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Soil Management Plan

3060 Carmel Valley Road
San Diego, California

Prepared for:
KA Enterprises
5820 Oberlin Drive, Suite 201
San Diego, California 92121

Prepared by:
Enercon Services, Inc.
1827 Capital Street, Suite 103
Corona, California 92880

August 24, 2023
Project No. KAENT-00003

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August 24, 2023
Project No. KAENT-00003

Mr. Eugene Marini
KA Enterprises
5820 Oberlin Drive, Suite 201
San Diego, California 92121

Subject: **Soil Management Plan**
3060 Carmel Valley Road
San Diego, California

Dear Mr. Marini:

Enercon Services, Inc. (ENERCON) has prepared a Soil Management Plan (SMP) to provide procedures and criteria to guide and manage unknown environmental issues that may be encountered during redevelopment activities at 3060 Carmel Valley Road, San Diego, California (site). The site gasoline service station. KA Enterprises is planning to demolish the existing building for the construction of a larger convenience store and a car wash. The dispenser island and underground storage tanks will not be relocated. We appreciate the opportunity to provide service on this project. Should you have any questions or comments, please contact the undersigned at your convenience.

Sincerely,

Enercon Services, Inc.

Dennis Kawasaki
Principal Scientist

Hooshang Nezafati, Ph.D., P.E.
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
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Distribution: (1) Addressee

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Acronyms

ACMs	Asbestos-Containing Materials
bgs	Below the Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CCR	California Code of Regulations
DTSC	California Department of Toxic Substances Control
ENCON	ENCON Solutions, Inc.
ENERCON	Enercon Services, Inc.
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
GPS	Global Positioning System
HASP	Health and Safety Plan
HHRA	Human Health Risk Assessment
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level for Drinking Water
MTBE	Methyl tert-Butyl Ether
PAHs	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PID	Photoionization Detector
ppm	Parts per Million
RSLi	Regional Screening Levels for Industrial/commercial Land Use
SDAPCD	San Diego Air Pollution Control District
SDCDEH	San Diego County Department of Environmental Health
SDRWQCB	California Regional Water Quality Control Board, San Diego Region
SFRWQCB	San Francisco Bay Regional Water Quality Control Board
SLi	Screening Levels for Industrial/commercial Land Use
SLIC	Spills, Leaks, Investigations, and Cleanups
SMP	Soil Management Plan
TBA	Tert Butyl Alcohol

Acronyms (continued)

TBD	To be Determined
TPHcc	Total Petroleum Hydrocarbons, Carbon Chain C_4-C_{35}
TPHg	Total Petroleum Hydrocarbons, as Gasoline
ug/L	Micrograms per Liter
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

1 INTRODUCTION

Enercon Services, Inc. (ENERCON) has prepared this Soil Management Plan (SMP) has been prepared at the request of KA Enterprises to provide procedures and criteria to guide and manage unknown environmental issues that may be encountered during redevelopment activities at 3060 Carmel Valley Road, San Diego, California (site; **Figure 1**). The site is a gasoline station that consists of a convenience store, a three-bay automobile service station, and gasoline and hydrogen fueling systems (**Figure 2**). KA Enterprises is planning to demolish the convenience store and service station building for the construction of a larger convenience store and a car wash. The hydrogen fueling system will be relocated, however, the gasoline fueling system, including the dispenser islands and underground storage tanks (USTs) will remain.

2 BACKGROUND

The following presents a summary of historical land uses, previous environmental investigations, and proposed redevelopment. This information was obtained from the Phase I Environmental Site Assessment (ESA), dated August 16, 2017, prepared by ENCON Solutions, Inc. (ENCON) for the subject property (ENCON, 2017). The proposed redevelopment information was provided by KA Enterprises.

2.1 Historical Land Uses

Based on the ENCON Phase I ESA, the site was vacant land until the present-day gasoline station was constructed in 1968. A previous generation UST system consisting of four gasoline USTs operated at the site until they were replaced by the present-day USTs consisting of three 10,000-gallon USTs in 1985. A site map showing the exact location of the previous generation USTs was not found during ENCON's investigation but is presumed to have likely been in the same location as the present-day USTs. The gasoline station consists of an approximately 1,792-square-foot building on the southwestern portion that houses a convenience store and a three-bay automobile repair shop for minor vehicle maintenance such as brake services and oil changes. It is noted that based on a site plan provided by KA Enterprises, the site building is approximately 2,417 square feet. Based on the age of the site building, asbestos-containing materials (ACMs) have been identified (ENERCON, 2023). Two in-ground hoists and a clarifier are reported to be in the automobile repair shop. A 550-gallon waste oil UST is reported to be located on the north side of the building. Five fuel dispensers are located beneath a canopy on the southern portion of the

site. The USTs are located south of the canopy. The ENCON Phase I ESA identified two closed cases due to historical fuel releases at the gasoline station. A summary of the previous investigations is provided below in **Section 2.2**.

2.2 Previous Investigations

The ENCON Phase I ESA identified two closed cases as a result of fuel releases at the gasoline station. Based on the age of the site building, ENERCON completed an asbestos survey.

2.2.1 Spills, Leaks Investigations, and Cleanups Case - 1985

A Spills, Leaks, Investigations, and Cleanups (SLIC) case was opened by the SDCDEH on August 7, 1985 as a result of “minor soil contamination” from “overfilling of the tanks.” The impacted soil was reported to have been excavated in 1985, and confirmation samples collected om 1987. The case was reportedly closed by the SDCDEH on December 17, 1987 when “no significant contamination remained.”

2.2.2 Leaking UST Case - 2003

A Leaking UST (LUST) case was opened by the SDCDEH on September 24, 2003 as a result of a release identified during piping and dispenser upgrade activities. In October 2013, approximately 128 cubic yards of petroleum hydrocarbon-impacted soil was reportedly over-excavated to a depth of approximately six feet below the ground surface (bgs). As a result of the release, six groundwater monitoring wells were installed and monitored for 21 quarters by various consultants, with groundwater measured between 9 and 13 feet bgs. Based on the cumulative soil and groundwater analytical results, it was concluded that soil and groundwater impacts have been delineated and “does not pose a risk to human health, nearby sensitive receptors, or the environment.” The SDCDEH agreed with this conclusion and issued case closure on March 12, 2010.

2.2.3 Due Diligence Investigation - 2009

In 2009, as part of a due diligence investigation for a property transaction, soil and groundwater sampling was conducted at the site. This investigation included soil sampling at approximately 5 to 11 feet bgs from 5 borings and 5 hydropunch samples. The samples were collected within and surrounding the dispenser islands and USTs. The soil samples indicated no detectable concentration of total petroleum hydrocarbons, as

gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), or fuel oxygenates. The groundwater samples indicated no detectable concentrations of TPHg or BTEX. Fuel oxygenates, however, were detected in 2 of 5 samples collected in the area south of the dispenser islands, including methyl tert-butyl ether (MTBE) at concentrations of 2.2 and 4.9 micrograms per liter (ug/L) and tert butyl alcohol (TBA) at concentrations of 8,200 and 8,800 ug/L. ENERCON notes that the MTBE concentrations are below the California Maximum Contaminant Level for Drinking Water (MCL) of 13 ug/L, and there is no MCL for TBA. As previously discussed in Section 2.2.1, the SDCDEH issued case closure on March 12, 2010.

2.2.4 Asbestos Survey - 2023

In February 2023, ENERCON conducted an asbestos survey of the site building. Material samples were collected throughout the site building including dry wall and joint compounds, tile and mastic, air duct insulation, window putty, and roof materials. A total of 60 samples were collected. Two samples, collected from mastic located in the supply room and store area, were identified to contain detected concentrations of greater than 1 percent of ACMs. The condition was noted to be good and non-friable, with an estimated quantity of 450 square feet (ENERCON, 2023). Based on these results, ENERCON recommended that the ACMs be removed before renovation or demolition activities.

2.3 Proposed Development

The present-day building will be demolished for the construction of a car wash along the western portion of the site. The hydrogen fueling area will also be relocated for the construction of a 2,727 square-foot convenience store. The fuel islands and existing USTs will be left in place (**Figure 3**).

As part of the proposed redevelopment, grading and excavation activities are reported to be limited to the upper five feet. Based on the estimated depth to groundwater, 9 to 13 feet bgs, groundwater will not be encountered, and therefore, dewatering will not be required. Based on the previous soil sampling conducted in 2009, and since the fuel island and USTs will not be encountered during the redevelopment activities, there is a low likelihood that petroleum hydrocarbon-impacted soil will be encountered. The two in-ground hoists, a 550-gallon waste oil UST, and a clarifier associated with the automobile repair service activities will be removed during building demolition. The ACMs identified

in the site building will also be removed prior to demolition activities. This SMP will be implemented during construction activities to address potentially impacted soil that may be encountered during construction activities.

3 OBJECTIVE

The objective of the SMP is to present procedures and criteria to identify and properly manage unknown environmental concerns that might be encountered during soil disturbance activities. This SMP provides procedures for the effective and prompt communication of the discovery of unknown environmental concerns to KA Enterprises and soil sampling protocol to identify contaminated soil, if encountered. The SMP also presents the procedures to sample import fill material that may be used at the site.

4 PROGRAM PARTICIPANTS

The following presents the SMP program participants.

4.1 ENERCON Representatives

ENERCON will act as the environmental consultant and provide field oversight and management services for the SMP. ENERCON personnel will include a SMP Field Coordinator and a SMP Program Manager. An alternative SMP Program Manager is also provided.

The SMP Field Coordinator for this project is:

- Mr. Matthew Penksaw, cell (714) 804-3623

The SMP Program Manager for this project is:

- Mr. Dennis Kawasaki, cell (909) 560-7408

The Alternative SMP Program Manager for this project is:

- Hooshang Nezafati, Ph.D., P.E., cell (949) 933-7884

4.2 Owner's Participants

The Owner’s Project Director is:

- Mr. Eugene Marini, KA Enterprises, cell (619) 820-6180

4.3 General Contractor's Participants

The General Contractor who will provide contracting services during redevelopment is to be determined (TBD).

The General Contractor's Project Executive is:

- TBD

The General Contractor's Project Manager is:

- TBD

The General Contractor's Project Site Superintendent is:

- TBD

4.4 Agency Participants

Based on the historical gasoline station operations at the site, the City of San Diego has requested that this SMP is reviewed and approved by the California Regional Water Quality Control Board, San Diego Region (SDRWQCB).

If a regulated feature, such as a UST, is encountered, the appropriate local regulatory agency, such as the San Diego County Department of Environmental Health (SDCDEH), will be notified to oversee removal activities. The feature will be removed, and confirmation soil samples will be collected under the direction of the appropriate agency. If unknown environmental concerns are encountered, including soil or other materials with unusual odors, staining, or elevated photoionization detector (PID) readings, the material will be initially sampled, and the extent will be characterized, if necessary. For purposes of this SMP, PID readings of greater than 50 parts per million (ppm) will be considered elevated.

