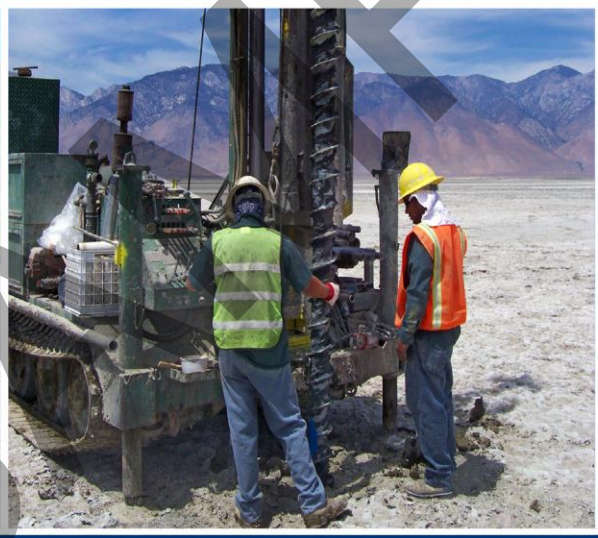
Site-Specific Health and Safety Plan

East 14th Street
Ashland, California 94704

Alameda County Public Works Agency
399 Elmhurst Street| Hayward, California

July 2, 2019 | Project No. 402322032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Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

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July 2, 2019
Project No. 402322032

Ms. Amber Lo
Alameda County Public Works Agency
399 Elmhurst Street
Hayward, California

Subject: Site-Specific Health and Safety Plan
for East 14th Street from
162nd Avenue to 172nd Avenue Improvement Project
Ashland, California

Dear Ms. Lo:

Attached is the Health and Safety Plan (HSP) prepared for the above referenced site. We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE

Forrest McFarland PG
Senior Environmental Geologist

Kristopher M. Larson PG
Principal Environmental Geologist

FSM/KML/

Distribution: Addressee

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TABLES (in Text)

APPENDIX

1 SITE DESCRIPTION

The project site is a greater than 4,000 linear foot stretch of E. 14th Street in Ashland, CA with commercial development. The project will consist of coring and hand augering with soil sample collection at 6 locations along the strip of roadway. The objective of this fieldwork is to classify soils as non-hazardous, CA hazardous or RCRA hazardous for disposal purposes. Soil samples will be analyzed for total petroleum hydrocarbons (TPH) as gasoline (TPHg), as diesel (TPHd) and as motor oil (TPHmo), volatile organic compounds (VOCs), SVOCs, Title 22 metals, polychlorinated biphenyls (PCBs), and polyaromatic hydrocarbons (PAHs), asbestos and hexavalent chromium.

2 SCOPE OF WORK

The purpose of our environmental consulting services will be to evaluate the subsurface conditions and provide soil disposal recommendations. Six borings will be advanced 2-5 feet bgs to collect shallow soil samples for the above-mentioned chemical analysis.

3 ORGANIZATION AND RESPONSIBILITIES

Personnel responsible for fieldwork are identified in Table 1.

Table 1– Responsible Personnel for the Site

Title/Responsibility	Name
Project Manager/Responsible for managing the project	Helen Hild
Field Team Leader/Responsible for leading the field team and implementing the task order	Forrest McFarland
Site Health and Safety Officer (SHSO)/ Responsible for site health and safety of field team	Forrest McFarland
Ninyo & Moore Corporate Safety and Health. Manager/Responsible for company health and safety including company field activities	Steve Waide, CIH
Client Representative/Responsible for managing the contract	James Yoo

4 HAZARD ANALYSIS

The physical hazards associated with this project will include vehicle traffic; noise; energized and rotating equipment; heavy equipment; steam-cleaning equipment; falling, slipping, and tripping;

manual lifting; heat stress; and general physical hazards. The following sections provide more information.

4.1 Subcontractor-Furnished Equipment Including Energized and Rotating Equipment

Heavy equipment will not be used on this project, but large supply trucks will be present. The subcontractor is responsible for proper and safe operation of all the equipment they bring to the site. Ninyo & Moore employees will not operate subcontractor-furnished equipment unless that equipment is expressly provided for use of Program personnel. This section does not prohibit use of power from subcontractor-provided generators.

