

BASELINE
ENVIRONMENTAL CONSULTING

TRANSMITTAL

TO: Mr. Barney Chan **DATE:** 15 September 2005
Alameda County Health Care Services Agency **PROJECT NO.:** Y0323-02
Environmental Health Services **DOC. NO.:** 00072
1131 Harbor Bay Parkway, Suite 250 **Via:** Mail: X
Alameda, CA 94502-6577 **UPS:** _____
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SUBJECT: Proposed Phase II Investigation of 751 - 785 Seventh Street, Oakland, CA

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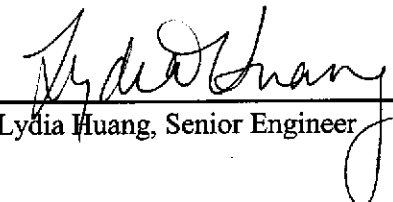
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COMMENTS:

cc: Mr. Tom McCoy, Brush Street Group (with one enclosure)
Ms. Lisa Motoyama, Resources for Community Development (with one enclosure)

Alameda County
SEP 16 2005
Environmental Health

TRANSMITTED BY:


Lydia Huang, Senior Engineer

BASELINE

ENVIRONMENTAL CONSULTING

Y0323-02
14 September 2005

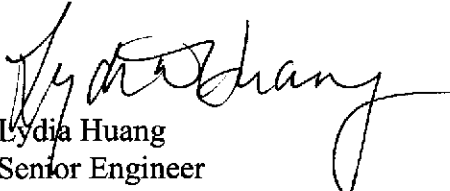
Mr. Barney Chan
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Subject: Proposed Phase II Investigation of 751 - 785 Seventh Street, Oakland,
California**

Dear Mr. Chan:

Please find attached a proposed work plan for a Phase II soil and groundwater investigation at the 751 - 785 Seventh Street site in Oakland, as requested in your letter dated 1 March 20005. This work plan also addresses comments in your letter dated 21 July 2005. Please contact us at your convenience if you have any questions. Thank you.

Sincerely,



Lydia Huang
Senior Engineer
P.E. No. 43995

LH:km

cc: Mr. Tom McCoy, Brush Street Group
Ms. Lisa Motoyama, Resources for Community Development

Alameda County
SEP 16 2005
Environmental Health

Y0323-02.00072.rev9-13.wpd-9/14/05

WORK PLAN FOR PHASE II SOIL AND GROUNDWATER INVESTIGATION

SEPTEMBER 2005

FORMER FRANCIS PLATING
751 - 785 Seventh Street
Oakland, California

Alameda County Toxics Case R00002586

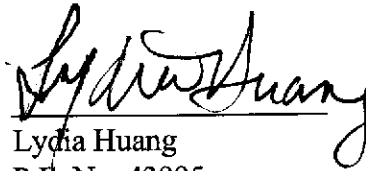
Y0323-02

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PROFESSIONAL CERTIFICATION

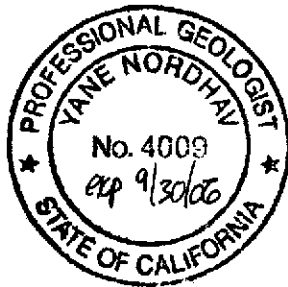
This work plan was prepared by myself or by other professionals directly under my supervision.




Lydia Huang
P.E. No. 43995

PERJURY STATEMENT

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





Yane Nordhav
Principal

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ATTACHMENT

A: Chemical Storage and Soil Sampling Locations, BASELINE 2005

FIGURES

- 1: Regional Location
- 2: Previous and Proposed Sample Locations

**WORK PLAN FOR PHASE II
SOIL AND GROUNDWATER INVESTIGATION
FORMER FRANCIS PLATING
751 - 785 Seventh Street
Oakland, California**

INTRODUCTION

Alameda County Environmental Health ("ACEH") requested a work plan for a Phase II investigation of the site located at 751-785 Seventh Street ("site") in Oakland, in a letter dated 1 March 2005 (Figure 1). On behalf of Brush Street Group, BASELINE submitted a draft work plan electronically to ACEH on 5 April 2005 that proposed a systematic sampling approach for the site. In a letter dated 21 July 2005 and follow-up email dated 25 August 2005, ACEH requested submittal of a formal work plan that uses a source-specific approach for the Phase II investigation.