If the materials are determined to exceed the cleanup criteria noted herein but are limited in extent, the materials may be excavated for off-site disposal. However, if the materials pose an immediate threat to groundwater or human health, ENERCON, with the permission of the Owner's Project Director, will notify the appropriate regulatory agency for oversight prior to remediation measures.

5 INDIVIDUAL AND AGENCY RESPONSIBILITIES

The following presents the individual and agency responsibilities of the SMP program participants. This SMP presents the procedures to address unknown environmental concerns encountered during grading operations and to present a sampling protocol for importing soils to the site.

As previously discussed, unknown environmental concerns are defined as regulated features such as USTs or unregulated features, such as stained or odors soil or other materials, discovered during grading. Regulated features are defined as features regulated by a state or local regulatory agency. If unknown environmental concerns are discovered, the SMP Program Manager will coordinate the characterization or remediation activities. Remediation activities will be completed to the satisfaction of a regulatory agency or to the standards set forth in **Section 6.2.3**.

5.1 SMP Field Coordinator

The SMP Field Coordinator shall be responsible for the following tasks:

- Monitor field activities during soil disturbance activities to assess potential unknown environmental concerns, if encountered;
- As directed and after having been permitted, if required, supervise remediation activities related to regulated features discovered at the site;
- If needed, collect soil samples, and arrange for laboratory analyses of unknown environmental concerns discovered at the site; and
- Maintain a record of soil sample locations and document field conditions.

5.2 SMP Program Manager

The SMP Program Manager shall be responsible for the following tasks:

- Monitor the work of the SMP Field Coordinator;
- Communicate field activities to the Owner's Project Director and regulatory agency, if involved;
- Notify the Owner's Project Director and regulatory agency, if needed, of unknown environmental concerns encountered during redevelopment activities;
- Communicate with regulatory agencies about the proposed scope of work to investigate regulated features;
- Evaluate data collected during site assessment to characterize, delineate, and properly manage unknown environmental concerns; and
- Prepare reports of field activities.

5.3 General Contractor Project Manager or Project Site Superintendent

The General Contractor Project Manager or Project Site Superintendent shall be responsible for the following tasks:

- Monitor excavation and grading operations for air emissions and fugitive dust in accordance with San Diego Air Pollution Control District (SDAPCD) rules and take

such measures, as necessary, to properly manage dust and soil from leaving the site. Applicable ADAPCD rules are further discussed in **Section 6.2.1**;

- Report suspected unknown environmental concerns to the SMP Field Coordinator who will notify the SMP Program Manager and the Owner's Project Director. The SMP Program Manager or Owner's Project Director will contact the appropriate regulatory agency, when applicable; and
- If an unknown environmental concern is encountered, the SMP Field Coordinator will direct the General Contractor to stop grading activities in the area of the feature and delineate the area with "caution" tape, delineators, or fencing, prior to characterization and/or remediation.

5.4 Agency Responsibilities

If needed, the SMP Program Manager will work with the appropriate regulatory agency, such as the SDCDEH or SDRWQCB to oversee and approve permits and prepare work plans and reports on an expedited schedule so as not to delay grading or redevelopment activities. The SMP Program Manager, with the permission of the Owner's Project Director, will notify the appropriate agencies if regulated features are discovered, and may request oversight during site characterization and remediation, if needed. If unregulated features, such as stained or odorous soils, are discovered to be extensive or threaten the environment (i.e., groundwater) or human health, an oversight agency will be consulted with Owner's Project Director consensus. If no threat to groundwater or human health is determined, characterization and remediation may be completed without regulatory oversight.

5.5 General Responsibilities

ENERCON personnel responding to unknown environmental concerns at the site will have current HAZWOPER health and safety training. As presented in **Section 6.1.1**, ENERCON will implement a Health and Safety Plan (HASP) for use by ENERCON's employees and its subcontractors. A copy of the HASP is presented in **Appendix A**. ENERCON's scope of work for this project does not include health and safety monitoring for the General Contractor's personnel or subcontractors as part of its daily work activities. The General Contractor and subcontractors will provide their own HASP.

6 ENVIRONMENTAL ACTIVITIES FOR SITE GRADING

The following presents the activities that will be performed during on-site grading activities.

6.1 Pre-Grading Activities

The pre-grading activities will be conducted to minimize downtime and interruptions of redevelopment activities. These pre-field work activities are intended for the protection of health and safety and for preparing and coordinating site individuals with their respective responsibilities.

6.1.1 Health and Safety Plan (HASP)

ENERCON has prepared a HASP that will be used to protect ENERCON's workers and its subcontractors from chemicals that might be encountered. A copy of the HASP is provided in **Appendix A**.

6.1.2 Pre-Grading Meeting

A pre-grading meeting will be attended by the SMP Field Coordinator, the SMP Program Manager, the General Contractor Project Manager, the General Contractor Project Site Superintendent, and the Owner's Project Director. The agenda of the meeting will include a summary of the historical land use, environmental investigations, potential chemicals of concern, worker safety requirements, and dust control measures. The pre-grading meeting will also outline possible unknown environmental concerns that might be encountered during mass-grading. The SMP Program Managers will present and review the information provided in this SMP, including the responsibilities and emergency phone numbers of the SMP program participants.

6.2 During Grading Activities

Once grading has begun, the following activities will be performed.

6.2.1 Visible Emissions and Fugitive Dust Control

The General Contractor or its subcontractor will monitor excavation and grading operations for visible emissions in accordance with SDAPCD Rule 50 and fugitive dust control in accordance with SDAPCD Rule 55. The General Contractor will direct its employees or subcontractor to take necessary measures, such as the application of water or a change in operations or equipment, to properly manage visible emissions or dust from leaving the site. Copies of SDAPCD Rule 50 and Rule 55 are provided in **Appendix B**.

If impacted soil is encountered, such as petroleum hydrocarbon-impacted soil, excavated soils that are stockpiled at the site will be placed on and covered with plastic sheeting. Wheel shakers will be installed at all exits from the site to ensure that soil will be removed from the tires of vehicles exiting the site. Notable track-outs from the site will be cleaned from the surrounding streets on a daily or as-needed basis.

6.2.2 Notification and Identification of Unknown Environmental Concerns

Based on the historical use of the site, unknown environmental concerns may be encountered during redevelopment. The SMP Field Coordinator will complete part-time monitoring of disturbed soils during grading activities to identify possible unknown environmental concerns. The General Contractor will be responsible for notifying ENERCON personnel of stained or odorous soils, or if regulated features are encountered.

As previously stated, unknown environmental concerns may include regulated features, such as USTs, or unregulated features, such as stained or odorous soil, that are discovered during redevelopment. If field observations (i.e., odors, staining, and/or PID readings) indicate the possible presence of impacted soils, additional sampling may be necessary. If a regulated feature is discovered, the appropriate permits will be obtained prior to the removal of the feature.

All unknown environmental concerns will be plotted on a scaled plan of the site using a global positioning system (GPS), survey data, or measurements from surveyed points or key site features. ENERCON will complete further characterization, remediation, and agency notification, if necessary, as per **Sections 6.3.1** and **6.3.2**.

6.2.3 Cleanup Standards

The site cleanup standards will be based on published regulatory screening levels for the protection of groundwater, human health, and air emissions. These will include the California Department of Toxic Substances Control (DTSC) Screening Levels for industrial/commercial land use (DTSC-SLi) for the protection of human health, the EPA Regional Screening Levels for industrial/commercial land use (EPA-RSLi) for the protection of human health, and the San Francisco Bay Regional Water Quality Control

Board Environmental Screening Levels for leaching to groundwater (SFRWQCB-ESLgw).

If impacted soil exceeding the protection of human health or groundwater criteria is to be left in place, the material will be evaluated on an environmental and health risk basis (i.e., the preparation of a risk-based analysis based on an industrial/commercial land use scenario).

6.3 Site-Specific Soil Management Protocols

The Site-Specific Soil Management Protocols for possible unknown environmental concerns that might be encountered during redevelopment activities are grouped by the type of environmental concern and have been developed with acknowledgment of historical land use and previous subsurface investigations completed at the site. The SMP Program Manager and/or the appropriate oversight regulatory agency will determine the need to collect soil samples for chemical analyses. The analyses will be completed by a State-certified environmental laboratory. The following presents the site-specific Soil Management Protocols.

6.3.1 Stained and/or Odorous Soil or Other Unregulated Feature

If stained, odorous, and/or soil containing elevated PID readings are encountered during soil disturbance activities, the soil will be sampled for profiling purposes. If laboratory results indicate concentrations exceeding the state and/or federal screening levels for the protection of human health or the environment, the extent of impacted materials will be defined, and the soils will be excavated and disposed of appropriately. Confirmation soil samples will be collected to verify that the extent has been reached. If the initial laboratory results indicate low concentrations of residual chemicals, below the state and/or federal screening levels for the protection of human health and the environment, the materials will be left on-site. Any remaining materials with elevated concentrations will be plotted on a map for possible further characterization and remediation after construction activities.

6.3.2 Regulated Features

If a regulated feature such as a UST is encountered, the SMP Program Manager will assist with the coordination of obtaining the appropriate permits to remove the feature and will follow the regulatory guidelines set forth by the appropriate regulatory agency.

6.3.3 Sampling Export Soils

Only impacted soils, if encountered, are anticipated to be removed from the site. The soil will be sampled and tested for the appropriate parameters to meet disposal profiling purposes.

6.3.4 Sampling Imported Soil

To assure that imported soils to the site are "clean," ENERCON will sample the materials prior to transport to the site. Currently, regulatory agencies have not established standards that address environmental requirements for acceptance of clean imported fill materials at commercial properties. The DTSC, however, has issued an advisory entitled *"Information Advisory Clean Imported Fill Material"* dated October 2001. This guideline was prepared for school sites and is very conservative, and therefore, will be used as a general guideline, depending on the amount of soil to be imported and source location. A copy of this document is provided in **Appendix C**. ENERCON may use additional information such as knowledge of the property or known land use history to determine actual sampling criteria.

6.3.4.1 Sampling Criteria

To minimize the potential of introducing contaminated fill material onto the site, it is necessary to verify through documentation that the fill source is adequate and/or have the fill materials analyzed for potential contaminants based on the location and history of the source area. Fill documentation might include a Phase I ESA and/or the results of testing. If such documentation is not available or is inadequate, ENERCON will conduct a review of the source property location's current and historical operations to determine what analytical parameters are relevant. The analysis of the fill material will be based on the source of the fill and/or knowledge of historical land use. If knowledge of the prior land use is unknown, then an appropriate suite of analyses will be performed prior to the fill being used at the site. Sampling procedures are presented in **Appendix D**.

Table 1a and **1b** presents the generally recommended number of samples to be collected from an area of fill obtained from in-place materials and the number of samples to be collected from a volume of fill from stockpiled materials.