Heavy equipment and equipment with rotating blades, such as jackhammer and drill-rig equipment, will be guarded where practicable to prevent accidental contact. Only experienced operators are allowed to work around rotating parts that cannot be adequately guarded. Personnel who must work around rotating equipment will wear the appropriate personal protective equipment and not wear loose-fitting clothes that could get caught.

Site personnel will not operate or handle asphalt coring equipment or heavy equipment owned by the subcontractor. The subcontractor will maintain and implement safety procedures according to their safety and health plan. Only qualified subcontractor personnel will operate equipment during field activities. The subcontractor will maintain in operating condition all appropriate safety devices on machinery and rotating equipment (e.g., backup alarms, emergency stops, and guards) at all times. The subcontractor will implement effective safety programs for use of this type of equipment.

4.2 Vehicle and Heavy Equipment Operation

Vehicles will only be operated in authorized areas. When moving equipment, caution should be exercised in order not to damage equipment or cause injury. When backing up heavy vehicles (larger than pickup trucks), passenger vehicles, or pickups with obscured rear vision, a guide will be used to direct the vehicle. Extra caution will be exercised during vehicle operation on dike roads, industrial areas, and other close spaces. Personnel directing traffic will wear orange vests. Each vehicle will be equipped with a minimum of one fire extinguisher rated 3A:40B:40C.

4.3 Noise

Work in direct proximity to heavy equipment or asphalt coring operations can subject workers to noise exposures in excess of allowable limits. Personnel who operate or must work in noisy conditions will be required to wear hearing protection (ear plugs or muffs) to reduce their exposure

to excessive noise. Persons exposed to noise in excess of 85 decibels (estimated) will be required to wear hearing protection.

4.4 Falling, Slipping, and Tripping

Work zone surfaces will be maintained in a neat and orderly state. Foot traffic will avoid areas where materials are stored on the ground. Tools and materials will not be left randomly on surfaces where not in direct use. The field supervisor will assure that the work area around each asphalt coring and drilling operation is maintained in a neat and orderly state and that water used during coring activities is promptly collected.

4.5 Manual Lifting Techniques

During any manual material-handling tasks, personnel will be trained to lift with the force of the load suspended on their legs and not on their backs. An adequate number of personnel or an appropriate mechanical device must be used to safely lift or handle heavy equipment. When heavy objects must be lifted manually, workers will keep the load close to the body and will avoid any twisting or turning motions to minimize stress on the lower back.

4.6 Heat Stress

Heat stress is an important health consideration in warm weather. High temperatures, in conjunction with wearing personal protective clothing, may aggravate heat-stress problems. Standard measures, including designating a shaded rest area, taking frequent rest breaks, and performing heat-stress monitoring of workers, may be used to minimize heat-stress-related problems. A readily available supply of liquids, such as water and fluids containing electrolytes, will be available at the work site to replenish body fluids. Visual observation of workers by the Site Health and Safety Officer (SHSO) for heat-stress-related signs and symptoms, and body core temperature monitoring may be performed when outside temperatures exceed 70 degrees Fahrenheit and impermeable clothing is being worn, when outside temperatures exceed 90 degrees Fahrenheit in street clothes, or whenever other conditions warrant. Signs and symptoms of heat stress include profuse sweating, headache, skin flushing, dizziness, confusion, and rapid heart rate. Workers exhibiting a body core temperature of 100.4 degrees Fahrenheit or greater (measured at the ear drum) will be removed to a cooler area or activity until body core temperature returns to below 99 degrees Fahrenheit.

If persons exhibiting heat-stress symptoms are left untreated, the condition can elevate to heat stroke. Heat stroke is typically manifested by hot, dry skin with a body core temperature of 104 degrees Fahrenheit or greater. Heat stroke can be fatal if treatment is delayed. Therefore, persons exhibiting heat-stroke symptoms need to have their core temperature reduced immediately by

use of cold packs, cold water wipes, or immersion. Heat-stroke victims need to be transported to a professional medical facility immediately after the victim's core temperature has been reduced or while the victim's core temperature is being reduced.

