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By Alameda County Environmental Health 9:38 am, Sep 19, 2017

September 14, 2017

Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Department of Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda CA 94502

Subject: Work Plan for Soil and Groundwater Investigation
Site Cleanup Program Case RO0003253 and GeoTracker Global ID T10000010519, Auto Service Garage Building, 2407 San Jose Avenue, Alameda, CA 94501

Dear Karel Detterman:

Attached please find the subject report prepared by Terraphase Engineering Inc. regarding the 2407 San Jose Avenue site in Alameda, California.

Perjury Statement

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

9/14/17

Officer or Legally Authorized Representative Date

September 14, 2017

Ms. Karel Detterman, PG
Hazardous Materials Specialist
Department of Environmental Health, Local Oversight Program
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

sent via email to karel.detterman@acgov.org

Subject: Work Plan for Additional Soil and Groundwater Investigation, Site Cleanup Program Case RO0003253 and GeoTracker Global ID T10000010519, Auto Service Garage Building, 2407 San Jose Avenue, Alameda, CA 94501

Dear Ms. Detterman:

Terraphase Engineering Inc. (Terraphase) has prepared this Work Plan for Additional Soil and Groundwater Investigation (Work Plan) on behalf of the Garfinkle Trust, (the "Client") for 2407 San Jose Avenue in Alameda, California (the Site, Figure 1). The Site is being evaluated under the State Water Resources Control Board's Low Threat Closure Policy (LTCP) as a Site Cleanup Program (SCP) case to identify and fill technical data gaps, and develop a path to case closure. Terraphase has prepared this Work Plan based on the requests by Alameda County Department of Environmental Health (ACDEH) in the letter dated July 7, 2017. The purpose of the investigation is to define the lateral and vertical extent of total petroleum hydrocarbon (TPH) impacts to soil and groundwater near previous borings B-5 and B-6, and a patched cutout and hoist located inside the building.

Site Background

The Site is a two-story brick building located at 2407 San Jose Avenue. Two addresses are located on the Site parcel (Assessor Parcel Number [APN] 70-184-15); the Site and the address 1200 Park Street. The 1200 Park Street address was formerly operated as a gasoline service station and is being evaluated separately by ACDEH as a Leaking Underground Storage Tank (LUST) case, per the July 7, 2017 ACDEH letter. The scope of work presented in this Work Plan is for the 2407 San Jose Avenue SCP case (RO0003253) only.

The Site was used from the 1920s to 1956 by Clamp-Swing Pricing Company, then from 1957 to 1982 as auto service garages, including by a Chevron-related entity, D & R Auto Service Garage and The Wrenchouse. Since 1983, the entire parcel (including both addresses) has been occupied by a Big O Tires franchisee.

A Limited Phase II Environmental Site Assessment Report (Phase II) was prepared for both addresses by Moore Twining Associates, Inc. (Moore Twining) in 2016. Two borings were advanced inside the building at the Site, B-5 and B-6 (Figure 2). Both borings were advanced to approximately 13 to 13.5 feet below

ground surface (bgs), and one soil sample and one groundwater sample were collected from each boring. Soil samples collected from borings B-5 and B-6 were analyzed for TPH as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) by United States Environmental Protection Agency (USEPA) Method 8015M, semi-volatile organic compounds (SVOCs) by USEPA Method 8270C Selective Ion Monitoring (SIM), and CAM 17 Metals by USEPA Methods 6010B/7041A. The soil sample collected from boring B-5 was also analyzed for polychlorinated biphenyls (PCBs) by USEPA Method 8082, and the soil sample collected from boring B-6 was also analyzed for volatile organic compounds (VOCs) by USEPA Method 8260B. The groundwater samples were analyzed for TPHg, TPHd, TPHmo, SVOCs, and VOCs by the same analytical methods listed above, and metals were analyzed by EPA Method 200.8.

