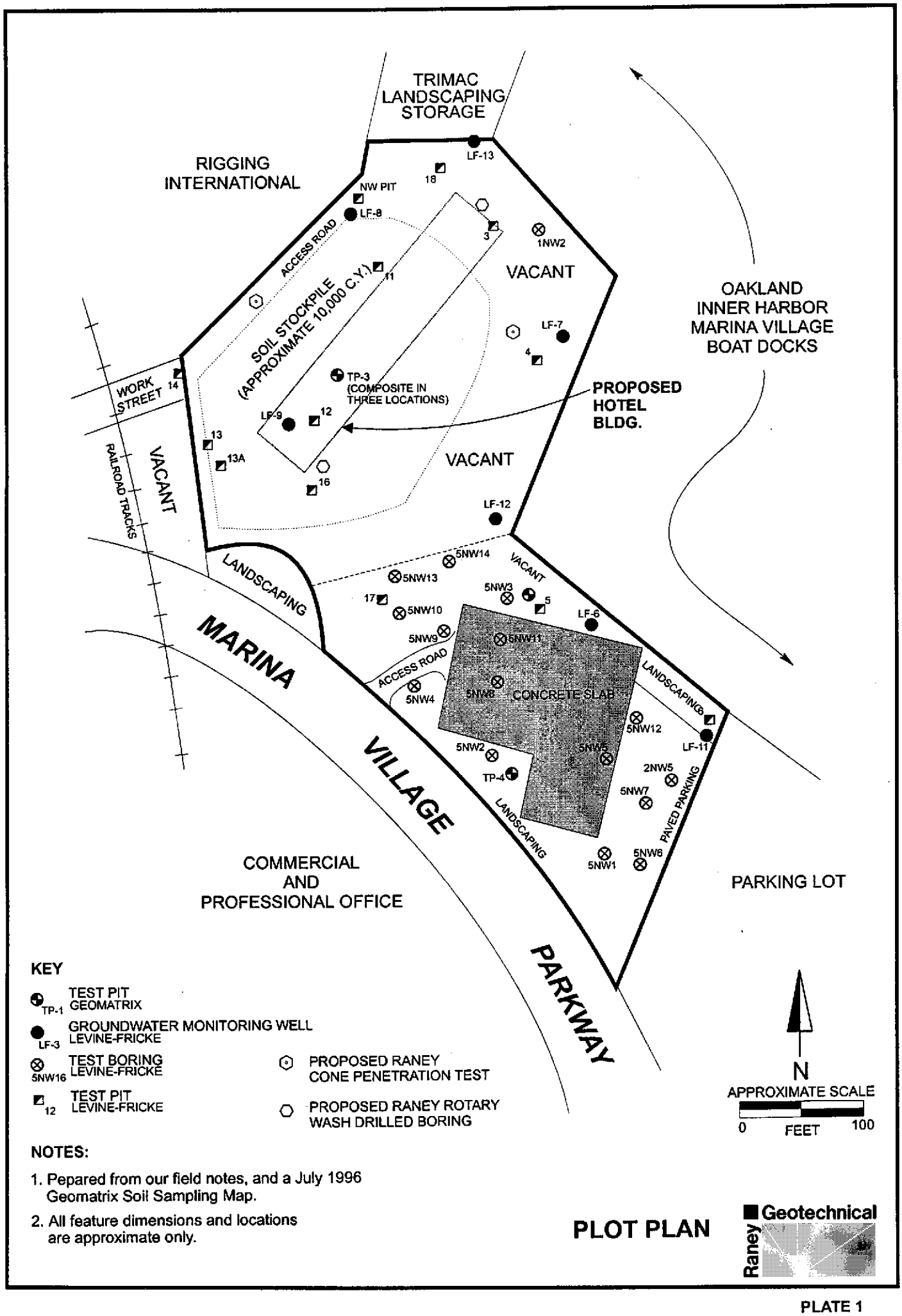
Attachment: Plate 1 – Plot Plan

(1) addressee
(1) Extended Stay America, Peter Leth
(1) Alameda County Flood Control Agency, Zone 7;
with permit application

JB/jb

PROJECT NUMBER: 404-024.01 DRAWN BY: _____ DATE: _____

PLATE NUMBER: 1 CHECKED BY: JES DATE: 8/31/98



NOTES:

1. Pepared from our field notes, and a July 1996 Geomatrix Soil Sampling Map.
2. All feature dimensions and locations are approximate only.

PLOT PLAN

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PLATE 1