MacArthur Boulevard Associates
10700 MacArthur Blvd., Suite 200
Oakland, CA 94605-5260
510-562-9500 / 510-562-9505 Fax

January 7, 2016

Mr. Jerry Wickham
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Transmittal, Status Report
10700 MacArthur Boulevard, Oakland, California 94605
Toxics Case No. RO0002580

Dear Mr. Wickham:
Enclosed is the *Proposed System O&M and Verification Sampling Schedule* prepared at your request for activities at 10700 MacArthur Boulevard in Oakland, California 94605.

On behalf of Macarthur Boulevard Associates, a California Limited Partnership, I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to contact Mr. Peter McIntyre of AEI Consultants at (925) 746-6000.

Sincerely,

MACARTHUR BOULEVARD ASSOCIATES
(a California limited partnership)

BY: JAY-PHARES CORPORATION
(Its Management Agent)

By: _____
John Jay, President

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

AEI Consultants
Environmental & Engineering Services
2500 Camino Diablo, Walnut Creek, CA 94597
Tel: 925.746.6000 Fax: 925.746.6099

January 12, 2016

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: **Proposed System O&M and Verification Sampling Schedule**
10700 MacArthur Boulevard
Oakland, California 94605
AEI Project No. 261829
Toxics Case No. RO0002580

Dear Mr. Wickham:

On behalf of Jay-Phares Corporation, AEI Consultants (AEI) has prepared this *Proposed System O&M and Verification Sampling Schedule* for the property located at 10700 MacArthur Boulevard in the City of Oakland, Alameda County, California ("the Site"). As described in AEI's *Interim Remediation Status Report* dated June 10, 2015 and AEI's *Status Report* dated November 23, 2015, a soil vapor extraction and treatment (SVET) system and a sub-slab depressurization (SSD) system are operating at the Site to remediate volatile organic compounds (VOCs), including tetrachloroethylene (PCE), observed in soil and soil vapor at the Site.

As discussed in the *Status Report*, a significant reduction in VOCs was observed in soil vapor following approximately 1½ years of system operation. The VOC reduction in soil vapor was discussed during a meeting on December 16, 2015 between AEI, the Alameda County Environmental Health Department ACEHD, and Jay-Phares. During the meeting, the ACEHD indicated that VOC concentrations remain which warrant continued system operation and requested a proposed schedule for system operation and maintenance (O&M), verification sampling, and reporting. This document has been prepared to provide these items.

1.0 PROPOSED O&M AND PERFORMANCE MONITORING PROGRAM

AEI is currently performing an O&M program to maintain the remediation and mitigation systems in good working order, maintain effective operational parameters, and comply with the Permit to Operate issued by the Bay Area Air Quality Management District (BAAQMD). AEI proposes the following soil vapor monitoring program to gather data to evaluate the effectiveness of the systems at mass removal and mitigating the future potential vapor intrusion conditions. Following is a summary of the proposed O&M and monitoring program.

1.1 System O&M

In accordance with the BAAQMD permit to operate and to collect system operational data, AEI performs monthly O&M Site visits. During each Site visit, AEI currently performs and will continue to perform the following:

- Record system operational data including the system runtime, airflow rates, system vacuum, the presence of water in the knock-out tank, and PID readings from ports location before, between, and after the activated carbon treatment train.
- Collect influent samples from the SVET and SSD system for laboratory analysis to estimate mass removal rates.
- Record induced vacuum readings from accessible points to document effective depressurization and induced vacuum, providing information on the effective radius of influence of the systems.

1.2 Soil Vapor Sampling

On September 28, 2015, AEI collected soil vapor samples to assess system performance. Based on the findings, it has been determined that the system has effectively reduced VOCs by several orders of magnitude. In an effort to continue to assess vapor concentrations remaining at the Site, AEI recommends additional soil vapor sampling. Soil vapor samples will be collected using similar techniques as during the previous sampling events. A peristaltic pump will be connected via clean Nylaflo™ tubing to the sample port. A tee fitting will be connected to tubing downstream from the sampling pump. Tubing will then be connected to the other two openings in the tee fitting system with one end to the photoionization detector (PID) meter or Tedlar bag, and the other end of the tee routed away from the sampler to be used as pressure relief. Once PID readings stabilized, the PID reading will be recorded and a sample will be collected by closing the pressure relief tubing, which allows air to flow into the Tedlar bag. Samples will be analyzed for VOCs using EPA Method 8260B.

