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By Alameda County Environmental Health 11:20 am, Jan 09, 2017



**ADDENDUM TO THE
SITE MITIGATION PLAN
DELINEATION AND EXCAVATION OF SOIL
IMPACTED WITH GASOLINE AND DIESEL
FOR THE SITE LOCATED AT:
2145 35TH AVENUE
OAKLAND, CALIFORNIA 94601**

**PREPARED FOR:
SALISBURY AVENUE ASSOCIATES LLC**

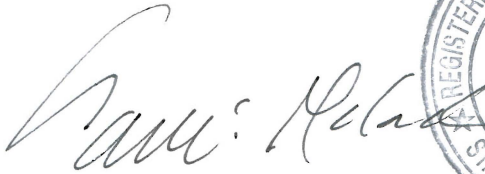
**PREPARED BY:
EAGLE ENVIRONMENTAL CONSTRUCTION (EEC)
1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124**

DECEMBER 2016

Certification of this Workplan Addendum and Perjury Statement

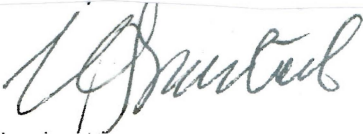
All engineering information, conclusions, and recommendations contained in this Workplan Addendum have been prepared by a California Professional Engineer.

Report Prepared by:



Sami Malaeb, P.E., QSD/QSP
Project Manager

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



Salisbury Avenue Associates LLC

Charles Thomas Shurstad

Property Owner

Managing Partner



1485 Bayshore Boulevard, Suite 374, San Francisco, CA 94124

Table of Contents

1.0	INTRODUCTION	1
2.0	WORKPLAN ADDENDUM	1
2.1	Boring Relocation.....	1
2.2	Sampling Locations	2
2.3	Laboratory Analyses.....	2
2.4	Closure of Monitoring Well MW-3.....	2
2.5	Reporting.....	3

FIGURES

FIGURE 1 SITE LOCATION

FIGURE 2 BORING LOCATIONS

1.0 INTRODUCTION

This submittal is an Addendum to the workplan for the delineation and excavation of soil impacted with gasoline and diesel at the site located at 2145 35th Avenue, Oakland, California, dated August 2016 (Figure 1).

In a meeting held on December 20, 2016, San Mateo County Environmental Health (ACEH) requested to submit this addendum to the workplan to relocate some of the proposed borings, deepen each proposed borehole to account for deeper impact with diesel and gasoline, and to add Naphthalene to the suite of analyses. This workplan addendum is a response to the ACEH request.

2.0 WORKPLAN ADDENDUM

This workplan addendum contains the following items. Details will follow:

- Relocate borings BC5, BC6, and BC7 to the indicated locations in Figure 2.
- Deepen the proposed borings from the original 8 feet below surface grade (bsg) to approximately 20 feet bsg or to obtain non-detected or non-significant concentrations of combined total petroleum hydrocarbons as Gasoline and Diesel; (TPH-G) and (TPH-D).
- Add Naphthalene to the suite of analyses to the soil samples, to be collected from approximately top 12 feet of soil.
- Collect groundwater samples from the first encountered groundwater from the relocated borings BC6 and BC7 to evaluate whether the impact to the groundwater in Monitoring Well MW-2 is resulting from the former USTs or from localized impact.
- Gauge all four monitoring wells onsite and log the depth of groundwater in each well.
- Since monitoring well MW-3 is located in the proposed excavation, MW-3 will be closed in place by pressure or tremie grouting.

2.1 Boring Relocation

The updated proposed borings will be as shown in the attached Figure 2. Borings BC1, BC2, BC3, and BC4 will be drilled as proposed in the original workplan on all four sides of the proposed excavation as confirmation for the extent of the excavation. Boring BC5 will be drilled approximately in the middle of the excavation for the purpose of soil profiling for disposal and to obtain updated profile of petroleum hydrocarbons with depth. Borings BC6 and BC7 will be drilled between the former USTs location and MW-2 to evaluate whether the impact to the groundwater in Monitoring Well MW-2 is resulting from the former USTs or from localized impact, near the former dispenser island. Also, borings BC6 and BC7 will be drilled in the location of proposed building to evaluate the combined TPH-G and TPH-D in the shallow soil to

5 feet below the foundation of the building. Direct-push Geoprobe drilling method will be used for drilling these borings. Boring log will be generated for each boring. Drilling in each boring will stop when indication of non-detect or non-significant readings and no stains and odors are obtained. From past experience at this site, drilling will not exceed 20 feet bsg.