Table 1a: Recommended Fill Material Sampling Schedule – In-Place Soil

Area of In-Place Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every ½ acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 sub-samples per location (32 total samples)

Table 1b: Recommended Fill Material Sampling Schedule – Stockpiled Soil

Volume of Borrow Area Stockpile	Sampling Requirements
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1,000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for the first 5,000 cubic yards +1 sample per each additional 1,000 cubic yards

Table 2 presents the recommended chemical analyses to be performed based on the fill source. To assess the chemical analyses, a Phase I ESA or equivalent document shall be reviewed to assess historical and current uses of the source property and to determine whether the borrow area may have been impacted by historical operations. If a Phase I ESA is not available, ENERCON will conduct a preliminary screening of the source property using readily available online information, such as the State Water Resources Control Board GeoTracker and DTSC EnviroStor online databases. All sampling and analyses will be completed prior to the delivery of the materials to the site. The soil samples may be composited at the discretion of the SMP Program Manager and in consultation with a Professional Engineer or Geologist.

Table 2: Recommended Chemical Analyses for Fill Source Area

Fill Source	Target Compounds
Land near to existing freeway	Lead (EPA Methods 6010B or 7471A), PAHs (EPA Method 8310)
Land near mining area or rock quarry	Heavy Metals (EPA Methods 6010B and 7471), Asbestos (polarized light microscopy), pH
Agricultural Land	Organochlorine Pesticides (EPA Method 8081A or 8080A); Organophosphate Pesticides (EPA Method 8141A); Chlorinated Herbicides (EPA Method 8151A), Heavy Metals (EPA Methods 6010B and 7471)
Residential/ Acceptable Commercial Land	VOCs (EPA Method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA Method 8270C), TPHcc (EPA Method 8015 modified), PCBs (EPA Method 8082 or 8080A), Heavy Metals including Lead (EPA Methods 6010B and 7471)

The acceptable levels will be based on current regulatory guidelines and/or site-specific cleanup criteria as presented below.

6.3.4.2 Acceptable Levels

Following receipt of laboratory reports, ENERCON will evaluate the analytical results to assess whether the materials meet the criteria of “clean” soils. To do so, ENERCON will compare the results to various regulatory guidelines. When more than one cleanup standard is available, the more conservative value will be used. When applicable, industrial/commercial standards will be used. In general, if concentrations exceed the standards set forth in these documents, the materials will not be accepted as fill materials. However, if chosen, a risk analysis may be completed using site-specific data to further evaluate whether the materials may be used at the site. The following documents will be used to evaluate import soils.

- EPA Regional Screening Levels, industrial soil, dated May 2023 (EPA-RSLi);
- DTSC Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs) for commercial/industrial soil, dated May 2022 (DTSC-SLi);
- DTSC HHRA Note Number 11, Southern California Ambient Arsenic Screening Level (DTSC Ambient Arsenic Screening Level);
- SFRWQCB-ESL, Leaching to Groundwater Levels; and/or

- Hazardous waste criteria outlined in the California Code of Regulations (CCR) Title 22 (referred to herein as Title 22).

The following presents the constituents to be analyzed and the cleanup criteria that will be used to assess whether the materials can be used for import soils.

- Petroleum hydrocarbons – EPA-RSLi, DTSC-SLi, or SFRWQCB-ESLgw
- VOCs – EPA-RSLi, DTSC-SLi, or SFRWQCB-ESLgw
- SVOCs and PAHs – EPA-RSLi, DTSC-SLi, or SFRWQCB-ESLgw
- Metals – EPA-RSLi or background
- Arsenic – background or the DTSC Ambient Arsenic Screening Level
- Pesticides – EPA-RSLi, DTSC-SLi, or SFRWQCB-ESLgw
- PCBs – EPA-RSLi, DTSC-SLi, or SFRWQCB-ESLgw
- Asbestos – less than detectable limits when analyzed by PLM.
- pH – Title 22.

7 REFERENCES

California Department of Toxic Substances Control (DTSC), 2005, Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, dated February.

_____, 2011, Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, dated October.

_____, 2015, Advisory Active Soil Gas Investigations, dated July.

_____, 2020, Human Health Risk Assessment (HHRA) Note Number 11, Southern California Ambient Arsenic Screening Level, dated December 28.

_____, 2022, Human Health Risk Assessment (HHRA) Note Number 3, DTSC Screening Levels (DTSC-SL), dated June 2020, revised May 2022.

Environmental Protection Agency (EPA), 2023, Regional Screening Levels (RSL), Summary Table, dated May.

ENCON, 2017, Phase I Environmental Site Assessment, 3060 Carmel Valley Road, San Diego, California, 92130: report prepared for Ms. Bona Kang, Bank of Hope, Gardena, California, dated August 16.

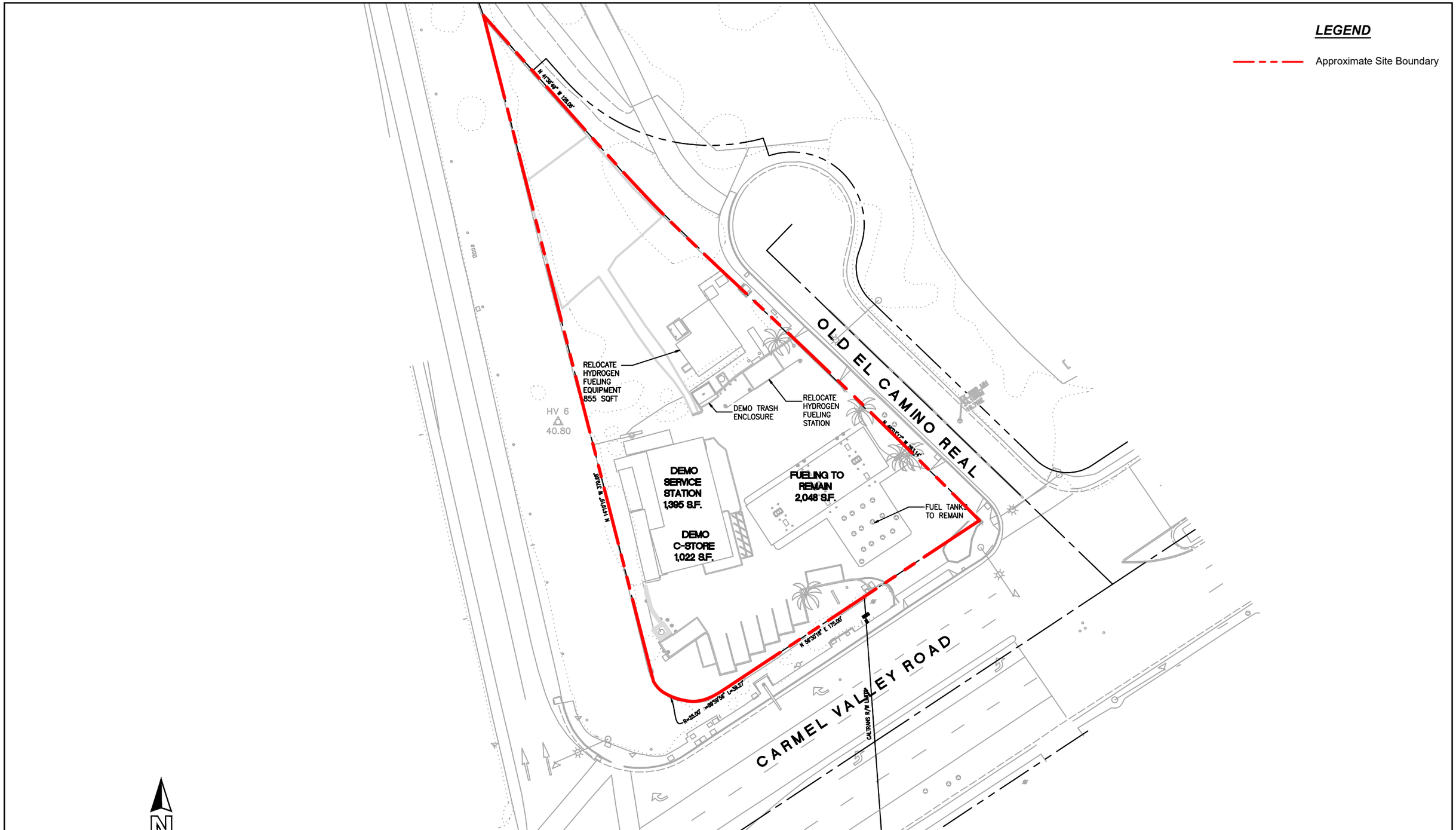
ENERCON, 2023, Asbestos Survey Report, 3060 Carmel Valley Road, San Diego, California: report prepared for KA Enterprises, San Diego, California, dated March 15.

San Francisco Bay Regional Water Quality Control Board (SFRWQCB), 2019, Environmental Screening Levels, dated January 24.

Source: United States Geological Survey (USGS) 7.5 minute series, San Diego, California, Topographic Quadrangle Map

N

ENERCON Excellence—Every project. Every day	PROJECT NO. KAENT-00003	SITE LOCATION MAP	FIGURE 1
	DATE 08/23	3060 CARMEL VALLEY ROAD SAN DIEGO, CALIFORNIA	