1.3 Indoor Air Sampling

As determined to be necessary (Section 2.0), AEI will collect indoor air samples within the tenant spaces were soil vapor sampling points are present. The indoor air samples will be collected in general accordance with Department of Toxic Substances Control (DTSC) guidelines. The indoor air samples will be collected to determine if known CVOCs beneath the slab are impacting indoor air quality, and if so to determine a Site specific attenuation factor for concrete.

2.0 Proposed Monitoring Schedule

AEI plans to continue monthly O&M activities described above as required by the BAAQMD permit while the SVET and SSD systems are operating. Due to the significant decrease in VOC concentration observed in samples collected during the September 2015 sampling event, AEI proposes to operate the systems for an additional six months and collect an additional round of soil vapor samples. AEI will collect soil vapor samples from select locations (both the sub-slab and the 5 foot sample at each location), including SS/VM-1, SS/VM-5, SS/VM-7, and SS/VM-9, following the same procedure as presented in Section 1.2. Therefore, in March 2016 the systems

will be turned off and soil vapor samples will be collected after allowing the subsurface to equilibrate for 30 days later (April 2016).

Following sampling activities, the system will remain off pending results of the soil vapor data. Based upon the observed concentrations, AEI proposes the following two scenarios for continued SVET and SSD system operation or confirmation that the systems are no longer necessary to protect indoor air quality.

If vapor concentrations are found to be significantly higher than the September 2015 data, AEI will restart the system within 48 hours of receipt of analytical data and Scenario 1 will ensue (Section 2.1). If the vapor concentrations are found to be generally consistent with the September 2015 data, the system will remain off and Scenario 2 will ensue (Section 2.2). AEI will provide an update report to the ACEHD during May 2016 informing them of the results and the planned course of action. The scenarios are described in detail in the following two sections.

2.1 Scenario No. 1 – Elevated VOCs

For Scenario No. 1, if soil vapor sampling results continue to show elevated VOC concentrations, then AEI proposes to continue to cycle the SVET and SSD systems on six-month intervals. In this scenario, the systems will be restarted approximately 48-hours following receipt of analytical data that indicates elevated VOC concentrations in soil vapor. Upon initiating system operation, an influent sample will be collected from the SVET and SSD system after approximately 1 hour of operation and again after 24 and 72 hours of operation. The influent samples will be used to understand VOC rebound and how quickly the system reaches asymptotic levels.

After running the system for an additional 5 months, the SVET and SSD systems will be shut down again (September 2016) and after 30 days, another round of soil vapor samples will be collected and analyzed from the select locations presented above. The sample results will then be reviewed. If VOC concentrations remain elevated, that the SVET and SSD systems will be operated for another five-months and samples will be collected again. If VOC concentrations have shown sufficient decreases, then the data would be further evaluated as described under Scenario No. 2. Any changes or modifications to the schedule will be proposed in the reports.

2.2 Scenario No. 2 – Decreased CVOCs

In this scenario, VOC concentrations have shown further decreases suggesting that further operation of the SVET and SSD systems may not be necessary to protect indoor air quality. To confirm that VOC concentrations in soil vapor remain consistent and do not continue to rebound, AEI proposes the following soil vapor monitoring schedule while keeping the SVET and SSD systems shut down. Soil vapor samples will be collected from the above described selected soil vapor probes after 60 days, 90 days, and six-months of SVET and SSD system downtime. This data will be used to confirm that VOC concentrations remain low and do not rebound significantly

2.3 Cleanup Goal Assessment

It is likely that significant decreases in soil vapor will continue to be observed at the Site. To assess whether there continues to be a potential unacceptable risk to human health at the Site posed by the presence of VOCs, primarily PCE, in the subsurface, site-specific cleanup goals may need to be developed. Currently Environmental Screening Levels (ESLs) developed by the California Regional Water Quality Control Board, San Francisco Bay Region ("the Regional Water Board") are used as a general assessment of potential risk to indoor air quality. If concentrations decrease to below ESLs, no further action would be warranted. Although, the SVET and SSD systems are effective at reducing VOC concentrations in soil vapor, they may not economically reduce VOC concentrations in soil vapor to ESLs. Therefore, if deemed appropriate during the implementation of scenario number 2 to calculate site-specific cleanup levels (concentrations remain relatively low but above the ESLs), AEI will do so. To do this, AEI would collect indoor air samples concurrent with a sub-slab soil vapor sampling event. The results will be used to 1) directly evaluate indoor air quality and 2) to calculate a site-specific attenuation factor to be used to assess sub-slab soil vapor data and develop site-specific cleanup goals.