- B-6 was located adjacent to a patched cutout of the concrete slab floor in the northern portion of the building. Groundwater was first encountered at 8.5 feet bgs. The boring log indicates that no odor was observed in the vadose zone, but a slight petroleum odor was noted beginning at 8.5 feet bgs, the depth of groundwater, and photoionization detector (PID) readings increased from 0 parts per million (ppm) in the vadose zone to between 0.5 and 0.7 ppm below the first encountered groundwater. The soil sample was collected from 10.5 feet bgs, below the first encountered groundwater. The only constituent reported in the soil samples that exceeded Environmental Screening Levels (ESLs) for shallow soil for residential usages and for leaching to groundwater promulgated by the San Francisco Bay Area Regional Water Quality Control Board (RWQCB 2016) was TPHd, reported at a concentration of 710 milligrams per kilogram (mg/kg). All other reported concentrations, including TPHmo and pyrene at concentrations of 770 mg/kg and 0.030 mg/kg, respectively, in the sample collected from boring B-6, and various metals reported in both samples, were below ESLs. The only constituents reported in the groundwater samples that exceeded Tier 1 ESLs and Maximum Contaminant Levels (MCLs) were TPHd and TPHmo in the sample collected from boring B-6. Concentrations of TPHd and TPHmo were 84,000 micrograms per liter (µg/L) and 89,000 µg/L, respectively. All other reported concentrations, including various metals reported in both grab groundwater samples and naphthalene, reported at a concentration of 0.086 µg/L in the sample collected from boring B-6, were below groundwater ESLs and MCLs.

- B-5 was located adjacent to a hydraulic hoist in the southern work bay. The location was selected to assess if a release from the hydraulic hoist had occurred and to characterize potential groundwater impacts near the hoist. Groundwater was first encountered at 8.5 feet bgs. The boring log indicates that no odor was observed and PID readings were 0 ppm at the time of drilling. The soil sample was collected from 10 feet bgs, below the first encountered groundwater. TPHg, TPHd, TPHmo, SVOCs, and PCBs were not detected above the laboratory reporting limits in the soil sample collected from boring B-5 and the constituents reported in the groundwater samples were below groundwater ESLs and MCLs. However, the samples from B-5 were not analyzed for VOCs.

Scope of Work

This Work Plan has been prepared at the request of ACDEH to further assess the extent of potential impacts to soil and groundwater in the vicinity of former borings. Specifically, the extent of TPH impacts near B-5 (the hydraulic hoist) and the potential for VOC and TPH impacts near B-6 (the concrete cutout). The following scope of work is proposed in this Work Plan:

- Advance soil borings to approximately 10 feet bgs.
- Collect soil and groundwater samples from each boring for laboratory analysis.
- Analyze samples for VOCs, TPHg, TPHd, TPHmo, and SVOCs.
- Prepare a report for submittal to ACDEH to document the investigation.

Pre-Field Activities

The pre-sampling tasks include coordination with subcontractors, preparation of a health and safety plan, a site reconnaissance to identify and mark proposed drilling locations, survey of the proposed drilling locations with a private utility locator, contacting USA North, and obtaining a soil boring permit from Alameda County Public Works Agency.

Sampling Activities

The sampling activities will involve advancing up to six soil borings to approximately 10 feet (bgs) to facilitate collection of soil and groundwater samples for laboratory analysis. Two soil samples and one groundwater sample will be collected from each location for laboratory analysis.

The sampling and analysis procedures will comply with ACDEH directives in the July 7, 2017 letter and consider the directives in the December 6, 2016 and April 7, 2017 letters. Soil samples will be collected above the water table, at lithologic changes, areas of obvious impact, and at the soil/groundwater interface. The samples will also be analyzed according to ACDEH directives as described below.

The soil borings will be completed using limited access direct push drilling equipment. Soil borings will initially be advanced inside of the building, adjacent to previous borings B-5 and B-6 (B-13 and B-14, Figure 2) and between the two locations (B-15, Figure 2). A continuous core of soil will be recovered from each boring and visual and olfactory observations of recovered soil will be made. The soil will also be screened for volatile organic compounds using a PID. These field measurements will be used to evaluate impacted soil and subsequent soil borings will be advanced laterally from the initial boring locations based on these observations. If impacted soil is observed or the soil exhibits elevated PID readings, three additional soil borings will be advanced to the west of these locations (B-16, B-17, and B-18). If field evidence of impacted soil is not observed in the initial borings B-13, B-14, and B-15, additional soil borings will not be advanced to the west.