4.7 General Physical Hazards

Any site may include areas that are poorly drained, rough or uneven terrain, depressed areas, protruding objects such as uneven curbs, or debris. The SHSO will assure that a careful pre-work walkover is made of all work areas and potential access or egress routes. Unsafe areas may be flagged or taped by the SHSO and will be identified to all personnel.

4.10. Buried Utilities

Buried utilities such as water, natural gas, or electrical can be encountered in the subsurface. These utilities present another source of a potential hazard. All work areas will be cleared by a private line locator, the SHSO or designated safety coordinator prior to soil-intrusive work.

4.11. Solar Radiation

The SHSO will encourage site personnel working out of doors to utilize covering or sunblock preparations to minimize the harmful effects of the sun's rays on the skin.

4.12. Lifting/Twisting Injuries

The use of hand augers exposes the worker to potential twisting injuries to the back, shoulders and neck. Common-sense safety precautions will be followed such as frequent rest breaks, proper lifting technique, and careful ergonomic practices.

4.13. Industrial Hazards

Project activities may expose personnel to various industrial hazards. The following sections present a summary of the common industrial hazards expected and general methods that will be utilized by the SHSO to assure worker safety.

The SHSO or designee will observe all operations, particularly asphalt coring operations, to oversee industrial safety hazards such as pinch-points, eye hazards and airborne dust.

To prevent injuries from industrial hazards, engineering controls, administrative procedures (e.g., lockout-tagout procedures), and equipment-guarding techniques will be implemented. In addition, personal protective equipment (PPE) will be used when engineering controls alone cannot reduce the risk of exposure to hazards to acceptable limits.

Before the start of hand augering activities, the SHSO will contact utility companies and the property owner to ensure underground installations and utilities are located. Make sure underground installations and utilities are located, protected, supported or removed as necessary to safeguard employees. Exposure to potentially contaminated soil presents multiple hazards to workers including chemical exposure and fire and explosion hazards.

4.14.2 Pipelines

Buried pipelines containing natural gas and/or petroleum fuels may be present on urban industrial sites. These pipelines present another source of a potential fire and explosion hazard. All work areas will be cleared by the SHSO or designated safety coordinator prior to soil-intrusive work or movement of heavy equipment into or through utility corridors. Site personnel will obtain written clearances that set forth the detailed requirements for obtaining clearance to excavate at the site. In addition, when locations of buried lines are uncertain, excavation will always be performed by hand until the utility is located or the area is cleared. The responsible installation operations or maintenance department will review the location of emergency shutoff valves with project personnel at the pre-job meeting or tool box safety meeting prior to working in an area of concern.

4.16. Chemical Hazards

This section describes the toxicological (health) hazards associated with exposure to organic and inorganic chemicals and metals during the project. Chemicals which are expected to be encountered are discussed in the following sections.

In dry, arid desert conditions, exposure may occur principally by inhalation of contaminated particulates. Exposure to vapors can occur if trapped volatiles are exposed to the warm conditions once the material is exposed to the atmosphere.

4.16.1. Crystalline Silica

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. cristobalite and tridymite are two other forms of crystalline silica. All three forms may become respirable size particles when workers chip, cut, drill, or grind objects that contain crystalline silica. Crystalline silica has been classified as a human lung carcinogen. Additionally, breathing crystalline silica dust can cause silicosis, which in severe cases can be disabling, or even fatal. The respirable silica dust enters the lungs and causes the formation of scar tissue, thus reducing the lungs' ability to take in oxygen. There is no cure for silicosis. Since silicosis affects lung function, it makes one more susceptible to lung infections like tuberculosis. In addition, smoking causes lung damage and

adds to the damage caused by breathing silica dust. Where the proper use of water is being performed exposure monitoring is not anticipated.