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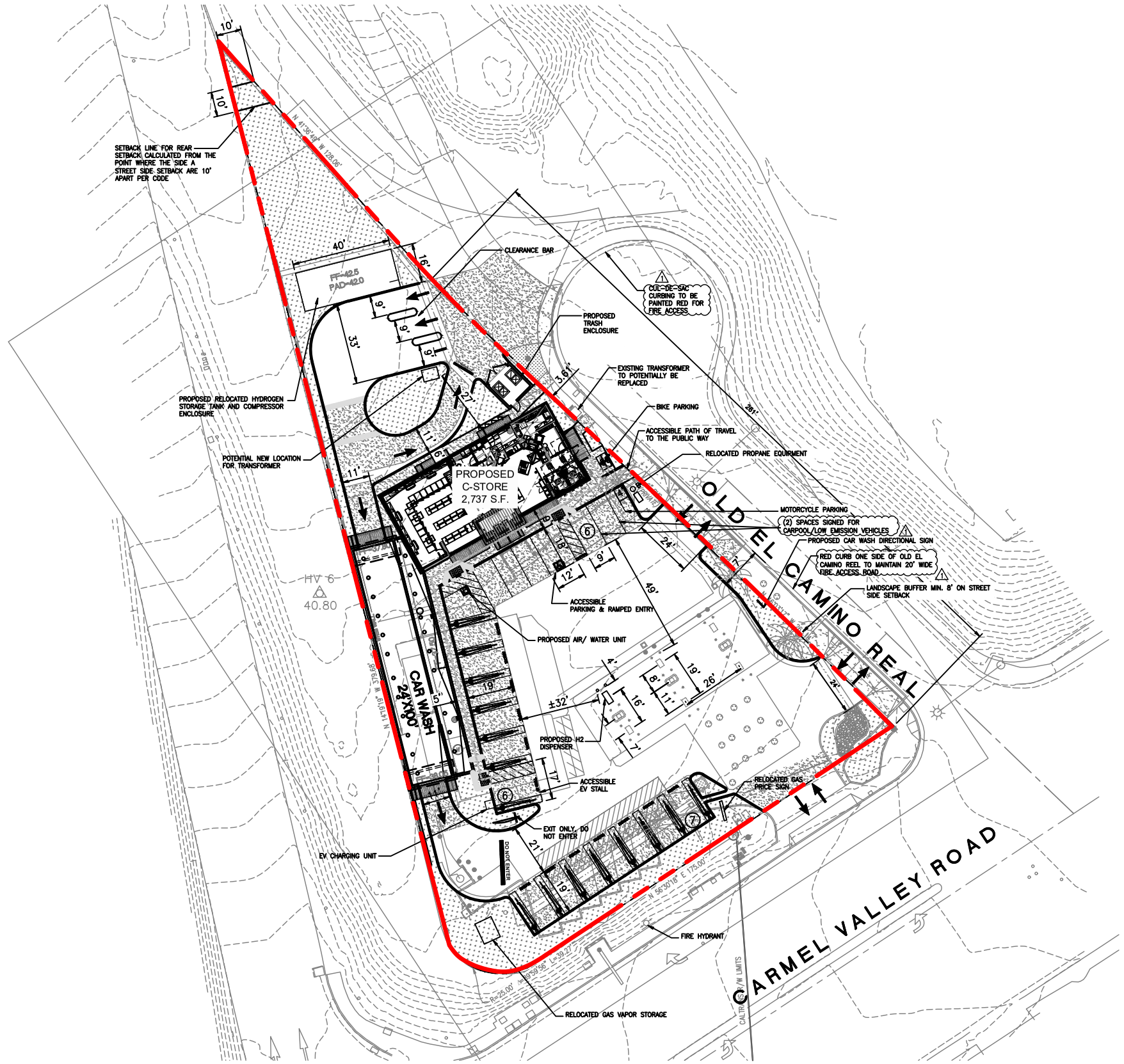
PROJECT NO.	CURRENT SITE PLAN	FIGURE
KAENT-00003		2
DATE 08/23	3060 CARMEL VALLEY ROAD SAN DIEGO, CALIFORNIA	

LEGEND

Approximate Site Boundary



N

Approximate Scale, Feet

0 25 50 100

Dimensions, Directions, and Locations are Approximate

ENERCON Excellence—Every project. Every day.	PROJECT NO. **KAENT-00003**	PROPOSED REDEVELOPMENT PLAN	FIGURE 3
	DATE **08/23**	3060 CARMEL VALLEY ROAD SAN DIEGO, CALIFORNIA	

APPENDIX A

HEALTH AND SAFETY PLAN

ENERCON

Excellence—Every project. Every day.

Health and Safety Plan

3060 Carmel Valley Road
San Diego, California

Prepared for:
KA Enterprises
5820 Oberlin Drive, Suite 201
San Diego, California 92121

Prepared by:
Enercon Services, Inc.
1827 Capital Street, Suite 103
Corona, California 92880

August 24, 2023
Project No. KAENT-00003

APPROVED BY

ENERCON Project Manager	08/24/23 Date
Health and Safety Manager	08/24/23 Date

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1 INTRODUCTION

This Health and Safety Plan (HASP) has been prepared by Enercon Services, Inc. (ENERCON) to provide procedures to guide field activities at 3060 Carmel Valley Road, San Diego, California (site or subject property). The site is a gasoline station that consists of a convenience store, automobile service station, and gasoline and hydrogen fueling systems. KA Enterprises is planning to demolish the convenience store and service station building for the construction of a larger convenience store and car wash. The hydrogen fueling system will be relocated, however, the gasoline fueling system, including the dispenser islands and underground storage tanks (USTs) will remain. This HASP is part of a Soil Management Plan (SMP) prepared by ENERCON to provide procedures and criteria to guide unknown environmental issues that may potentially be encountered prior to and during redevelopment activities at the subject property.

In the event that unknown environmental concerns are identified, ENERCON will assist with assuring that personnel directly associated with the management of potentially contaminated soils or regulated features are properly trained, assuring that the area of impacted media is secured, notifying the parties involved of the chemicals that may be encountered, assuring proper personal protection equipment (PPE) is available and being used, monitoring chemicals in ambient air and safety conditions during removal of soils or features, assuring soils that are generated at the site are properly managed prior to disposal, and arranging for the generated materials to be disposed.

2 PROJECT SAFETY PERSONNEL

The Program Manager is responsible for delivering this HASP and any addenda to the Field Coordinator. The Program Manager is responsible for distributing the plan to all field personnel and to an authorized representative of each firm conducting work at the site. The Program Manager is also responsible for implementing the provisions of this plan and its addenda. Implementation includes a review of the HASP requirements, a review of field personnel compliance with medical examination requirements, a review of the provisions of this plan with the Owner's representative (and its subcontractors), field personnel involved with the project, provision for safety equipment specified in **Subsection 5.4**, and submission of the requisite health and safety documents, including the forms in **Appendix A** and **Appendix B**.

The Field Coordinator is responsible for assisting the Program Manager with the on-site implementation of this HASP. His/her responsibilities include: 1) maintaining safety equipment

supplies, 2) performing air quality measurements as specified herein, 3) directing decontamination operations and emergency response operations until public emergency personnel arrive on-site, 4) setting up work zone limits as specified herein, and 5) reporting all accidents, incidents, and infractions of safety rules and requirements to the Program Manager.

The Field Coordinator has the authority to suspend work any time he judges that the provisions of the site safety plan are inadequate to provide a working environment conducive to worker safety and is to inform the Program Manager of any individuals whose on-site presence jeopardizes their own health and safety or the health and safety of others. The responsible personnel for this project are listed below in **Table 1**.

Table 1 – Responsible Site Personnel

Title	Name	Daytime	After Hours
Program Manager	Dennis Kawasaki	(951) 736-5334	(951) 972-2131
Field Coordinator	Matthew Penksaw	(951) 804-3623	(951) 804-3623
Site Health and Safety Officer (SHSO)	Matthew Penksaw	(951) 804-3623	(951) 804-3623
Health and Safety Manager	Tyler McGraw	(951) 736-5334	(304) 573-0076
General Contractor	To Be Determined	To Be Determined	To Be Determined
Grading and Excavation Contractor	To Be Determined	To Be Determined	To Be Determined

3 BACKGROUND AND WORK DESCRIPTION

The site was vacant land until the present-day gasoline station was constructed in 1968. A previous generation UST system consisting of four gasoline USTs operated at the site until they were replaced by the present-day USTs consisting of three 10,000-gallon USTs in 1985. The previous generation USTs are presumed to have likely been in the same location as the present-day USTs. The gasoline station consists of an approximately 2,417-square-foot building on the southwestern portion that houses a convenience store and a three-bay automobile repair shop for minor vehicle maintenance such as brake services and oil changes. KA Enterprises is planning to demolish the current building for the construction of a larger convenience store and car wash.

As presented in the SMP, redevelopment activities will include disturbing shallow soils for geotechnical purposes and during utility installation. Although no known environmental concerns which could potentially pose a risk to human health have been identified at the site, the SMP was prepared as a precautionary measure to manage unknown hazardous or regulated

materials that could potentially be encountered during grading and redevelopment. As presented in the SMP, the scope of work for this project does not include health and safety monitoring for the General or Grading Contractor's personnel and subcontractors as part of their daily work activities during any soil excavation activities. The General Contractor and subcontractors will provide their own HASP.

4 HAZARD ASSESSMENT

The following subsections include potential hazards that may be present at the site or created as a result of the operations being conducted at the site.

4.1 Confined Spaces

A "confined space" is defined by the Occupational Safety and Health Administration (OSHA) as a space that has one of the following characteristics:

- Limited openings for entry and exit, such as tanks, tunnels, vaults, etc.,
- Not designed for continuous worker occupancy, or
- Unfavorable natural ventilation or other hazards.

Work will not be conducted in confined space as defined by 29 Code of Federal Regulations (CFR) 1910.146. Excavations greater than four feet deep will not be entered.

4.2 Chemical Hazards

No chemicals of concern have been identified at the site based on the results of previous investigations. However, there is a potential given the historical site use that limited areas of petroleum hydrocarbons or volatile organic compounds (VOCs) may be encountered.

4.3 Inhalation Hazard

Based on the site history, previous investigations, and proposed redevelopment activities, elevated concentrations of VOCs are not expected to be encountered at the site. The chemicals and concentrations previously detected in discrete soil samples do not pose a significant threat to human health. Unknown environmental concerns that are identified will be managed in accordance with the SMP.

In the unlikely event that drilling is needed for site assessment work, ambient air will be monitored for inhalation hazards. The following **Table 2** provides guidelines as to the action required in response to a range of corresponding photoionization detector (PID)

measurements of some of the most conservative chemical compounds that might be encountered. The measurements will be collected in the ambient air in the breathing zone of personnel working in the area. The PID will be equipped with an electron-volt (eV) bulb of 10.2 or greater. ENERCON will use benzene, a chemical with very conservative exposure limits, as a baseline for respiratory protection.

Table 2 – Monitoring Methods and Action Levels for Volatile Organic Compounds Using Screening Survey Instruments

Chemical	Routes of Entry	Respirator Protection Required	Stop Work	CAL/OSHA TWA	CAL/OSHA STEL
Benzene	Inhalation, Dermal	OVA = >1 ppm	OVA = >100 ppm	1 ppm	5 ppm

Notes:
If concentrations at or above the stop-work thresholds are encountered, work must cease and the SMP Program Manager and Corporate Health and Safety Director must be contacted to render judgment whether more stringent respiratory protection is required and extension of the restricted access work zone is necessary.
OVA – Organic vapor analyzer.
TWA – Time-Weighted Average concentration for a normal 8-hour workday and a 40-hour work week, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.
ppm – Parts per million. For inhalation exposure, the exposure concentration is measured in the breathing zone of the individual (i.e., within 3 inches of the nose and mouth).
TLV – Threshold Limit Value. The time-weighted concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.
OSHA PEL – Occupation Safety and Health Administration Permissible Exposure Limit. Based on a 10-minute maximum peak in any 3 hours.

4.4 Dermal Exposure Hazard

Contact of sufficient duration to cause significant skin absorption of toxic components is judged to be highly unlikely. Repeated daily or prolonged contact with the chemicals listed in **Subsection 4.2** may potentially defat the skin and, over a long period of time, can lead to irritation and dermatitis. For this reason, wearing protective gloves and clothing as specified in **Subsection 5.4** should minimize direct skin contact with chemicals potentially present. However, if dermal contact does occur, the exposed areas should be washed with soap and water immediately and rinsed thoroughly.

4.5 Explosion and Fire Hazard

Explosion hazards are not expected at the site during the planned operations. However, caution will be taken to minimize sources of ignition. Cigarettes and open flames are prohibited within the restricted access work zone described in **Subsection 5.3**.

4.6 Noise Hazard

Exposure to high levels of noise, both chronic and acute, can lead to different types of reactions. Acute (impulse) noise, such as noise associated with heavy equipment operation, jackhammers, drilling activities, and work performed in the flight path of aircraft, can afflict the operator with a temporary loss of hearing at certain frequencies associated with the equipment being used. Ordinarily, this loss is reversible, and after a short period of time (less than a day) the hearing will return to normal. However, chronic exposure to this noise may eventually cause the hearing acuity to be permanently and irreversibly altered. The change may be subtle and could occur over a period of time.

Permanent noise-induced hearing loss is attributed to the intensity and frequency distribution of the noise, the time pattern and duration of exposure, and individual susceptibility. Sound levels (noise) are measured in decibels using an A-weighting filter (dB [A]). The CAL/OSHA (TWA) for noise exposure is 90 dB(A) for an eight-hour duration and 85 dB(A) for a Hearing Conservation Program. It is not expected that the noise level generated during this phase of work will exceed the TLV; however, hearing protection will be readily available on the site and will be mandated at SHSO discretion.

4.7 Heat Stress Hazard

Heat stress occurs when the body produces or absorbs more heat than it is able to dissipate. Heat is produced internally as the result of metabolic activity and increases with body activity or the level of physical work being performed. Heat can be absorbed by the body from ambient air and from the radiant heat of the sun.

The body's ability to absorb heat is therefore affected by factors such as the ambient air temperature and humidity, air density, radiant energy and cloud cover, wind velocity and airflow, and localized heat generation, such as that from power equipment. The body's ability to dissipate heat to the environment is dependent on factors such as the amount of heat and radiant energy in the ambient environment, exposure to the ambient or radiant heat in that environment, and its own inherent ability to cool itself (perspiration). Exposure to ambient conditions is affected by such factors as wind velocity or airflow, cloud cover or shade, and the type of protective clothing being worn. Its ability to cool itself is affected by its own inherent biovariability.

Any of these factors may contribute to a loss of body fluids and electrolytes, and an increase in body temperature. A significant increase in body temperature can be life threatening and can rapidly become fatal or result in permanent injury. Heat stress may cause any of the following conditions: heat cramps, heat syncope (fainting), heat exhaustion, and/or heat stroke. If one of these conditions is experienced, call emergency service personnel immediately. To help prevent heat stress, it is recommended that liquids be easily available and frequently consumed during the day. The SHSO will monitor workers visually during site work including body core temperature measurements when and if appropriate.

4.8 Electrical Hazard

Contact with electrical current can cause shock and electrical burns and can be instantly fatal. The potential for exposure to electrical current exists through contact with electrical tools or equipment, generators and electrical control equipment, and overhead and underground power lines. Care must be taken to avoid contact with sources of electricity. Work will cease if lightning is observed or expected to occur.

Frayed electrical cords or electrical cords with damaged plugs shall not be used. Electrical cords shall not be used in proximity to water.

4.8.1 Underground Utilities

Prior to starting soil intrusive activities, all known underground utilities and lines shall be located and marked on the ground and on a site map. Locator services from Underground Service Alert (USA) and each utility company whose utility service may intersect the facility shall be requested. Soil intrusive work shall not proceed until all locating activities have been completed and are fully documented in the site records. The initial site safety orientation meeting for all personnel working on-site shall include a review of the underground utility locations and where the site map will be located that shows the positions of any underground utility lines. The site safety orientation shall include a site walkover of each marked utility or line.

If drilling is needed, prior to drilling, each borehole location will be cleared of underground utilities by hand augering the upper five feet of soil at the location of the borehole. During the performance of work, should personnel encounter a

subsurface condition that creates suspicion that there may be an unidentified underground line or utility, such an individual shall immediately cease work, secure his/her equipment, and notify the General Contractor, Program Manager, and Field Coordinator.

4.8.2 Overhead Power Lines

Operation of equipment in the vicinity of overhead power lines shall be in accordance with California OSHA (Cal-OSHA) Electrical Safety Orders. The subcontractor's field supervisors and operators shall take necessary precautions for implementing safe work practices under such conditions. The following information was excerpted from the Cal-OSHA Electrical Safety Orders.

Table 3 indicates the general clearances from electrical lines for personnel and erection, handling, or transportation of tools, machinery, materials, structures, or scaffolds from overhead high-voltage power lines. **Table 4** indicates the general clearances for equipment such as drill rigs, cranes, and hoists.

Table 3 – General Clearances Required from Energized Overhead High-Voltage Conductors

Normal Voltage (Phase to Phase)	Minimum Required Clearance (feet)
600 to 50,000	6
50,000 to 345,000	10
345,000 to 750,000	16
750,000 to 1,000,000	20

Table 4 – Boom-Type Lifting or Hoisting Equipment Clearances Required from Energized Overhead High-Voltage Lines

Normal Voltage (Phase to Phase)	Minimum Required Clearance (feet)
600 to 50,000	10
50,000 to 75,000	11
75,000 to 125,000	13
125,000 to 175,000	15
175,000 to 250,000	17
250,000 to 370,000	21
370,000 to 550,000	27
550,000 to 1,000,000	42

Notes:
Authority cited: Section 142.3, Labor Code.
Reference: Section 142.3, Labor Code.

4.9 Excavation Site Hazards

The movement of grading equipment, tractors, backhoes, and trucks in the work zone, as it relates to the hazards associated with an excavation site, such as the cave-in of an excavation, requires a high awareness of safety on the part of the equipment operators. The contractors are expected to make sure that all of their operators at the site are experienced in excavations and are aware of the excavation site hazards. The boundary of the site is to be fenced, and movement of unauthorized personnel within the work zone prevented. The boundary of the site is to be clearly posted with the appropriate warning signs. Excavations greater than four feet will not be entered.

4.10 Activity Hazard

The principal type of activity hazard expected to be encountered during this operation includes the potential for falls, and adverse contact with tools and equipment. The experience of personnel with this type of equipment and the procedures outlined in this HASP should minimize potential safety hazards of this type. In addition, the safety equipment listed in **Subsection 5.4** that is required to be used for this operation should minimize the potential for injury to personnel.

4.11 Heavy Equipment Operations

As heavy equipment operations are to be conducted at the site, all haulage, drilling, and earth moving shall, at a minimum, comply with the requirements set forth in Title 8, California Code of Regulations (CCR) Construction Safety Orders. As a part of the initial site safety orientation meeting (**Subsection 5.2**), equipment operators and any personnel (including foreman, supervisor, surveyors, grade checkers, etc.) associated with haulage and earth moving activity shall carefully review these regulations and any other site-specific requirements. It is the responsibility of the subcontractor to monitor its personnel for compliance with these regulations and requirements. In particular, the following guidelines are to be followed by those involved with haulage and earth moving.

- Subcontractor-authorized personnel, trained in and familiar with the equipment, its operation, and safety provisions, will perform operations.

- Maintenance and/or adjustments to machinery will not be conducted while the equipment is operating or energized unless continued operation is necessary in accordance with the machinery manufacturer's written specifications. All repairs will be performed in a designated equipment-repair work zone. Power will be disconnected or engines shut off prior to servicing equipment unless continued operation is necessary in accordance with the machinery manufacturer's written specifications. Power supplies/switches will be clearly labeled as such, to prevent accidental startup. Equipment being repaired will be appropriately blocked and/or secured.
- Only equipment with all guards and safety controls in place are to be permitted by the subcontractor to operate on-site.
- Equipment is to meet all federal, state, and local standards and be mechanically sound and in good condition.
- Operators will perform daily safety inspections and necessary repairs are to be made before equipment is operated. If any equipment is judged to be unsafe during operation, it is to be taken out of service until it is repaired.
- When not in use, keys to equipment are to be removed and kept in a location remote from the equipment.

4.12 Subsurface Earth Work

Excavation activities are planned to be completed during redevelopment of the site. At a minimum, all excavation activity conducted by contractors shall comply with the requirements set forth in Title 8, CCR, Construction Safety Orders. All bank, grades, and excavation walls shall be sloped to an angle of less than the angle of repose (but at no time at an angle of less than allowed in the regulations for the existing soil conditions) for the type of soil; alternatively, the excavation can be shored in accordance with applicable regulatory requirements. Trenches and pits more than 4 feet deep, and the bases of excavation embankments more than 4 feet high, will be considered hazardous areas, with no entry permitted unless the slope or shoring requirements have been met.

5 GENERAL HEALTH AND SAFETY REQUIREMENTS

5.1 Medical Clearance and Monitoring

All project personnel who may be required to wear respirators must have on file evidence that they have been cleared by a physician to wear a respirator. This information will be provided to ENERCON upon request.

5.2 Safety Orientation Meeting

All field personnel must attend a daily safety orientation meeting before commencing the fieldwork. The meeting will be scheduled and conducted by the Program Manager or the

Field Coordinator. The meeting will include receipt of the required signed releases by the Field Coordinator.

5.3 Restricted Access Work Zone

A restricted access work zone (a minimum of 25 feet wide when possible) will be maintained around the work areas. Due to site conditions and constraints, it may be necessary to make modifications to the width/circumference of the restricted access zone. The Field Coordinator has the authority to make reasonable adjustments as he/she judges necessary. Protective clothing and equipment, as described below in **Subsection 5.4**, are to be worn by all personnel working within the restricted access work zone. The purpose of the restricted access work zone is to provide points of ingress and egress for personnel and equipment. The zone is to be demarcated with caution/hazard tape and barricades (or similar restricting material). The restricted access work zone is to be clearly labeled as such. In addition to the restricted access work zone, a gate should restrict vehicular access to the site when possible.

5.4 Protective Equipment and Clothing

The following protective equipment and clothing will be required during excavation and re-development activities.

5.4.1 Equipment Required For Field Personnel While Working in the Restricted Access Work Zone

Personnel working within the restricted access work zone are to wear the following equipment unless otherwise specified in writing by the Corporate Health and Safety Manager and/or the Program Manager.

- Hardhat
- Boots (steel-toed)
- Safety glasses
- Gloves (latex and/or nitrile)

Equipment to be Available On-Site

- First Aid Reference Guide
- Earplugs

- Two respirators (National Institute of Occupational Safety and Health/Mine Safety and Health Administration (NIOSH/MSHA)-approved half-mask with organic vapor cartridges)
- PID and calibration gas
- First-aid kit with eye wash
- Fire extinguisher
- Construction tape and barriers to delineate restricted access work zone
- Water and soap for washing
- A vehicle with keys in the ignition and headed in a direction for quick departure for the transport of slightly injured personnel to the hospital must be kept on-site when personnel are working. Severely injured personnel MUST be transported ONLY by paramedics (except as permitted in **Subsection 7.1**). A copy of the hospital address and route directions from **Subsection 7.5** must remain in the vehicle.

5.4.2 Respirator Usage

The Program Manager is responsible for deciding if respiratory protection is required and if the level of respiratory protection used should be more stringent. If a decision is made to base respirator selection on PID measurements, refer to **Table 2** in **Subsection 4.3** for critical concentrations. **Subsection 6.1** presents organic vapor monitoring frequency and duration.

The conditions in **Subsection 5.1** are to be complied with. Cartridges for the respirators must be replaced daily or when breakthrough occurs, whichever occurs first. All individuals intending to wear respirators need to be fit-tested or provide evidence of fit testing.

5.4.3 Buddy System

All field personnel while working in the restricted access work zone during the field activities are to work with another person at the site. The subcontractor's representative can serve as the second person while the work is being conducted in the field. Under no circumstances, other than the completion of paperwork at the end of the day, are field personnel to work alone at the site while conducting field activities.

6 ORGANIC VAPOR MONITORING

The following presents the exposure concerns that might be encountered during organic vapor monitoring.

6.1 Exposure Concerns

Organic vapor concentrations (as measured by the PID) in the breathing zone (the area nearest to the individual's mouth) of the individual working nearest to the potential vapor source will be monitored during field operations. Monitoring, using the PID, will be conducted at approximate 15-minute intervals, for a sampling duration of approximately 60 seconds while work is being conducted. Occasionally, the monitoring frequency may be modified at the discretion of the Field Coordinator due to changes in field activities. All measurements, as well as the time of day the measurements were collected, will be documented. A form that can be used to document these measurements is presented in **Appendix C**. Daily field logs can be used to document these measurements also. Refer to **Subsection 4.3** for guidelines to judge when respiratory protection is necessary based on PID measurements.

As noted above, grading equipment and backhoes will be used to move large quantities of soil during redevelopment activities. These activities will enhance the likelihood of producing VOC-containing vapors from the soil, if present. Based on this information, ENERCON will monitor ambient air on an on-call basis when or if odorous soil with elevated vapors is encountered.

7 EMERGENCY RESPONSE PROCEDURES

The following presents the emergency response procedures that may be required during field activities.

7.1 Physical Injury

In the event of an accident resulting in physical injury, call emergency service personnel immediately and perform first aid commensurate with training and seriousness of the injury. Severely injured personnel are to be transported only by emergency service personnel and/or by ambulance personnel unless a life-threatening condition is judged to exist that must be addressed immediately. If emergency or ambulance personnel transport injured personnel to the hospital, the hospital will be selected at the discretion of the emergency or

ambulance personnel. The hospital selected may or may not be the hospital listed in **Subsection 7.5** of this document. At the hospital, a physician's attention is mandatory regardless of how serious the injury appears.

The Program Manager is to be notified by the Field Coordinator, as soon after the injury as practical, regarding the nature of the accident. A written report is also to be prepared and submitted by the Field Coordinator to the Program Manager within 24 hours of the accident. If the Field Coordinator is unable to make the report (due to injury), an individual designated by the Program Manager shall make the report.

7.2 Fire, Explosion, and Property Damage

In the event of a fire or explosion, notify the fire department immediately by dialing 911.

The Program Manager is to be notified by the Field Coordinator as soon as practical and a written report prepared within 24 hours of the accident.

In the event of any accident involving serious injury of sufficient magnitude, work at the site shall cease until the Corporate Health and Safety Manager and/or the Program Manager (or a designee) has completed a review of the events and site conditions and has authorized work to resume.

7.3 Emergency Telephone Numbers

Fire Department	911
Police Department	911
Paramedics	911

7.4 Work Site Address

The site is located at 3060 Carmel Valley Road, San Diego, California.

7.5 Hospital Address and Route

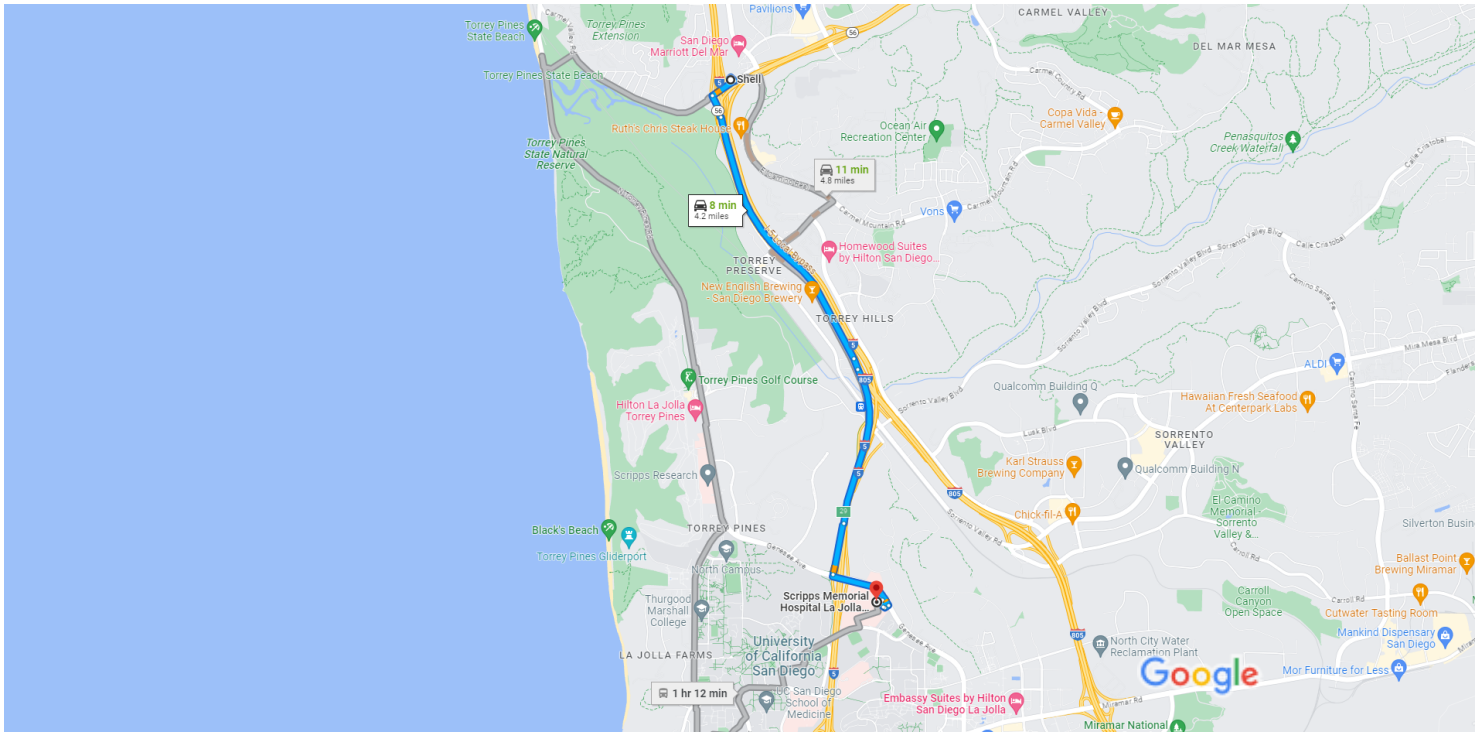
For hospital routes, see attached map from Google Maps (maps.google.com).

Scripps Memorial Hospital La Jolla
9888 Genesse Avenue
La Jolla, California 92037
Telephone: (858) 834-1798

Google Maps

Shell, 3060 Carmel Valley Rd, San Diego, CA 92130 to Scripps Memorial Hospital La Jolla Emergency Room, 9888 Genesee Ave, La Jolla, CA 92037

Drive 4.2 miles, 8 min



Map data ©2023 Google 2000 ft

Shell
3060 Carmel Valley Rd, San Diego, CA 92130

Get on I-5 S from Carmel Valley Rd

2 min (0.4 mi)

1. Head north toward Old El Camino Real

112 ft

2. Turn right onto Old El Camino Real

171 ft

3. Turn right onto Carmel Valley Rd

0.2 mi

4. Use the left 2 lanes to turn left to merge onto I-5 S

0.2 mi

Continue on I-5 S to Genesee Ave. Take exit 29 from I-5 S

3 min (3.2 mi)

5. Merge onto I-5 S

1.8 mi

6. Use the right 3 lanes to take the I-5 S exit toward Downtown

384 ft

7. Continue onto I-5 S

1.0 mi

8. Use the 2nd from the right lane to take exit 29 for Genesee Ave

0.3 mi

Continue on Genesee Ave to your destination

2 min (0.6 mi)

9. Use the left 2 lanes to turn left onto Genesee Ave

0.4 mi

10. Turn right onto Scripps Hospital Driveway

144 ft

11. Turn right

72 ft

12. Turn right

269 ft

13. Turn left

Destination will be on the right

184 ft

Scripps Memorial Hospital La Jolla Emergency Room
9888 Genesee Ave, La Jolla, CA 92037

APPENDIX A

HEALTH AND SAFETY COMPLIANCE AGREEMENT

Copy:_____

CONTRACTOR HEALTH AND SAFETY COMPLIANCE AGREEMENT

Project Name:_____

I, _____(PRINT NAME), have received a copy of the entire Health and Safety Plan for the above-referenced project. I have read the plan, understand it, and agree to comply with all of the health and safety requirements. I understand that I may be prohibited from working on the project for violating any of the requirements.

I have been approved to wear a respirator by a physician based on medical examination. I have been trained in the appropriate use, care, and storage of respiratory equipment. I have been respirator fit-tested, and I will have my respirator available for use in the field. I understand that I am to use the equipment supplied to me by my employer. I further understand that this equipment is provided solely for my benefit with the intent to minimize my exposure to potentially hazardous conditions. In the event of such usage, I agree to indemnify and hold harmless Contractor and all of its employees from and against any and all losses, demands, claims, liabilities, lawsuits, damages, costs, and expenses arising, in any way, from the use of the equipment.

Visitors will not receive a copy of the Health and Safety Plan but will be required to review it. It is required that visitors be escorted in the restricted access work zone. Visitors must comply with the Contractor escort directions while on-site at all times. Non-compliance with escort directions will not be tolerated, and violators will be requested to leave the site immediately.

Thank you for your cooperation.

_____ _____

Signature Date

Note: This original signed agreement is to be placed in the referenced project file.

APPENDIX B

HEALTH AND SAFETY ORIENTATION MEETING ATTENDANCE ROSTER

HEALTH AND SAFETY ORIENTATION MEETING ATTENDANCE ROSTER

The following personnel involved in the field activities have attended a Health and Safety Plan orientation meeting.

By initialing this form, each person acknowledges that he/she has read and understands the indicated, numbered copy of the Health and Safety Plan.

Copy	Name	Company	Date	At-tendees Initial
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

Meeting Date: _____

Meeting Leader: _____

Project Name: _____

APPENDIX C

ORGANIC VAPOR MONITORING DOCUMENTATION FORM

ORGANIC VAPOR MONITORING DOCUMENTATION FORM

Contractor:

Address: Page of

Telephone: Fax: Date:

Project: Client:

Address: Location:

Operation Monitored:

Instrument: Model: Serial No.:

Calibration Date: Probe: Settings:

Temp: Rel. Hum: Wind: Indoor: Outdoor:

Interference: Operator:

Sample No	Time	Scale	Setting	Reading	Location	Comments

ENERCON
Excellence—Every project. Every day.

APPENDIX B

SAN DIEGO AIR POLLUTION CONTROL DISTRICT RULES

REGULATION IV. PROHIBITIONS

RULE 50. VISIBLE EMISSIONS (Effective 1/1/69; Rev. Effective 8/13/97)

(a) **APPLICABILITY**

Except as otherwise provided in Section (b), this rule applies to the discharge of any air contaminant other than uncombined water vapor.

(b) **EXEMPTIONS**

The provisions of this rule shall not apply to:

(1) Smoke from the use of an orchard or citrus grove heater which does not produce unconsumed solid carbonaceous matter at a rate in excess of one gram per minute;

(2) Emissions from the use of equipment in agricultural operations;

(3) Smoke from open fires set pursuant to a permit and its conditions;

(4) Abrasive blasting operations subject to the provisions of Rule 71 of Regulation IV of these Rules and Regulations;

(5) The use of visible emissions generating equipment in training sessions conducted by governmental agencies for the purpose of certifying persons to evaluate visible emissions from compliance with applicable provisions of the State of California Health and Safety Code and District Rules and Regulations;

(6) The use of obscurants for the purpose of training military personnel and the testing of military equipment by the United States Department of Defense on any military reservation;

(7) Equipment used exclusively for the purpose of flash-over fire fighting training; and

(8) Emissions from vessels using steam boilers during emergency boiler shutdowns for safety reasons, safety and operational tests required by governmental agencies, and where maneuvering is required to avoid hazards. Emissions from vessels during a breakdown condition, as long as it is reported in accordance with District Rule 98.

(c) **DEFINITIONS**

(1) **"Asphalt Plant Drop Zone"** means the area immediately below a device, in an asphalt manufacturing facility that loads or drops asphalt onto the cargo beds of trucks and trailers.

(2) **"Asphalt Paving Equipment"** means equipment handling asphalt cement or asphaltic concrete as part of a paving operation, including chip seal or sand seal.

(3) **"Obscurants"** means fog oil released into the atmosphere during military exercises which produces a smoke screen designed to eliminate the detection of persons or objects by visual or electronic means of observation within a localized area.

(4) **"Observer"** means a certified human observer or a certified, calibrated opacity monitoring system.

(5) **"Pavement Rehabilitation Equipment"** means equipment used to resurface or refinish an existing paved surface, such as asphalt pavement heaters, asphalt grinders, planers, profilers.

(6) **"Single Source"** means individual unit of equipment or operations at a given location, including any associated outlets to the atmosphere, which may be operated simultaneously.

(7) **"Rubber Modified Spray Applied Asphalt"** means rubber modified asphaltic cement, including, but not limited to rubber modified asphaltic cement containing polymers or asphalt rubber binders, applied with an application temperature specification of 320°F or higher, or encompassing a temperature range including 320°F or higher, in a thin layer to a road surface.

(d) **STANDARDS**

(1) Except as otherwise provided in Section (b) above and subsections below, a person shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart.

(2) A person shall not discharge into the atmosphere from any asphalt plant drop zone any contaminant for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes which is as dark or darker in shade than that designated as Number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 2 on the Ringelmann Chart.

(3) A person shall not discharge into the atmosphere from any diesel pile driving hammer any contaminant for a period or periods aggregating more than four minutes during the driving of a single pile which is as dark or darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer’s view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart.

(4) A person shall not discharge into the atmosphere from any diesel pile driving hammer which uses kerosene fuel, smoke suppressing fuel additives, and synthetic lubricating oil any contaminant for a period or periods aggregating more than four minutes during the driving of a single pile which is as dark or darker in shade than that designated as Number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 2 on the Ringelmann Chart.

(5) A person shall not discharge into the atmosphere from any asphalt paving equipment with an application temperature specification of 320°F or higher, or encompassing a temperature range including 320°F or higher, or pavement rehabilitation equipment, any emissions whatsoever of air contaminants for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes which is darker in shade than that designated as Number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 2 on the Ringelmann Chart. This provision does not apply to portable rubber modified spray applied asphalt cement equipment.

(6) A person shall not discharge into the atmosphere from the operation, maintenance or testing of fire fighting training units used exclusively for the purpose of shipboard fire fighting training, from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any period of 60 consecutive minutes which is darker in shade than that designated as Number 2 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 2 on the Ringelmann Chart.

RULE 55 FUGITIVE DUST CONTROL
(Adopted June 24, 2009; Effective December 24, 2009)

(a) **APPLICABILITY**

Except as provided in Section (b), the provisions of this rule shall apply to any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas. Activities subject to this regulation are also subject to the applicable requirements of Rule 50 (Visible Emissions) and Rule 51 (Nuisance).

(b) **EXEMPTIONS**

The provisions of this rule shall not apply to the following:

(1) Noncommercial construction or demolition activities in support of any structure designed for and used exclusively as a dwelling for not more than four families;

(2) Emergency operations conducted during and in response to life-threatening situations, or in conjunction with any officially declared disaster or state of emergency;

(3) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and/or sewer during periods of unplanned service outages and emergency disruptions;

(4) Any active operation, open storage pile, or inactive disturbed area for which the owner/operator can demonstrate that necessary fugitive dust preventive or mitigating actions are in conflict with the California or federal Endangered Species Acts, or a local, state, or federal water quality requirement;

(5) Explosive blasting operations. However, any other activities capable of generating fugitive dust emissions and performed in conjunction with explosive blasting, such as vehicle transport of materials produced by blasting operations, are not exempt from complying with the provisions of this rule or other applicable rules;

(6) Abrasive blasting operations regulated by Rule 71 (Abrasive Blasting);

(7) Activities subject to an Air Pollution Control District permit to operate;

(8) Permanent unpaved roads.

(c) **DEFINITIONS**

For the purpose of this rule, the following definitions shall apply:

(1) **"Active Operation"** means any construction or demolition activity capable of generating fugitive dust. This includes but is not limited to, earth-moving activities, and heavy- and light-duty vehicular movement on disturbed surface areas or on unpaved roads.

(2) **"Bulk Materials"** means any material which can emit fugitive dust when stored, disturbed, or handled, and is un-packaged. Bulk material includes, but is not limited to, sand, gravel, soil, aggregate material, and other organic or inorganic particulate matter.

(3) **"Commercial"** means work conducted for financial compensation by other than a tenant or property owner.

(4) **"Construction or Demolition Activity"** means any on-site activity preparatory to or for the purpose of building, altering, rehabilitating, raising, tearing down, breaking into pieces, or improving property, including, but not limited to, the following activities: grading, excavation, loading, transporting, crushing, cutting, planing, shaping or ground breaking.

(5) **"Dust"** means minute solid particles released into the air by natural forces or by mechanical processes including, but not limited to: crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, and sweeping.

(6) **"Earth-moving Activities"** means activities that include, but are not limited to, grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing bulk materials from open storage piles, or soil mulching.

(7) **"Emergency"** means an immediate threat to human health or property.

(8) "**Erosion**" means the movement and deposition of land surface materials by water or wind primarily as a result of human activities.

(9) **"Inactive Disturbed Area"** means a portion of the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emissions of fugitive dust. This definition excludes those areas that have:

(i) Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(ii) Been paved or otherwise covered by a permanent structure; or

(iii) Established a vegetative ground cover equivalent to at least 70% percent of the background coverage for nearby undisturbed areas.

(10) **"Open Storage Pile"** means any accumulation of bulk material with five percent or greater silt content which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more

square feet. Silt content level is assumed to be five percent or greater unless a person can show, by sampling and analysis in accordance with ASTM Method C-136 or other equivalent method approved in writing by the California Air Resources Board, that the silt content is less than five percent.

(11) "**Owner/operator"** means any person who owns, leases, operates, controls, or supervises any activity subject to this rule or any person who owns, leases, operates, controls, or supervises the site at which any activity subject to this rule occurs, or both.

(12) **"Particulate Matter"** means any finely divided material which exists as a solid or liquid at standard conditions, excluding uncombined water.

(13) **"Paved Road"** means an improved street, highway, alley, public way, or easement that is covered by concrete, asphaltic concrete, fresh or recycled asphalt, or rubberized asphalt, excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic.

(14) "**Permanent Unpaved Road**" means any unsealed or dirt roadway that is not covered by concrete, asphaltic concrete, fresh or recycled asphalt, or rubberized asphalt, and which is designed and intended to remain unsealed and uncovered indefinitely. This definition excludes public or private roads undergoing construction or resurfacing.

(15) "**Person"** means any individual, firm, association, organization, partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local government agency or public district and any officer or employee thereof, or the federal government and any officers or employees thereof to the extent authorized by federal law, or any other entity whatsoever which is recognized by law as the subject of rights and duties.

(16) **"Property Line"** means the boundaries of an area in which either a person causing the fugitive dust emissions or a person allowing such emissions has the legal control or possession. This may include all or portions of a legal parcel or parcels as defined by the San Diego County Assessor.

(17) **"Track-Out/Carry-Out"** means any bulk materials that adhere to and agglomerate on the exterior surfaces of motor vehicles and/or equipment (including tires), or are inadvertently carried out, and that fall onto a paved road, creating visible roadway dust.

(18) **"Visible Dust Emissions"** means any solid particulate matter that is visually detectable in the air without the aid of instruments other than corrective lenses.

(19) **"Visible Roadway Dust"** means any sand, soil, dirt, or other solid particulate matter which is visible upon paved public road surfaces and which can be removed by a vacuum sweeper, or a wet sweeper under normal operating conditions.

(d) **STANDARDS**

(1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60 minute period.

(2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:

(i) be minimized by the use of any of the following or equally effective track-out/carry-out and erosion control measures that apply to the project or operation: track-out grates or gravel beds at each egress point, wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks: using secured tarps or cargo covering, watering, or treating of transported material; and

(ii) be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM10-efficient street sweepers certified to meet the most current South Coast Air Quality Management District Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

APPENDIX C

IMPORT SOIL SAMPLING REQUIREMENTS

Information Advisory
Clean Imported Fill Material

October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Executive Summary

This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed. It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.

Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.dtsc.ca.gov.

Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contamination and/or appropriate for the proposed use, the use of that material as fill should be avoided.

Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

**The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	**Samples per Volume**
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If

metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

Alternative Sampling

A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all compounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

For further information, call Richard Coffman, Ph.D., R.G., at (818) 551-2175.

APPENDIX D

FIELD PROCEDURES

APPENDIX D

FIELD PROCEDURES

Drilling and Soil Sampling Procedures

1. Borings will be drilled using a truck-mounted drill rig equipped with nominal 6-inch hollow-stem augers or using direct-push equipment. Drilling services will be provided by a State-licensed drilling contractor.

2. Augers will be steam-cleaned prior to the drilling.

3. Soil cuttings from the drilling operations will be stored on-site in Department of Transportation (DOT)-approved 55-gallon drums, pending disposal disposition. The drums will be labeled with the boring designation from which the soil was collected, date, and project number.