2.2 Sampling Locations

Four soil samples will be collected from each boring. Soil samples will be collected from each boring at depth of the approximately following feet bgs: 3.5'-4.0' (shallow soil); 7.5'-8.0' (5 feet below the proposed foundation of the building); 11.0'-11.5' (soil groundwater interface); at the bottom of the boring where no indication of any further impact of petroleum hydrocarbons (evaluated by the PID, observations of staining and odors), expected to be approximately 16 to 20 feet bsg. Please note that the above sampling depths are preliminary. Sampling depths may be adjusted according to the field observations (PID readings, staining, odor. etc.).

In addition to the soil samples mentioned above, grab groundwater samples will be collected from first encountered groundwater in borings BC6 and BC7. The purpose of the groundwater sampling and analysis from these borings (BC6 and BC7) is to evaluate the impact to groundwater between MW-2 and the former USTs location and to assess whether impact of groundwater in MW-2 is resulting from the former USTs or it is a localized release near MW-2.

2.3 Laboratory Analyses

The soil and groundwater samples described above in Section 2.2 will be analyzed for the following:

- TPH-G and BTEX by using EPA Method 8015B (all collected soil and groundwater samples)
- TPH-D, motor oil, and Stoddard solvent by using Method 8015B (all collected soil and groundwater samples)
- Naphthalene by using Method 8260 (Note: since the cost is the same for analyzing for the full suite VOCs, full suite VOCs will be conducted, including BTEX, Naphthalene, fuel oxygenates, and other chlorinated volatile organics). EPA 8260 analysis for volatile organics, including Naphthalene, will be conducted on groundwater samples to be collected from borings BC6 and BC7, also, on soil samples collected from the upper 11 to 12 feet bsg only.

2.4 Closure of Monitoring Well MW-3

Prior to closing MW-3, all four wells onsite (MW-1 through MW-4) will be gauged and depth to groundwater in each well will be recorded.

Groundwater in Monitoring well MW-3 has been sampled for seven events, in both the dry and wet seasons. Analytical findings in this well showed non-detected to non-significant concentrations of all the analyzed contaminants. Last sampling event was conducted at August 10, 2016.

Since MW-3 is in the way of the planned excavation, we plan to close this well by grouting it in place. A well closure permit will be obtained from Alameda County Public Works Agency (ACPWA). Job will be scheduled for inspection with ACPWA at least 72 hours in advance. Well closure will proceed by removing the top box and pressure grouting the well with cement grout from bottom to top. The surface grade will be restored after drying the concrete.


2.5 Reporting

Following the completion of the field activities, an interim report in the form of tabulated results will be completed and emailed to ACEH for further discussion in the next meeting. Once we receive ACEH approval on this workplan addendum, we proceed with permitting and field activities.

Thank you for your cooperation. If you have any questions, please call at (925) 858-9608 or email Sami Malaeb at s.malaeb@comcast.net.

All engineering information, conclusions, and recommendations contained in this Workplan Addendum have been prepared by a California Professional Engineer.

Report Prepared by:



Sami Malaeb, P.E.