The site was formerly operated as Francis Plating. The site is currently vacant, but plans have been developed to construct an entirely aboveground, multi-story building for residential use. BASELINE has prepared two reports for the site regarding historic site activities and subsurface conditions. The first report documented an investigation conducted in 2003, titled "*Soil and Groundwater Investigation, 751-785 Brush Street, Oakland, California*", dated 29 April 2003. The 2003 investigation consisted of installing two groundwater monitoring wells and drilling seven soil borings. Samples of both the fill and underlying Merritt Sands were collected from the seven borings and analyzed for a comprehensive suite of potential constituents of concern. Groundwater samples were collected from the two wells and three of the borings, and also analyzed for a wide suite of constituents. The second report presented a comprehensive compilation of site use history, including inventories of chemicals and wastes handled at the site by the former occupants; this report was titled, "*Site History and Data Summary Report, 785 7th Street, Oakland, California*", dated 10 January 2005. Information and data contained in these two reports were used to develop this proposed Phase II investigation work plan.

IDENTIFICATION OF SOURCE AREAS

All former tanks, drums, chemicals, and wastes have been removed from the site. The only remaining aboveground structures are the Plating Building enclosing a depressed vault, and a roofed-over section of the Rear Yard (Figure 2). The only depiction of the former site layout and operations on the site was presented in a report prepared by Ecology and Environment, Inc., ("E&E"), titled "*Francis Plating Assessment and Removal Report*", dated April 2000, and prepared for the U.S. Environmental Protection Agency. The report documented an emergency response action where E&E removed all tanks, drums, chemicals, and wastes that were abandoned at the site by the former owner/operator. Figures from the report were only drawn schematically and not to scale. In BASELINE's January 2005 report, we attempted to composite the information in the various figures from the E&E report into one figure to better represent the entire site. This figure is provided as Attachment A to this work plan for easy reference. However, because the source drawings by E&E were not drawn to scale, the

composite figure presented by BASELINE should also be considered schematic; the accuracy of the locations of former features shown on this figure is unknown.

Based on the depiction of the locations of tanks and chemicals on the site recorded by E&E in 2000, the primary source areas on the site were (Figure 2):

- Depressed, concrete-lined vault inside the Plating Building which contained numerous tanks of plating solutions.
- A former drum storage area located along the southern side of the Plating Building in the Rear Yard.
- A small dirt filled drainage swale in the Rear Yard.
- An area where marine transport containers and a nickel sulfate tank were formerly stored at the southern corner of the site in the Rear Yard.
- A former possible containment area adjacent to the north side of the "Frog Pond" that contained "electroless nickel" tanks in the Front Yard.
- The "Frog pond" in the Front Yard which formerly contained plating operations and was used for spill containment.
- A former water treatment area located against the southern fence in the Front Yard.
- A former paint room located adjacent to the northeast corner of the "Frog Pond".

PROPOSED PHASE II INVESTIGATION WORK PLAN

The proposed investigation consists of four components: three components investigate soil quality and the fourth component investigates groundwater quality. The first component is to investigate the soil quality under source areas as depicted by E&E from the 2000 emergency response action. The second component is to examine the soil quality around boring B-FP7, located inside the Plating Building, which was installed by BASELINE in 2003; soil samples from this boring contained polyaromatic hydrocarbons ("PAHs"), which was only identified in this one area on the site. The third component is to examine the soil quality in the surface and near-surface soils in several areas not covered by concrete and where soil is currently exposed. The fourth component is to further examine the groundwater quality at the site.

Based on the findings from the 2003 BASELINE investigation, in general, the site is covered with about 6 inches of concrete except for several patches of exposed soil around the perimeter. The lithology at the site was found to be very consistent in all the boreholes. The concrete is underlain by three to five feet (mostly 4.5 feet) of sand fill, which is further underlain by native Merritt Sands. The Merritt Sands extended below the maximum depth explored of 26.5 feet below the ground surface ("bgs").