4.7.1 Polynuclear Aromatic Hydrocarbons

Polynuclear aromatic hydrocarbons (PAHs) are produced from coal tar and other sources and are used in a variety of industrial products. PAH is a recognized human carcinogen. Exposure by any route to PAH and other recognized human carcinogens will be maintained at the absolute practicable minimum level.

4.7.2 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs), also referred to as Aroclors, are synthetic industrial products that have been commonly used as cooling fluid and for electrical insulation. They are commonly found in fluorescent light ballasts and transformers and may be encountered during renovation or demolition activity. PCBs are common contaminants of oily type waste and are typically found in industrial areas and dumps. PCBs are recognized environmental pollutants and suspected human carcinogens. Short-term exposure has been known to cause skin problems including chloracne. Work involving exposure to PCBs sometimes requires special precautions and medical evaluation. Proper use of PPE at the site is expected to prevent significant exposure.

4.16.2 Title 22 Metals

A variety of metals are encountered as contaminants at various sites. Some heavy metals are highly toxic; others are also recognized human carcinogens. Because these materials are not volatile unless highly heated, control by proper use of PPE and personnel hygiene practices will prevent significant exposure. There are many individual metals causing varying degrees of illness based on acute and chronic exposures. Some heavy metals – such as cobalt, copper, iron, manganese, molybdenum, vanadium, strontium, and zinc – are essential to health in trace amounts. Others are non-essential and can be harmful to health in excessive amounts. These include cadmium, antimony, chromium, mercury, lead, and arsenic – these last three being the most common in cases of heavy metal toxicity.

Some heavy metals such as lead can affect the nervous system, gastrointestinal system, cardiovascular system, blood production, kidneys, and reproductive system.

Symptoms of heavy metal toxicity include mental confusion, pain in muscles and joints, headaches, short-term memory loss, gastrointestinal upsets, food intolerances/allergies, vision problems, chronic fatigue, and others. There are OSHA Permissible Exposure Limits for a wide number of metals but the most common metal of concern is lead and is typically

used as the field indicator for metals exposures. The OSHA Permissible Exposure Limit for lead is currently set at 0.05 mg/m3 with an action level of 0.03 mg/m3. Significant exposure to metals is not anticipated during this work based on the type of sampling being performed.

4.16.3 TPH

Total petroleum hydrocarbons (TPH) is a term used to describe a large family of several hundred chemical compounds that originally come from crude oil. TPH is a mixture of chemicals, but they are all made mainly from hydrocarbons. Some chemicals that may be found in TPH are hexane, jet fuels, mineral oils, benzene, toluene, xylenes, naphthalene, and fluorene, as well as other petroleum products and gasoline components. Some of the TPH compounds can affect your central nervous system. One compound can cause headaches and dizziness at high levels in the air. Another compound can cause a nerve disorder called "peripheral neuropathy," consisting of numbness in the feet and legs. Other TPH compounds can cause effects on the blood, immune system, lungs, skin, and eyes.

Animal studies have shown effects on the lungs, central nervous system, liver, and kidney from exposure to TPH compounds. Some TPH compounds have also been shown to affect reproduction and the developing fetus in animals. The International Agency for Research on Cancer (IARC) has determined that one TPH compound (benzene) is carcinogenic to humans. IARC has determined that other TPH compounds (benzo[a]pyrene and gasoline) are probably and possibly carcinogenic to humans. Most of the other TPH compounds are considered not to be classifiable by IARC.

4.16.4 VOCs

VOCs are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Health effects may include eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Some organics can cause cancer in animals; some are suspected or known to cause cancer in humans. Key signs or symptoms associated with exposure to VOCs include conjunctival irritation, nose and throat discomfort, headache, allergic skin reaction, dyspnea, declines in serum cholinesterase levels, nausea, emesis, epistaxis, fatigue, dizziness.