Soil samples will be collected from the vadose zone above the first encountered groundwater from the direct push polyethylene sampling liners and samples for VOC analysis will be collected in accordance with United States Environmental Protection Agency (USEPA) field preservation Method 5035. Temporary wells, consisting of one-inch Schedule 40 PVC with 0.01-inch slotted screen, will be set to facilitate grab groundwater sample collection. After soil and groundwater samples have been collected, the borings will be backfilled in accordance with the boring permit and patched to match the surrounding surface.

The samples will be placed in laboratory-provided containers, on ice in a cooler, and transported to a California certified analytical laboratory for analysis under standard chain-of-custody protocols. The soil and groundwater samples will be analyzed for the following compounds:

- VOCs using USEPA Method 8260B, including naphthalene,
- TPHg using USEPA Method 8015M,
- TPHd and TPHmo using USEPA Method 8015M following silica gel preparation using USEPA Method 3630, and
- SVOCs using USEPA Method 8270 SIM.

A small quantity of investigation-derived waste (soil and decontamination water) will be generated during the drilling and sampling activities. This investigation-derived waste will be containerized on-site, profiled for disposal, and disposed of according to applicable regulations by a licensed waste hauler.

Report

Following receipt of the final laboratory analytical data, Terraphase will prepare a report of the investigation findings. The report will include a description of the sampling and laboratory analytical methods used, the laboratory analytical results, tabulated data with concentrations compared to relevant regulatory screening criteria, figures showing the sampling locations and results, conclusions and recommendations. Copies of all permits obtained for the investigation, boring logs, including PID readings and initial and final depths to first encountered groundwater, and laboratory analytical reports will be attached to the report. The final report will be submitted to ACDEH and to the state GeoTracker website approximately four weeks after the receipt of final laboratory analytical reports.

Schedule

Work will begin upon obtaining access from the holdover tenant, the permit from Alameda County Public Works Agency and ACDEH approval of this work plan.

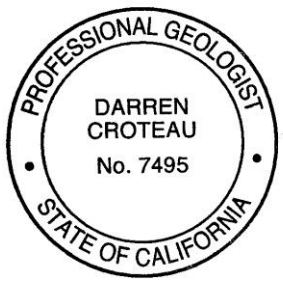
Closing

Terraphase is grateful for the opportunity to offer our services on this important project. If you have any question or comments regarding this submittal, please contact Darren Croteau at 949-377-2227 x76.

For Terraphase Engineering Inc.