Proposed Boring and Sample Locations

Boring Locations for Source Areas

Previous borings drilled by BASELINE and proposed borings for this Phase II investigation are shown in Figure 2. The following table lists source areas depicted by E&E in 2000, previous

BASELINE borings that appear to intercept the source areas, and proposed new borings to investigate sources areas, as needed.

Source Area	Previous BASELINE Sample Location	Proposed Sample Location
Depressed vault inside Plating Building	none	B-FP8 and B-FP9
Former drum storage area (Rear Yard)	B-FP6	B-FP10
Drainage swale (Rear Yard)	none	B-FP11
Former marine transport containers and an nickel sulfate tank (Rear Yard)	B-FP5	B-FP12
Electroless nickel containment (Front Yard)	none	B-FP13
"Frog Pond"(Front Yard)	none	B-FP14 and B-FP15
Water treatment area (Front Yard)	B-FP4	none
Paint room (Front Yard)	none	B-FP16

Nine new borings are proposed to augment soil quality data previously collected by BASELINE in 2003. The new borings will be drilled at the approximate locations shown in Figure 2.

At each of the seven proposed boring locations outside of the depressed vault inside the Plating Building, we propose to collect two samples within the fill layer only; the top sample will be collected within the first foot of soil underneath the concrete and the second sample will be collected generally between three and four feet bgs. For the two proposed borings inside the depressed vault, the floor of which is about eight feet below grade, two samples within the top five feet of soil, which is presumed to be native Merritt Sands, will be collected for analysis. The samples will be analyzed as follows:

- The two soil samples from each boring will be composited and analyzed for total Title 22 metals and hexavalent chromium. Soluble metal concentrations using the Waste Extraction Test ("WET") and/or Toxicity Characteristic Leaching Procedure ("TCLP") will be determined if the total concentrations indicate the theoretical possibility that hazardous thresholds for soluble metals may be exceeded.
- The shallowest sample from each boring will be analyzed for volatile organic compounds ("VOCs") by EPA Method 8260B.

Soil samples from borings drilled in 2003 by BASELINE were also analyzed for PAHs, polychlorinated biphenyls ("PCBs"), total petroleum hydrocarbons ("TPH") as gasoline, as diesel, and as motor oil, pH, and total cyanide. These analyses are not being proposed for the soil samples from the Phase II source-specific borings because these compounds were either not identified above laboratory reporting limits, or were identified infrequently and/or only at very low

concentrations relatively to health screening values. The only exception is the one sample from boring B-FP7, which contained PAHs and for which a focused investigation is proposed below.

Boring Locations for PAH-impacted Area

A soil sample of fill collected from 2.5 to 3.0 feet bgs in previous boring B-FP7 contained PAHs. The sample from B-FP7 collected from 5.0 to 5.5 feet bgs of the underlying Merritt Sands did not contain PAHs above laboratory reporting limits. To explore the extent of PAHs in the shallow soil near B-FP7, new borings B-FP7A, B-FP7B, and B-FP7C are proposed (Figure 2). These three borings will be advanced to at least one foot into the native Merritt Sands (about six feet bgs), and soil samples will be collected from similar depths as were collected from B-FP7. Initially, only the shallower sample of fill will be analyzed for PAHs. If PAHs are identified above laboratory reporting limits, then the deeper sample of the Merritt Sands will also be analyzed. PAHs will be analyzed by EPA Method 8270C SIM.

Surface Soil Sampling

Several small patches of exposed soils are present around three sides of the site as shown on Figure 2. Ten surface and near-surface soil samples locations are proposed. At each location, one sample will be collected of the top six inches of soil (0.0 to 0.5 feet bgs) and a second near-surface sample will be collected from 1.0 to 1.5 feet bgs. Initially, three composites of surface samples and three composites of near-surface samples will be analyzed for Title 22 metals and hexavalent chromium. The samples will be composited by area as follows: (1) SS-FP1, SS-FP2, SS-FP3, and SS-FP4; (2) SS-FP5, SS-FP6, and SS-FP7; and (3) SS-FP8, SS-FP9, and SS-FP10. Soluble metal concentrations using the WET and/or TCLP will be analyzed if the total concentrations indicate the theoretical possibility that hazardous thresholds for soluble metals may be exceeded. Analysis of these surface and near-surface samples for organic constituents will be added if indication (visual staining, odor, PID readings greater than background) of contamination by these compounds is observed during sampling.

evaluate need for duplicate sampling.