2.4 Groundwater Monitoring Schedule

Along with the O&M schedule described above, AEI proposes to continue semi-annual groundwater monitoring at the Site. VOC concentrations in groundwater currently remain generally stable and/or decreasing at the Site. Sampling is currently performed in May (first semester) and October (second semester). In accordance with the current schedule, each sampling event will include a groundwater sample collection from AMW-1, AMW-6R, AMW-9, FHS MW-10, and FHS MW-11. In addition, a groundwater sample will be collected from AMW-8 during the second semester event only.

2.5 Reporting

During performance of the proposed monitoring schedule described above, AEI proposes to prepare the following reports to document and present the results of the activities to the ACEHD, including:

- Semi-Annual Groundwater Monitoring Reports.
- Semi-Annual SVET and SSD System Operation and Monitoring Reports while operation remains within Scenario No. 1.
- Soil Vapor Sampling Reports presenting the results of the successive sampling events while under Scenario No. 2.

3.0 Report Limitations and Signatures

This report has been prepared by AEI Consultants relating to the environmental release at the property located at 10700 MacArthur Boulevard, Oakland, Alameda County, California. Material samples have been collected and analyzed, and where appropriate conclusions drawn and recommendations made based on these analyses and other observations. This report may not reflect subsurface variations that may exist between sampling points. These variations cannot be fully anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. All specified work has been performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology and performed under the direction of appropriate California registered professionals.

Please contact either of the undersigned at (925) 746-6000 if you have any questions or need any additional information.

Sincerely,

AEI Consultants

Jeremy Smith
Senior Project Manager

Peter McIntyre, PG
Executive Vice President

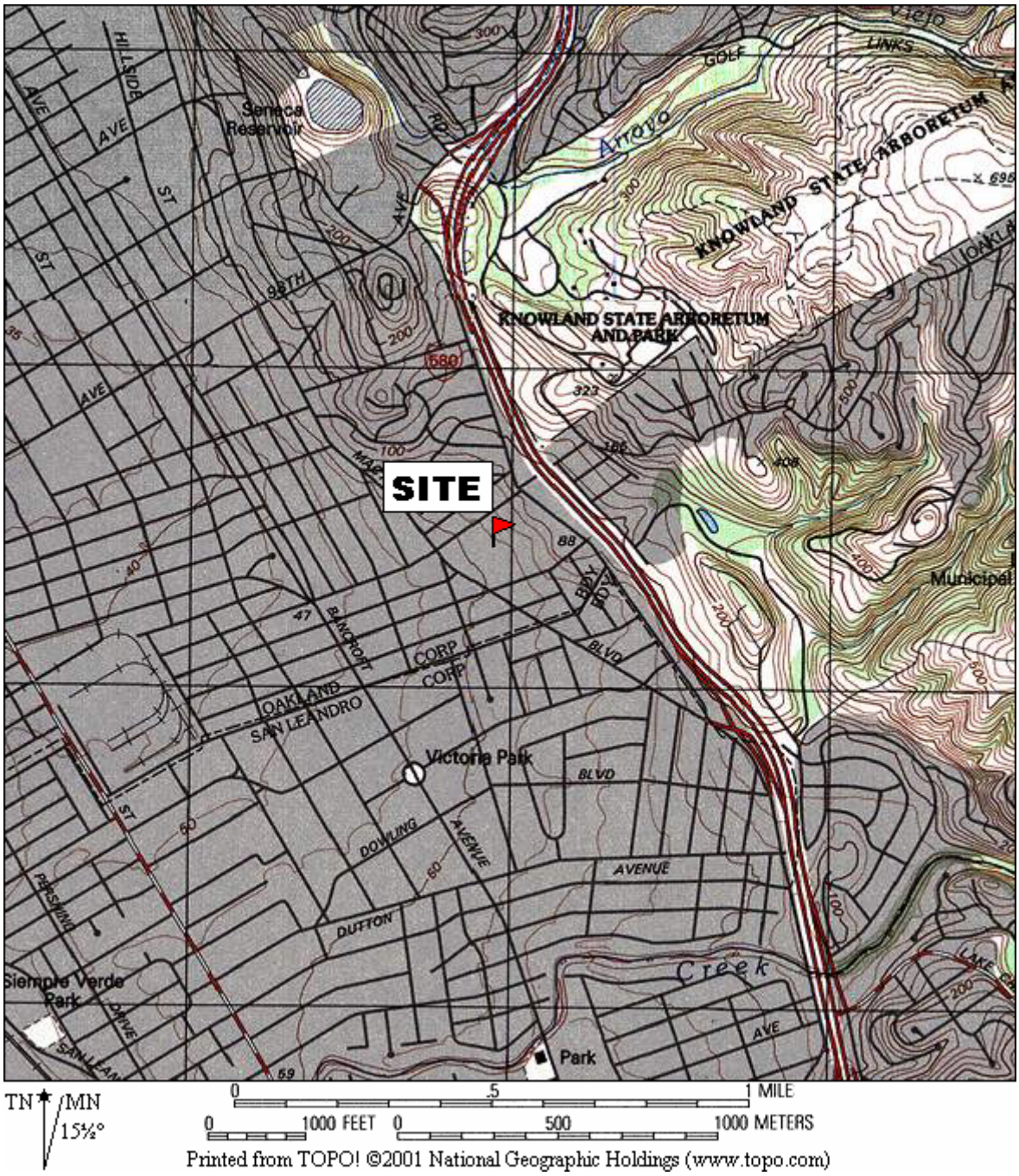
REGISTERED GEOLOGIST
PETER J. MCINTYRE
Exp 3/31/16
No 7702
STATE OF CALIFORNIA