Darren Croteau, PG 7495
Principal Geologist

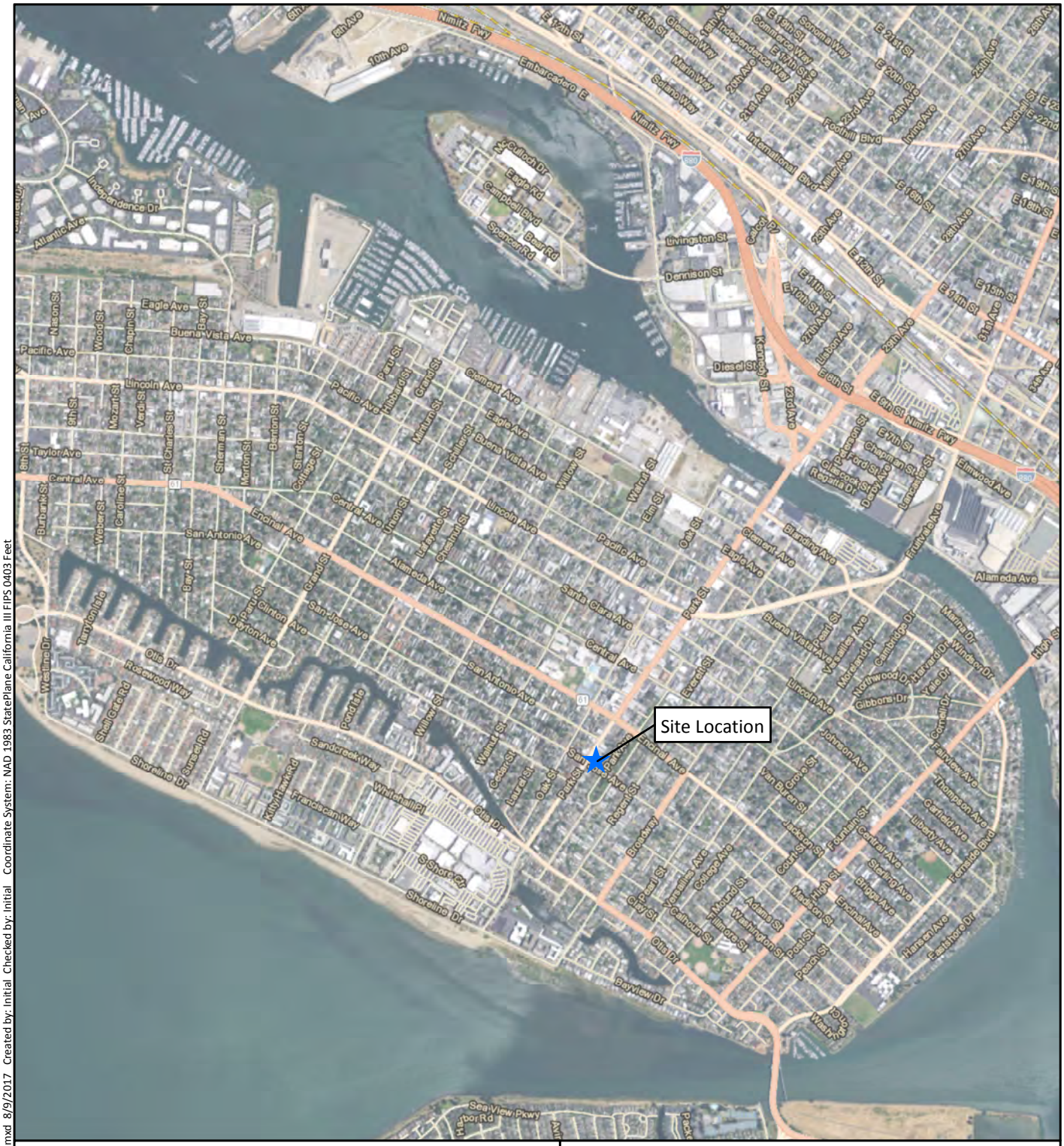
Kara Quan-Montgomery, PG 9459
Project Geologist



cc:
Mr. Jay Garfinkle, The Garfinkle Trust
Ms. Nicole Gleason, Diepenbrock Elkin Gleason, LLP