Groundwater Sampling

The groundwater table at the Site was found to be between about 12 and 18 feet bgs during the February 2003 investigation. Therefore, the only potential constituents of concern in groundwater with respect to future site occupants are VOCs. In addition, since the adjacent Shell gas station is known to have had hydrocarbon releases, TPH not originating from the site may also be present in the groundwater under the site.

*no -
✓ indicated*

A total of three groundwater samples will be collected, two from existing wells MW-FP1 and MW-FP2 (sampled once in 2003), and one grab sample from boring B-FP7A. The B-FP7A location was chosen because it is immediately adjacent to (and presumed downgradient of) a sump and the depressed vault inside the Plating Building, which represent perhaps the most potentially significant source of contamination to the subsurface on the site. It should be noted that grab groundwater samples were also collected in 2003 from borings B-FP3, B-FP4, and B-FP5. A temporary, pre-packed, one-inch PVC well will be inserted into the B-FP7A borehole to about five feet below the groundwater table to facilitate groundwater sample collection. These samples will

in situ

be analyzed for VOCs, PAHs, TPH as gasoline, and TPH as diesel and as motor oil (with silica gel cleanup).

Since there are only two groundwater monitoring wells at the site, groundwater flow direction cannot be determined. However, the Shell gas station immediately west of the site has numerous wells that are routinely monitored. When the 2003 BASELINE report was prepared, the groundwater flow direction determined by the consultant working on the Shell site was toward the southwest. We propose to obtain recent groundwater flow direction information from the ongoing monitoring activities at the Shell site, which is expected to also reflect groundwater behavior at the former Francis Plating site.

Field Procedures

A permit for the borings will be obtained from the Alameda County Public Works Agency, and a site-specific health and safety plan will be prepared to protect field personnel. A BASELINE professional geologist will direct the proposed investigation using standard industry practices for drilling, decontamination, and sample collection to ensure collection of representative samples.

Drilling and soil sample collection will be performed using a direct-push rig equipped with a dual-core sampler. Soil samples will be collected in pre-cleaned stainless steel liners. Decontamination of sampler and corer will be performed by steam cleaning, or by scrubbing in an Alconox solution followed by potable water rinse/deionized water rinse. All boreholes will be grouted to the surface upon completion of field activities.

Groundwater samples will be collected using a peristaltic pump with new disposable PVC tubing using a low-flow method. The wells will be purged until the pH, temperature, and electrical conductivity of the water have stabilized, but not less than one or more than three casing volumes. Samples will be directly filled into laboratory-prepared bottles appropriate for the proposed analyses. The bottles will be labeled and placed in a cooler with ice.

Filled stainless steel tubes retained for chemical analysis will be sealed with teflon film and end caps, labeled, and placed in a cooler with ice for all analyses except VOCs. Samples for VOC analysis will be collected in EnCore™ samplers.

All samples from the Phase II investigation will be submitted to the State-certified Curtis & Tompkins Laboratory in Berkeley for analysis.

Documentation

Following the completion of field work and receipt of analytical data from the laboratory, a report documenting the investigation will be prepared. The report will present and evaluate the data collected from both the 2003 and Phase II investigations. In addition, this report will present a human risk screening in accordance with the Environmental Screening Levels approach established by the San Francisco Bay Regional Water Quality Control Board, a feasibility study/corrective action plan (if