Distribution :
Jay-Phares Corporation, Attn; John Jay, 10700 MacAurther Blvd., Oakland, California 94605
Geotracker electronic upload

FIGURES

Figure 1:	Site Location Map
Figure 2:	Extended Site Plan
Figure 3:	Site Plan
Figure 4:	System Layout
Figure 5:	Process Flow Diagram

FIGURES



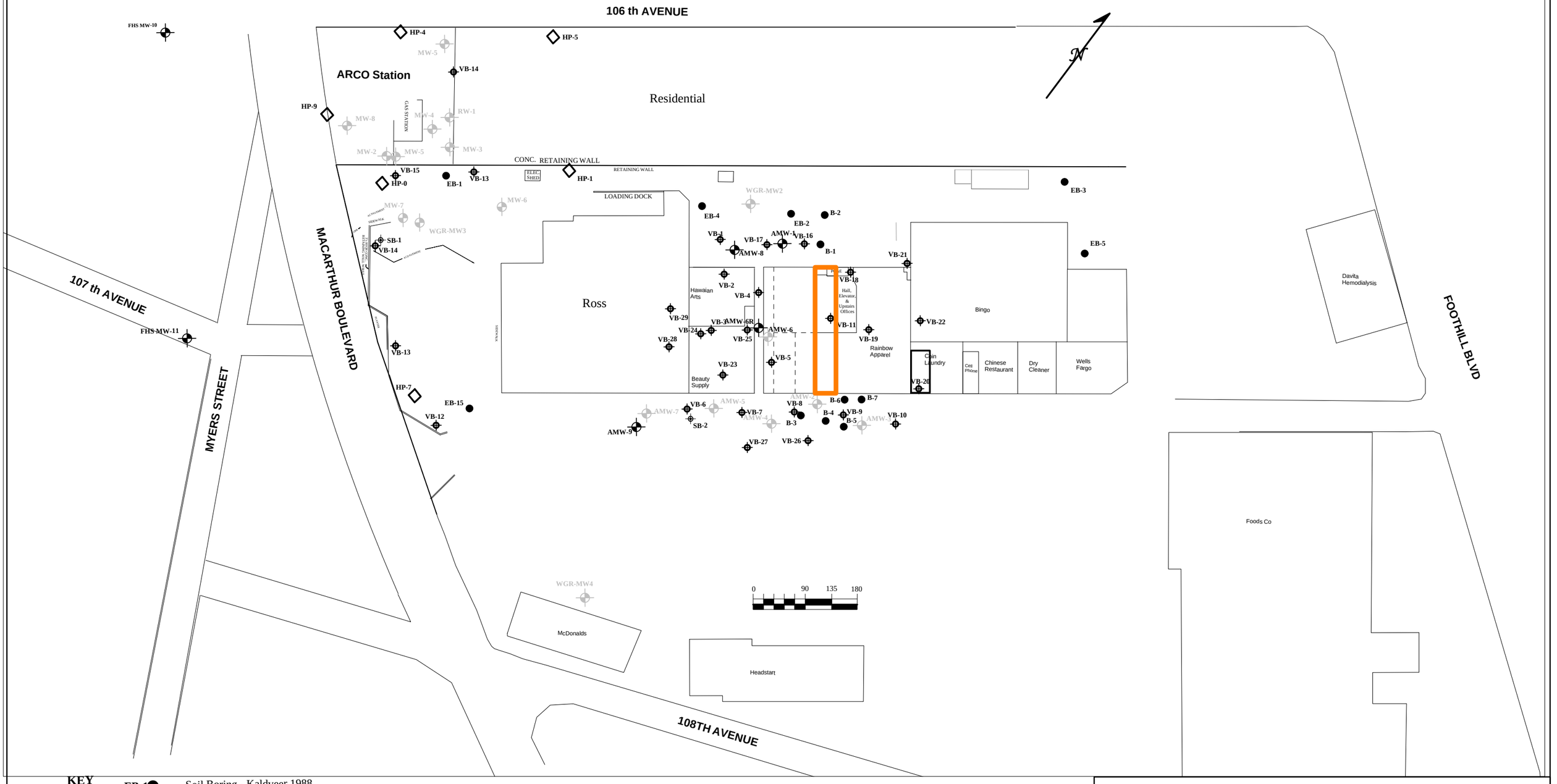
AEI CONSULTANTS

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

SITE LOCATION MAP

10700 MACARTHUR BLVD
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT NO. 261829



KEY

- EB-1 — Soil Boring - Kaldveer 1988
- B-1 — Soil Boring - Augeas 1994
- HP-8 — CPT Boring/HydroPunch Sample - PES 1997
- MW4 — Groundwater Monitoring Well
- MW4 — Abandoned Groundwater Monitoring Well
- Soil Boring - AEI 2006
- Former Dry Cleaner Location
- Soil Vapor Sample

Drafted 6/30/05 - RFF on Dirk Slooten base
Revised 05/15 by J.SMITH

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2500 CAMINO DIABLO, WALNUT CREEK, CA

EXTENDED SITE PLAN

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 2
PROJECT NO. 261829

106 th AVENUE

ARCO Station

Residential

Ross

MACARTHUR BOULEVARD

MYERS STREET

HP-4 HP-5 HP-9 HP-0 HP-1 HP-7

MW-5 MW-8 MW-4 MW-2 MW-3 MW-6 MW-7 RW-1

VB-14 VB-15 VB-13 VB-12 VB-1 VB-2 VB-3 VB-4 VB-5 VB-6 VB-7 VB-8 VB-9 VB-10 VB-11 VB-14 VB-16 VB-17 VB-18 VB-19 VB-20 VB-21 VB-22 VB-23 VB-24 VB-25 VB-26 VB-27 VB-28 VB-29

EB-1 EB-2 EB-3 EB-4 EB-5 EB-15

AMW-1 AMW-4 AMW-5 AMW-6 AMW-6R AMW-7 AMW-8 AMW-9

WGR-MW2 WGR-MW3

B-1 B-2 B-3 B-4 B-5 B-6 B-7

SB-1 SB-2

CONC. RETAINING WALL

RETAINING WALL

LOADING DOCK

ELEC. SHED

GAS STATION

OHE

Utility Trench
4-5' deep

Utility Trench
5-7' deep

Hawaian Arts

Beauty Supply

Former Young's Dry Cleaners

Hall, Elevator, & Upstairs Offices

Rainbow Apparel

Bingo

Coin Laundry

Cell Phone

Chinese Restaurant

Dry Cleaner

Wells Fargo

0 60 90 120

KEY

EB-1 Soil Boring - Kaldveer 1988

B-1 Soil Boring - Augeas 1994

HP-8 CPT Boring/HydroPunch Sample - PES 1997

MW4 Groundwater Monitoring Well

MW4 Abandoned Groundwater Monitoring Well

Soil Vapor Sample

Soil Boring - AEI 2006

Excavated to depth of 5 to 7 feet bgs

Excavated to depth of 8 to 13 feet bgs

Excavated to depth of 14 to 18 feet bgs

On Site Storm Drain

Off Site Storm Drain

On Site Sanitary Sewer

Off Site Sanitary Sewer

On Site Underground Power

On Site Gas Line

Drafted 6/30/05 - RFF on Dirk Slooten base
Revised 05/15 by J.SMITH

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2500 CAMINO DIABLO, WALNUT CREEK, CA

SITE PLAN

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO. 261829

PG&E

Hall,
Elevator,
&
Upstairs
Offices

SS/VM-1

SS/VM-2

SS/VM-10

SS/VM-5

SS/VM-9

SS/VM-6

SS/VM-3

SS/VM-8

SS/VM-7

SS/VM-4

KEY

Remediation Sump (2' x 2' x 18")