Attachments:
Figure 1 – Site Vicinity
Figure 2 – Proposed Sample Locations

FIGURES



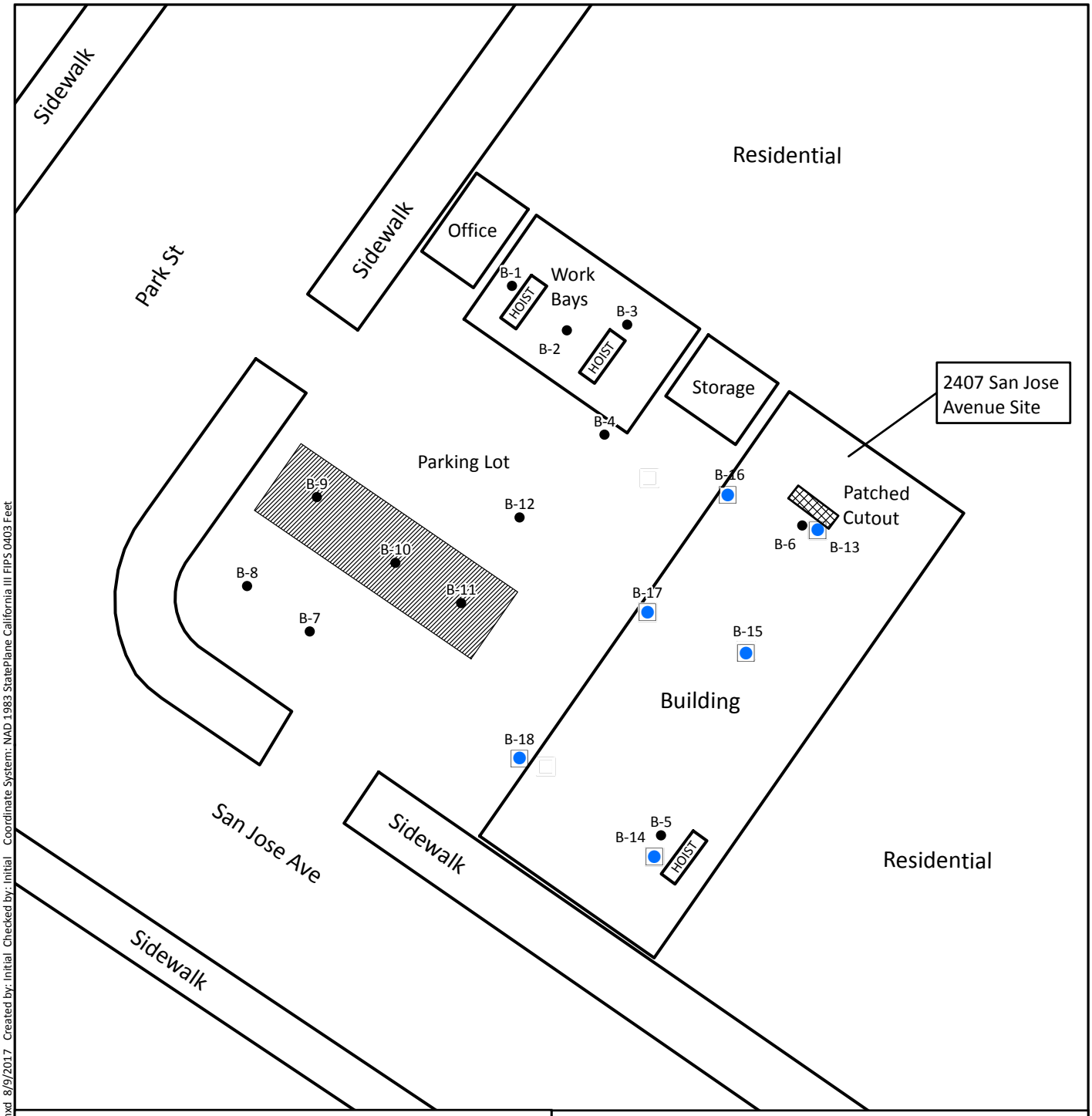
0 1,000 2,000 3,000 4,000 Feet

1 inch = 2,000 feet

N

SAFETY FIRST	CLIENT: Garfinkle Trust	**Site Vicinity**
terraphase engineering	PROJECT: 2407 San Jose Avenue Alameda, CA	
	PROJECT NUMBER: 0196.001.002	**FIGURE 1**

File: K:\GIS\Prj\0196 Garfinkle Trust\MXDs\Fig - 1 Site Vicinity.mxd 8/9/2017 Created by: initial Checked by: initial Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet



Basemap from Moore Twining 2016

0 30 60 Feet

1 inch = 30 feet

N

Legend

- Proposed Soil and Groundwater Sample Location
- Approximate Soil Boring Location (Moore Twining 2016)
- Approximate Building Outline
- Possible Dispenser Island (Concrete Slab)

SAFETY FIRST	CLIENT: Garfinkle Trust	**Proposed Sample Locations**
terraphase engineering	PROJECT: 2407 San Jose Avenue Alameda, CA	
	PROJECT NUMBER: 0196.001.002	**FIGURE 2**

File: K:\GIS\Prj\0196 Garfinkle Trust\MXDs\Fig - 2 Proposed Soil and GW.mxd 8/9/2017 Created by: Initial Checked by: Initial Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet