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San Francisco
Department of Public Health

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July 2, 2013

Mr. Maurice Casey
JCN Developers, LLC
630 Taraval Street
San Francisco CA 94116

Subject: Site Mitigation Plan Conditional Approval
490 South Van Ness Avenue, San Francisco
SMED 819

Dear Mr. Casey:

The San Francisco Department of Public Health, Environmental Health-Site Assessment and Mitigation Program (DPH SAM) reviewed the following documents in accordance with California Health and Safety Code, Sections 101480-101490:

- Phase I Environmental Site Assessment, Quality Tune Up, 490 South Van Ness, San Francisco CA, All West Environmental Inc., January 2010
- LOP Project 11063 Reports including: Prior Tank Removal, Site Investigation and Groundwater Monitoring, Case Closure Request and Well Destruction Work Plan, Hageman - Aguiar and Hydro Analysis Inc., 1998 to December 2012
- Industrial Hygiene Report, Air Sampling for Airborne BTEX, 490 South Van Ness, San Francisco CA, Martin Consulting, February 29, 2012
- Report of Environmental Corrective Action, Quality Tune Up, 490 South Van Ness, San Francisco CA, Hydro Analysis Inc., June 14, 2012
- Tank Closure Report, Quality Tune Up, 490 South Van Ness, San Francisco CA, Hydro Analysis Inc., July 26, 2012
- Post Remediation Groundwater Monitoring Report, Quality Tune Up, 490 South Van Ness, San Francisco CA, Hydro Analysis Inc., July 31, 2012
- Shallow Soil Characterization – Total Lead, 490 South Van Ness, San Francisco CA PII Environmental, March 14, 2013
- Site Mitigation Plan, 490 South Van Ness, San Francisco CA, Hydro Analysis Inc., May 9, 2013

Contaminated Sites
Assessment and
Mitigation Program

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Site Description and History

The subject property is 0.327 acres (14,250 SF) located on the northwest corner of 16th Street and South Van Ness Avenue (Block 3553, Lot 008) San Francisco CA. Based on the Phase I Environmental Site Assessment Report (Phase I) the site was a gasoline station by 1936. The auto repair building was constructed in 1974. The property was converted from a gasoline station to an automotive tune up business in 1983. Known underground storage tank removals occurred in 1950, 1998 and 2012. Site investigation and well installations occurred in 1999, 2000, 2001, 2004, and 2012.

Proposed Development

The proposed development for the site involves demolishing the remaining existing structures and constructing a 7-story residential building. The building will have an underground parking garage. The maximum planned depth of excavation is 16 ft bgs. The building covers most of the lot, except for open yard space with a second floor podium along the west property boundary. The yard area will open to Adair Street.

Subsurface Investigations

The property entered the DPH Local Oversight Program (DPH LOP) as a result of the tank removals in 1998. Subsurface investigations of soil and groundwater, including monitoring well installations, were also conducted in 2000, 2001, 2004 and 2012. MW-9 was installed in 2011 as a post remediation down gradient monitoring well. Construction dewatering well casings were installed during 2011 to facilitate dewatering during excavation and construction. The casings are not constructed as monitoring wells. However, the consultant collected grab groundwater samples to provide additional site data. The LOP case was closed by SF DPH and the wells, other than the dewatering wells, were destroyed in April 2013.

Corrective Actions

Excavation for the purposes of remediation occurred between January and March 2012 per an approved Corrective Action Plan (CAP). Much of the southern and central portions of the site, other than beneath buildings, were excavated. The northern area along Adair Street and South Van Ness, including the Adair sidewalk, was also excavated. Excavation occurred to depths of 12 to 16 ft bgs.

Four previously unknown underground storage tanks (UST) were encountered along Adair Street during remediation excavation. The tanks were removed under the authority and permits from the SF DPH Hazardous Materials and Waste Program (HMWP).

Extensive soils sampling occurred during CAP implementation; 57 sidewall and 19 bottom soil samples were collected from the excavations. Soil samples were analyzed for Total Petroleum Hydrocarbons as diesel (TPHd), Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg) TPH as motor oil (TPHmo), gasoline constituents benzene, toluene, ethyl benzene and xylenes (BTEX), methyl tert butyl ether (MTBE), and the LUFT 5 metals cadmium, chromium, lead, nickel and zinc. Approximately 52% of the samples results were below laboratory reporting limits (not detected, ND). Residual contamination is generally limited to limited areas along the excavation edge on 16th Street, South Van Ness Avenue and Adair Street. The maximum residual TPHg concentrations were 3300 mg/kg at 12 ft bgs in Sample AD-6

along Adair Street, 2400 mg/kg at 17 ft bgs in Sample BS-L and 2300 mg/kg in adjacent sample A along South Van Ness Avenue, and 2600 mg/kg in BS-K along 16th Street. The corresponding benzene concentrations in these soil samples were 8.8 mg/kg, ND, ND and 6.8 mg/kg benzene respectively.

A significant odor issue existed during CAP excavation. Work was stopped, mitigation measures implemented, and air samples collected, to address the odor issue. ACGIH TWA for gasoline is 300 parts per million (ppm). The maximum concentrations in the air samples collected on site were 0.0033 ppm benzene and 0.6 ppm volatile petroleum hydrocarbons, including gasoline. The onsite sample concentrations are less that 10% of the TWA. Ten percent of the PEL (TWA) was the guideline set by the DPH Environmental Health Director during a Director's Conference on February 21, 2012.

Post remediation groundwater monitoring was performed during 2012. The groundwater analytical results for the latest sampling event showed a maximum TPHg value of 1700 micrograms per liter (ug/L) in MW-9. The maximum TPHg value is a significant decrease from the pre remediation maximum TPHg value of 9200 ug/L in MW-7. The maximum benzene value was 210 ug/L in MW-9. Benzene concentrations decreased or remained below ESL in all wells except MW-9 and DC-4. The maximum benzene value is a significant decrease from the pre-remediation maximum benzene value of 1700 ug/L in MW-7. Methyl tert butyl ether (MTBE) was ND in all wells sampled. The overall groundwater contaminant concentrations appear to be decreasing and limited in extent.

Site Mitigation Plan

The Site Mitigation Plan (SMP) describes soil handling profiling, storage, transportation and disposal procedures. The SMP also addresses groundwater removal and sampling, nuisance abatement, confirmation sampling, contingency actions, and includes a health and safety plan, dust control plan, and descriptions of vapor intrusion controls and mechanical ventilation. Soil handling procedures include segregation of soils in areas of potential contamination, profiling and transportation to the appropriate landfill. Groundwater will be pumped for construction dewatering. The water will be discharged to the sewer per a PUC permit. Odor and dust control procedures were developed and implemented during the corrective action excavation. These procedures will be followed during construction excavation. Contingency procedures if an underground tank is encountered are listed. Confirmation sampling will occur in areas not previously sampled. A detailed Site Specific Health and Safety Plan and the Dust Control Plan developed for the corrective action, both prepared by Granite Excavation and Demolition, are appended to the SMP.

Mitigating measures were proposed to address the residual contamination in soil and groundwater. These measures may be needed to address residual contamination exceeding California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESL) for soil and groundwater. Since the depth to groundwater approximately equals or is less than the planned depth of the building basement. Soil vapor samples, for an assessment of vapor intrusion, would not be feasible.

The SMP includes a description of the proposed vapor/waterproofing barrier for the building. The information included the materials to be used and the suppliers design drawings. A letter from the supplier, epro Waterproofing Systems dated April 2, 2013, discusses the conditions at the 490 South Van Ness site. The letter states that the suppliers System III MB or System III MBB are designed for

concentrations 10 to 12 times the highest groundwater concentrations recently reported for TPHg, TPHd and BTEX. A letter dated April 25, 2013 from MHC Engineers states that the garage ventilation design for 490 South Van Ness will meet DBI directives, will be 24/7 operational and capable of 4 air changes per hour.

Voluntary Remedial Action Program Considerations

Please be aware that a revised and reauthorized Maher Ordinance, which will apply to most of San Francisco, may be approved by the San Francisco Board of Supervisors in July. If approved, the ordinance will become City law by September 1, 2013.

DPH SAM conditionally approves the Site Mitigation Plan. The following conditions apply and should be submitted as an addendum to the SMP or with the final project report as listed below.

Amend the SMP nuisance abatement section to include procedures for collecting air samples for laboratory analysis and field analysis in the event of nuisance odors. The laboratory analyses and/or field analyses should be selected to identify the odor causing chemicals.

Groundwater samples should be collected and analyzed near the beginning and near the end of construction dewatering. Samples should be analyzed for TPH and VOC.

DPH SAM recommends that the Health and Safety plan include the use of respirators if nuisance odors persist. DPH SAM recommends that site workers receive respirator training as part of their HAZWOPER training.

Any vapor barrier, venting or ventilation system designs should be signed and stamped by an appropriately licensed engineer and submitted to DPH SAM at least 2 weeks prior to installation.

Prepare and submit to DPH SAM a final project report describing SMP implementation, following completion of construction earthwork.

The final project report shall include a summary of SMP implementation, site map showing areas of excavation and fill, sample locations and depths, tables summarizing analytical data, and included as appendices: Copies of permits (including dewatering permit if needed), manifests or bills of lading for removed soil and/or water, laboratory reports of chemical analyses.

Should you have any questions, please contact me at (415) 252-3885 or elyse.heilshorn@sfdph.org.

Sincerely,

Scott Nakamura, REHS
Program Manager

cc: Gary Aguiar Hydro Analysis Inc.
Jeanie Poling, SF Planning