Project Manager

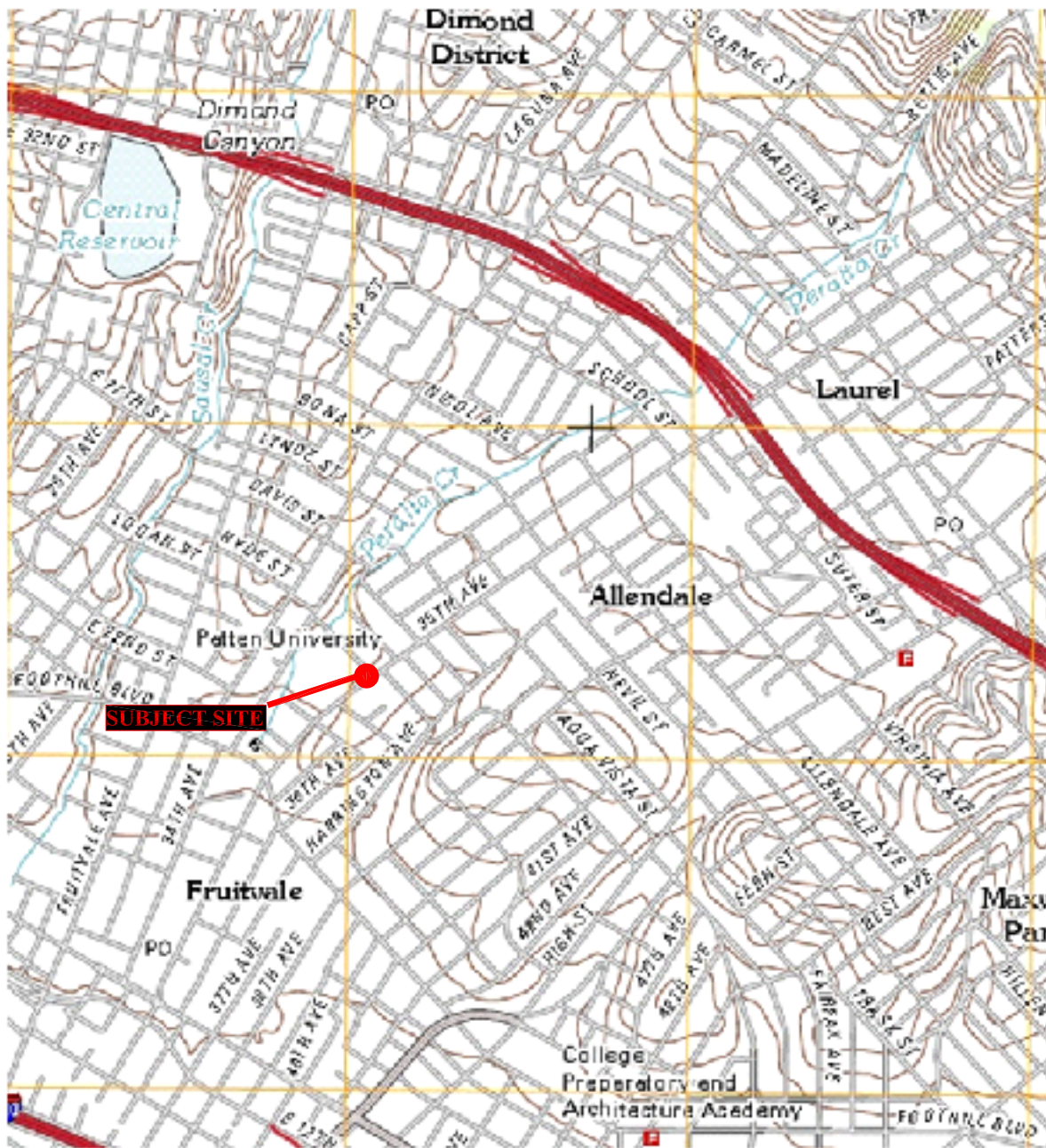
I declare under penalty of perjury, that the information and/or recommendations contained in this report and workplan are true and correct to the best of my knowledge.