Vapor Extraction Well

AEI Equipment Room

Former Walls

Conveyance Piping

*All Trenching ~ 18 Inches deep

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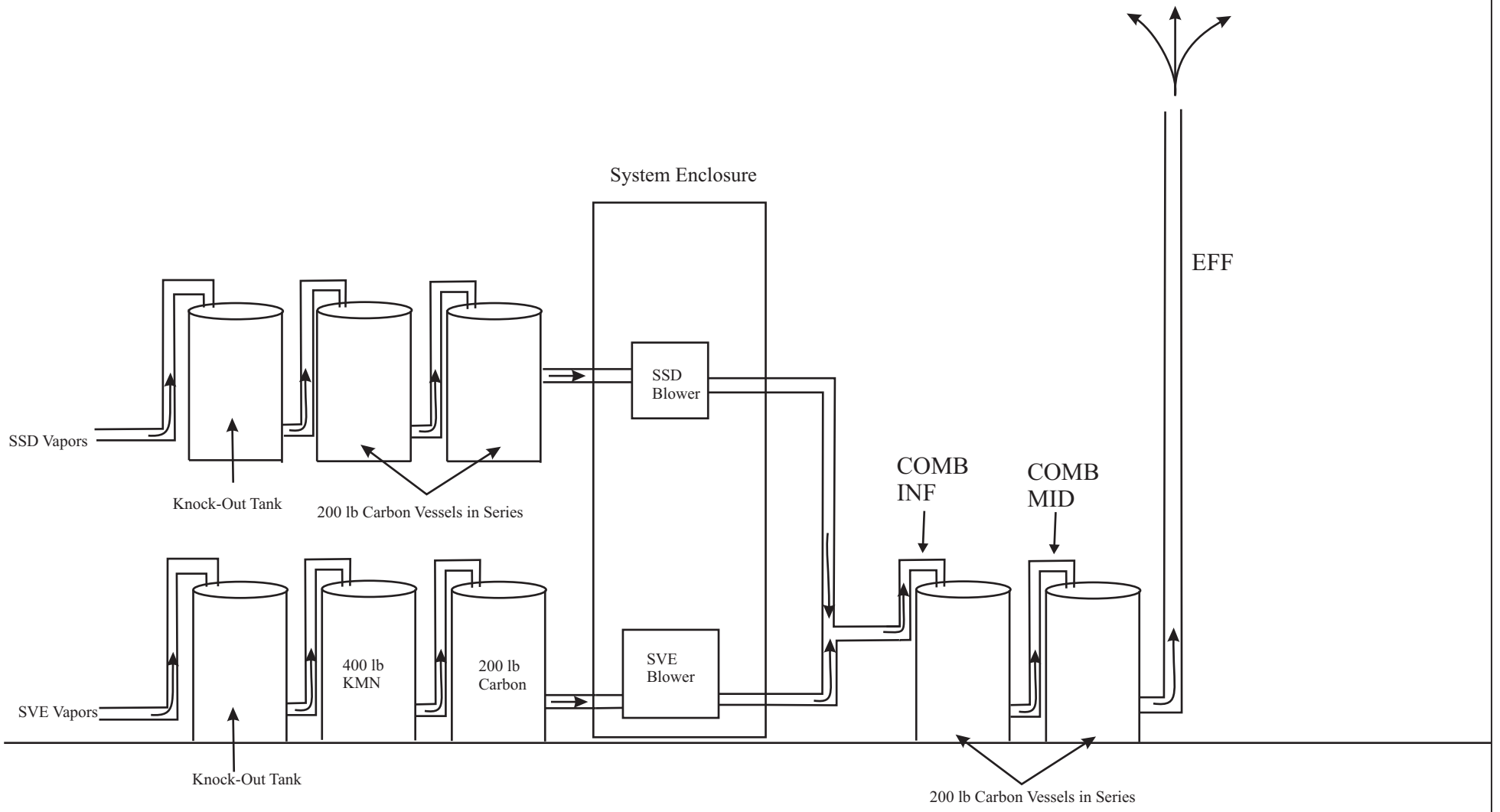
2500 CAMINO DIABLO, WALNUT CREEK, CA

SYSTEM LAYOUT

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 4
PROJECT NO. 261829



NOT TO SCALE

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PROCESS FLOW DIAGRAM

10700 MACARTHUR BLVD.
OAKLAND, CALIFORNIA

FIGURE 5
PROJECT No . 261829