4. Soil descriptions, in general accordance with the Unified Soil Classification System, sample type and depth, and related drilling information, will be recorded on a boring log under the supervision of a California Professional Engineer or Geologist from Enercon Services, Inc. (ENERCON).

5. Soil samples will be collected using a split-barrel modified California sampler at approximately 5 feet below the ground surface (bgs) and at approximate 5-foot-depth intervals thereafter and continue to the bottom of the boring or at significant changes in lithology. Some samples may be collected at shallower depths.

6. The sampler will be washed between sampling intervals, using a bristle brush, with an Alconox solution (an inorganic detergent); followed by two tap water rinses. The sampler will be dried by air or with a paper towel prior to being used for sampling.

7. Soil samples will be collected (at each sample interval) in three 6-inch-long stainless steel or brass sampling rings inside the sampler. Prior to initiation of the field program, the sample rings will be cleaned and dried in a similar fashion as described above in item 6.

8. The sampler will be driven using a 140-pound hammer (approximate weight) dropping approximately 30 inches. The number of blows (blow count) required to advance the sampler 18 inches will be recorded on the boring log.

9. Following retrieval of the sampler, the first 6-inch-long ring from the shoe of the sampler will be removed from the sampler; the ends will be covered with Teflon and capped with PVC end caps. The sample will be labeled with the sample number, collection date, and project number and will be retained for potential laboratory analysis.

10. The soil in the second sample tube from the shoe of the sampler will be used to describe the soil, measure volatile organic compounds (VOCs) using a photoionization detector (PID) equipped with an 11.7 electronvolt (eV) bulb, and collect a sample using EPA Method 5035. Following retrieval of the sample ring, a plastic syringe will be used to collect three samples of approximately 5 grams of soil. The first two soil samples will be ejected into a pre-weighed, laboratory-supplied, 40-milliliter, VOA vial containing sodium bisulfate. One additional sample weighing approximately 5 grams of soil will be collected using the syringe and ejected into a VOA vial containing methanol. A new syringe will be used for each sampling interval.

Approximately half of the remaining soil in the ring will be removed and placed in a Ziploc bag. The bag will then be agitated and set aside for approximately 15 to 30 minutes to allow organic vapors, if present, to accumulate in the void space (headspace) of the sample tube. The headspace will then be “sniffed” using the PID. The measurements will be considered in the selection of soil samples for laboratory analyses. The PID will be calibrated daily as per the manufacturer’s specifications.

11. The borings will be backfilled with bentonite grout or hydrated granular bentonite to ground surface.

Soil Sampling from Excavations, Test Pits, or Stockpiles

1. Soil samples will be collected from excavations, test pits, and stockpiles using a backhoe bucket or clean spade. The samples will be placed into 4-ounce glass jars supplied by the laboratory or stainless-steel rings with PVC end caps.

2. Samples to be chemically analyzed for total petroleum hydrocarbons as gasoline (TPHg) or VOCs will be collected in accordance with EPA Method No. 5035, as described above.

Groundwater Monitoring Well Installation and Development Procedures

1. Monitoring well decommissioning and installation permits will be obtained for the groundwater monitoring wells from the Los Angeles County Department of Public Health (LACDPH. The pilot borehole and well construction will be completed by a state-licensed C-57 drilling company with oversight and direction from a California Professional Engineer or Geologist from ENERCON.

2. The pilot borings will be drilled using a truck-mounted drill rig equipped with nominal 8-inch hollow-stem augers. Augers will be steam-cleaned prior to the drilling.

3. Soil cuttings from the drilling operations will be stored on-site in DOT-approved 55-gallon drums, pending disposal disposition. The drums will be labeled with the boring designation from which the soil was collected, date, and project number. Based on chemical analysis, the soil will be disposed of at a licensed disposal facility or recycled at a licensed recycling facility.

4. Soil descriptions, in general accordance with the Unified Soil Classification System, sample type and depth, and related drilling information, will be recorded on a well log.

5. Soil samples will be collected using a split-barrel modified California sampler at approximately 5 feet bgs and at approximate 5-foot-depth intervals thereafter and continue to the bottom of the boring or at significant changes in lithology. Some samples may be collected at shallower depths.

6. The sampler will be washed between sampling intervals, using a bristle brush, with an Alconox solution (an inorganic detergent); followed by two tap water rinses. The sampler will be dried by air or with a paper towel prior to being used for sampling.

7. The sampler will be driven using a 140-pound hammer (approximate weight) dropping approximately 30 inches. The number of blows (blow count) required to advance the sampler 18 inches will be recorded on the boring log.

8. Following retrieval of the sampler, the first 6-inch-long ring from the shoe of the sampler will be removed from the sampler; the ends will be covered with Teflon and capped with PVC end caps. The sample will be labeled with the sample number, collection date, and project number and will be retained for potential laboratory analysis. Samples to be chemically analyzed for TPHg or VOCs will be collected in accordance with EPA Method No. 5035, as described above.

9. The wells will be constructed of flush-jointed 2-inch inside diameter (ID) threaded Schedule 40 PVC casing. The 0.020-inch machine-slotted screen width and No. 2/12 sand filter pack will be used. The size of the slotted screen interval and filter pack may change based on site lithological conditions.

10. The bottom of the well casing will be placed approximately 10 feet below the groundwater table. The wells will be screened from the bottom of the wells to approximately 5 feet above the groundwater level. Blank PVC casing will be used to construct the remainder of the wells to the ground surface.

11. The well casings will be installed inside the 8-inch hollow-stem augers.

12. Prior to beginning the placement of the filter pack, the casing will be suspended in the annulus of the auger, a few feet of sand filter pack material will be poured into the annulus, the augers will be lifted 2 to 4 feet, and a few feet of sand filter pack material will be poured into the annulus again. The augers will be lifted in 2- to 4-foot segments and sand filter pack material will be placed each time until the sand backfill is approximately 3 feet above the top of the screen.

13. Prior to the placement of the pelletized bentonite zone, the wells will be surged with a surge block for approximately 15 minutes to enable settling of the filter pack. If it becomes necessary, additional filter pack will be added.

14. An approximate 5-foot-thick pelletized bentonite zone will be placed immediately above the sand filter pack and will be hydrated with water.

15. A cement/bentonite grout will be determined in the annulus above the pelletized bentonite zone to a depth of approximately 2 feet bgs.

16. A traffic-rated well housing will be placed above the well casing and set in concrete. The well housing will be raised approximately 1 to 2 inches above the ground surface.

17. Prior to development, depth-to-groundwater in each well will be recorded to the nearest 0.01 foot using a conductance probe.

18. After a minimum of 72 hours has elapsed following installation, the wells will be developed by surging with a surge block and bailing using the drill rig, or by pumping with a submersible pump. Development will continue until a minimum of three casing volumes (approximately one well volume) of water has been removed or until the water from the well becomes clear, whichever occurred first. The wells will be developed at or near the recovery rate in an attempt to minimize the likelihood of cascading water.

19. Water recovered from the wells will be stored in DOT-approved 55-gallon drums on-site until analysis of the initial water samples is completed. Based on the analysis, the water will be disposed of at a licensed disposal facility or recycled at a licensed recycling facility.

20. The water-depth measuring point on the well casing will be noted with a small notch in the northern side of the casing and marked with indelible ink. The elevation of the top-of-casing at the notch will be surveyed to the nearest 0.01 foot relative to mean sea level by a licensed surveyor.

Groundwater Sample Collection Procedures

1. Groundwater purging and sampling procedures will generally follow the California Environmental Protection Agency document entitled Representative Sampling of Groundwater for Hazardous Substances Guideline Manual for Groundwater Investigations, dated July 1995 and revised in February 2008.

2. Field activities and equipment utilization will be recorded on field report forms.

3. The water level and depth to the bottom of each well will be measured twice to ensure accuracy using a conductance probe; the measurements will be taken at the established survey point and recorded to the nearest 0.01 foot. Prior to use, the probe will be rinsed in an Alconox solution (an inorganic detergent); followed by two tap water rinses.

4. The volume of water (in gallons) contained in the well casings was estimated using the following equation:

$$\text{Well Volume (gallons)} = \pi \times h \times 7.5 \times [0.3(r_2^2 - r_1^2) + r_1^2]$$

   Where r_1 equals the radius of the well casing, r_2 equals the radius of the borehole, h equals the height of the water in the well, $\pi = 3.14$, and 7.5 is approximately 1 cubic foot of water.

5. Prior to initiating a sampling program, the wells will be purged of standing water. A water sample will be collected following the removal of a minimum of one well volume (equivalent to approximately three casing volumes) of water and/or stabilization of pH, temperature, specific conductivity (i.e. specific conductance), oxidation reduction potential (ORP), dissolved oxygen, and turbidity readings as presented in the EPA guidelines for three subsequent measurements. This data will be collected using an in-line flow-through cell. Parameter readings will be obtained based on a specific volume of water purged. Depth to groundwater will also be monitored during purging activities to evaluate a sufficient pumping rate to avoid turbulent flow (i.e. reducing drawdown so recharging groundwater does not cascade vertically down the screen).

6. A 5-gallon bucket will be used to measure the volume of water removed.

7. A submersible pump with dedicated tubing will be used for purging and sampling each well. Groundwater samples will be collected from a discharge line from the submersible pump. A Y-fitting will be installed between the well head and the inlet of the in-line flow through cell. Groundwater samples will be obtained from this sampling point.

8. The submersible pump will be cleaned before sampling events at each well as outlined in Item No. 3 above.

9. Water will be discharged from the sampling line into the sample container. Discharge to the sample container will be conducted at a rate slow enough to minimize bubbling or significant agitation of the liquid. The sample container will be filled to the top and not overfilled. A small amount of purged groundwater will be placed into the sample bottle cap to “top-off” the VOA

prior to capping in an effort to eliminate headspace in the vial.

10. Samples will be collected in laboratory-supplied 40-milliliter glass vials with HCl preservative and Teflon septum lids.

Sample Handling

1. The soil and groundwater samples retained for chemical analyses will be placed in Ziploc bags and stored in an ice chest cooled, using ice, to a temperature of approximately 40 degrees Fahrenheit.

2. The samples will be delivered to a State-certified environmental laboratory within 24 hours of collection. Sample handling, transport, and delivery to the laboratory will be documented using chain-of-custody procedures, including the use of chain-of-custody forms.

Quality Assurance/Quality Control (QA/QC)

1. QA will be implemented to assess whether the data obtained are comparable and representative of actual field conditions. The QC checks will be controlled samples that will be introduced into the sample analysis stream and will be used to assess the performance of the laboratory and to evaluate the accuracy, precision, and completeness of the laboratory analytical procedures.

2. The QA/QC program will consist of the minimization of possible cross-contamination during sample collection and include decontamination of sampling equipment and the internal QA/QC procedures that will be conducted by the laboratory: laboratory blanks, laboratory surrogate spikes, and laboratory matrix spike samples.