Salisbury Avenue Associates LLC

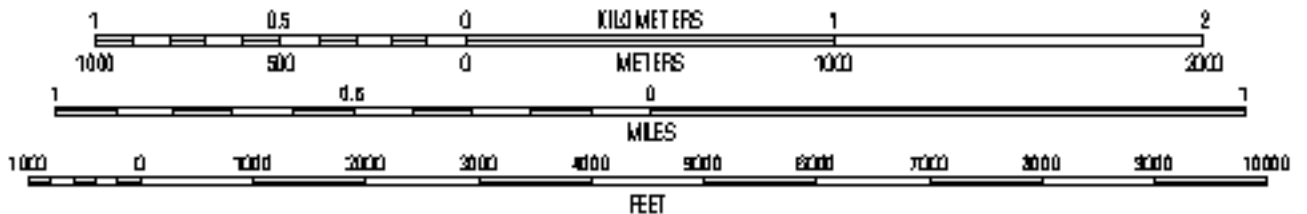
Charles Thomas Shurstad

FIGURES



SUBJECT SITE

SCALE 1:24 000



1485 BAYSHORE BOULEVARD, SUITE 374
SAN FRANCISCO, CA 94124

SITE LOCATION
2145 35TH AVENUE
OAKLAND, CA 94601

FIGURE 1

JUNE
2015

RESIDENTIAL HOUSES

SALISBURY STREET

PROPOSED CONFIRMATORY SOIL BORINGS

SIDEWALK

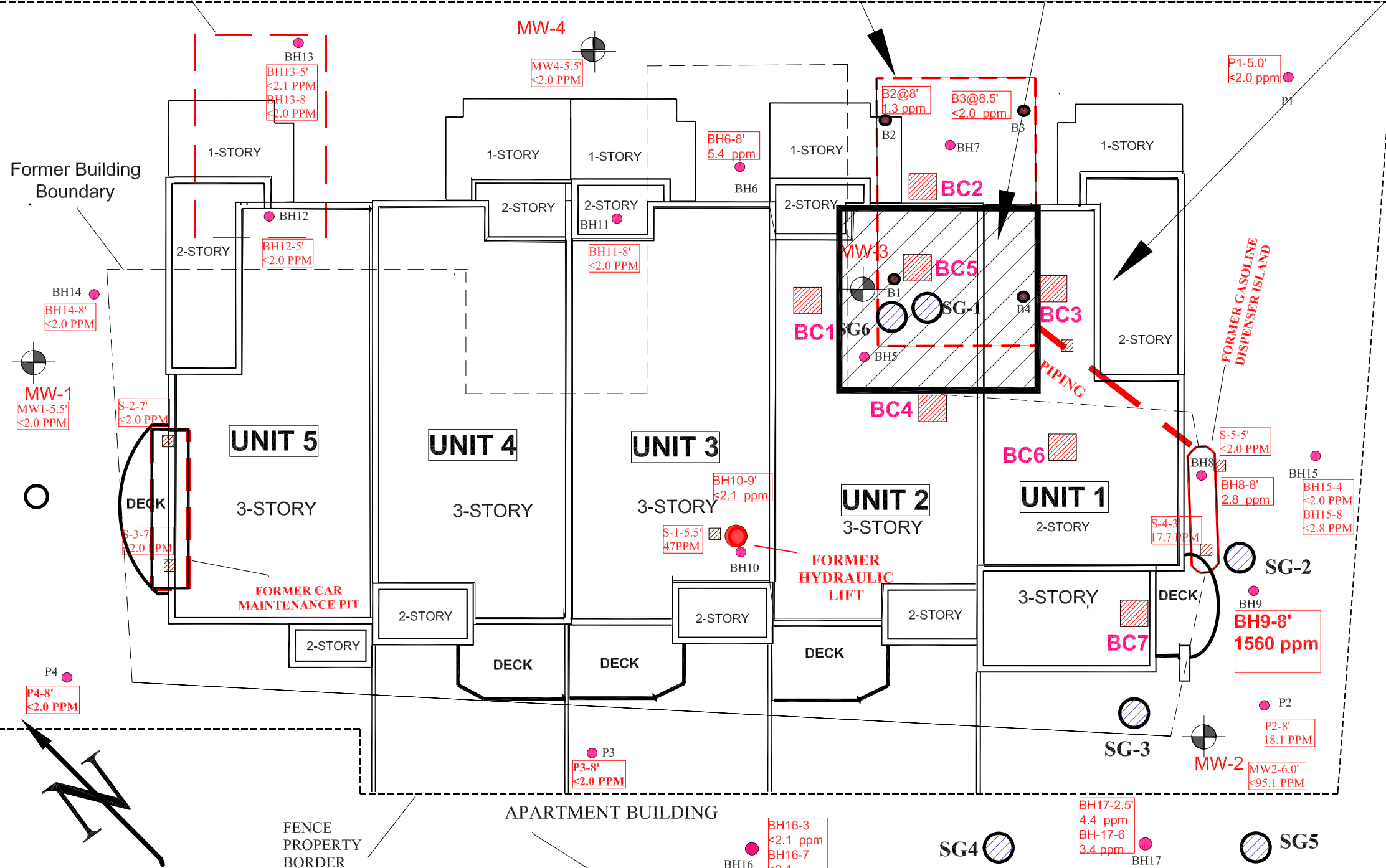
FORMER EXCAVATION OF A WASTE OIL UST (1999)

LOCATION OF FORMER TWO 500-GALLON GASOLINE USTS

PROPOSED EXCAVATION ~15'X15'X8'



SUBJECT SITE



35TH AVENUE

- FUTURE BUILDING FOUNDATIONS ARE ON THE DOUBLE LINES ALONG THE WALLS OF THE BUILDING
- Denotes Proposed Borings (BC1 through BC7)
- P3-8'** Denotes TPHG+TPH-D in Soil
Bold where TPHG + TPHD exceeds 100 ppm
- Soil Gas Sampling Locations



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PROPOSED EXCAVATION AND BORING LOCATIONS
2145 35TH AVENUE, OAKLAND, CALIFORNIA

FIGURE
DECEMBER 2016