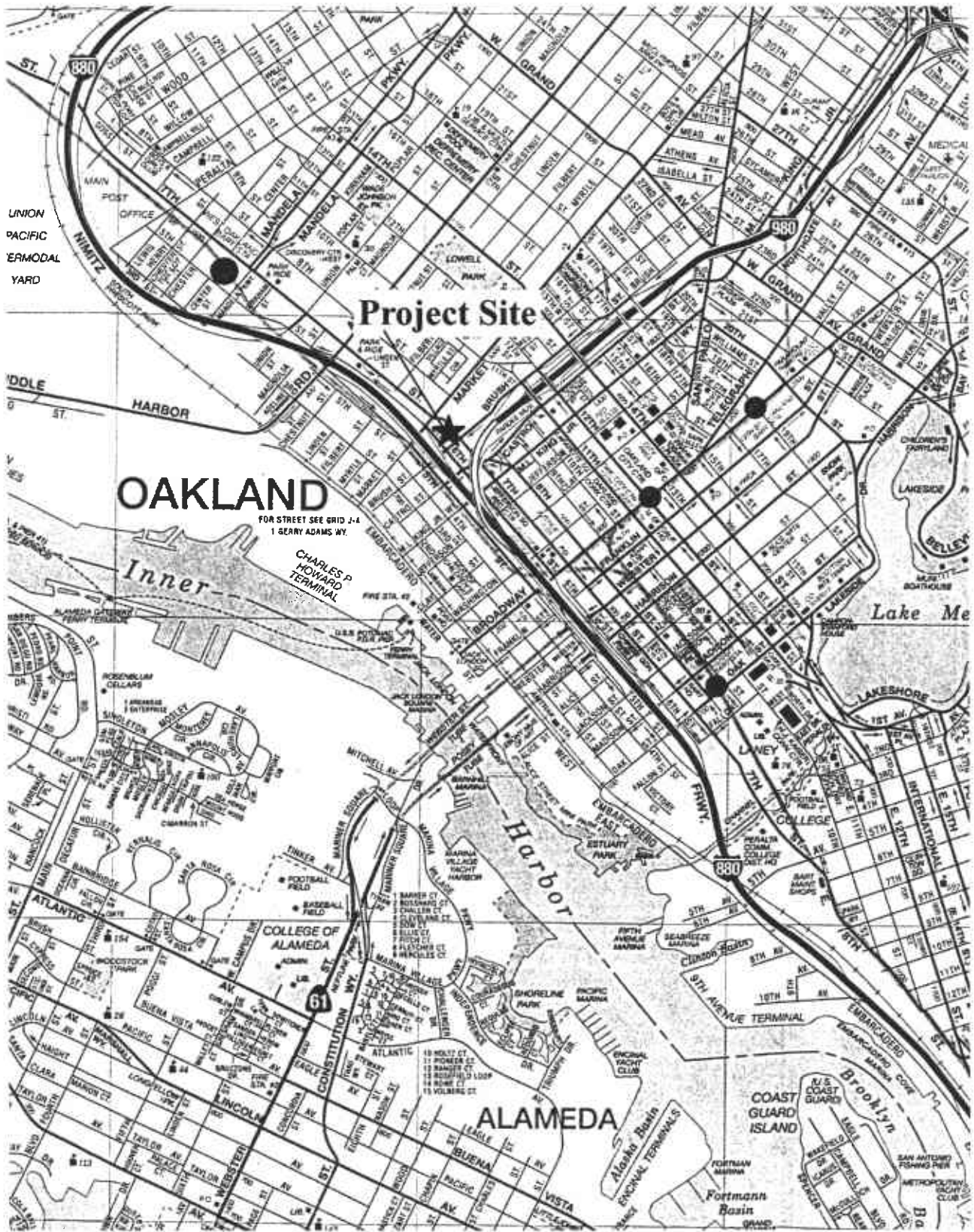
appropriate), a risk management plan for construction of the proposed development, a proposal for a deed restriction (if appropriate), and other possible mitigating actions as needed.

Schedule

Depending on driller availability, the field work should be completed within three to six weeks after this work plan has been approved by ACEH. Laboratory results will generally require an additional two weeks. The report, as described above, will be submitted to ACEH about eight weeks after the receipt of all analytical results. In total, a report would be completed about four months after work plan approval.

REGIONAL LOCATION

Figure 1



**751 - 785 7th Street
Oakland, California**



**LARGE
MAP
REMOVED**