The ability of organic chemicals to cause health effects varies greatly from those that are highly toxic, to those with no known health effect. As with other pollutants, the extent and nature of the health effect will depend on many factors including level of exposure and length of time exposed. Eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment are among the immediate symptoms that some people have

experienced soon after exposure to some organics. Many organic compounds are known to cause cancer in animals; some are suspected of causing, or are known to cause, cancer in humans. Benzene is usually the principal concern and the basis for establishing action levels for continuous monitoring equipment in the presence of VOCs. The current OSHA PEL for benzene is 1 ppm.

4.17. Biological Hazards

The SHSO will screen the area for biological hazards during the initial site visit and will discuss any problems with field personnel during the pre-work review. Multiple biological hazards are present at the site. The most common hazards anticipated are discussed below.

4.17.1. Insects

Bees, wasps, yellow jackets, black widow spiders, scorpions, and brown recluse spiders present a potential hazard on this project, especially so for those individuals sensitized to those bites or stings. Prior to initial assignment on this project, personnel with known allergic responses to insect stings will be identified and field supervisors made aware of this condition. These personnel will also carry an antidote kit if so advised by their physician. The SHSO will confirm that the antidote kit is accessible and notify the emergency medical service providers in the event of any incident.

In all cases, a victim suspected of being bitten by either a black widow or brown recluse spider, or stung by a scorpion will receive medical attention. The venom from the brown recluse spider is capable of causing coma and kidney failure in its victim.

Protection methods against insects may be employed, such as the use of protective clothing or insect repellents, as well as extermination measures, and training in recognition and identification of harmful insects.

4.7.2.1 Snakes

Personnel should be extremely careful when walking through tall grass, rocks, or debris. If a rattlesnake is encountered, slowly and quietly back away from the snake. Inform all personnel at the site of its location. Do not attempt to move or kill a snake because certain species of rattlesnake are protected under state and federal laws. In the event of snakebite, immediately summon emergency medical services and notify the SHSO. Do not try to move the affected limb; instead, immobilize the injured area, keeping it lower than the heart if possible, and wait for transportation. Do not apply ice. Do not cut the wound. Do not apply a tourniquet. The venom should be wiped off the skin since venom

will attack intact skin. If you know the victim cannot receive medical care within 30 minutes, consider suctioning the wound using a snakebite kit.

5 SITE CONTROL

For intrusive field activities such as hand augering, precautions shall be taken to assure that only authorized personnel with the proper training and PPE enter work areas. In these areas, access is controlled with caution tape and/or barricades. Proper training would include decontamination, hazard recognition, and safe operating procedures.

Prior to starting work at the site, a briefing will be held prior to initiating site activity and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The pre-entry briefing will be held before the start of actual work. The briefing will include representatives of the Client (if present), the driller, and Ninyo & Moore employees and will include a discussion of Ninyo & Moore's Health and Safety Plan (HSP) and the means, methods, devices, processes, practices, conditions, or operations which the Ninyo & Moore intends to use in providing a safe and healthy place of employment.

6 DECONTAMINATION

Decontamination techniques include, but are not limited to, removing dust, debris, and soil from equipment that has come into contact with soil at the Site. Decontamination will include instructions for decontamination of equipment and waste storage guidelines.

6.1 Decontamination of Equipment

Ninyo & Moore shall decontaminate equipment, including the removal of accumulated dirt and other contaminated material to allow collection and containment of dirt and other contaminated material. Decontamination methods may include dry methods, such as scraping and brooming, or wet methods, such as triple rinsing.

If during soil handling activities field staff encounters previously unknown contamination field staff shall decontaminate personnel, equipment, and transportation vehicles that have contacted potentially impacted soil or groundwater before the personnel, equipment, and transportation vehicles move to another area of the site to continue work.

Ninyo & Moore personnel will thoroughly decontaminate equipment used during soil boring and soil handling operations.

6.3 Waste Storage

If decontamination wastes are to be stored on-Site, Ninyo & Moore personnel shall temporarily store wastes in a contained area on-Site.

7 MEDICAL SURVEILLANCE REQUIREMENTS

Site personnel will be required to participate in their employer's medical surveillance program before being permitted to work on location. The medical surveillance program for Ninyo & Moore employees is described in the Ninyo & Moore Injury and Illness Prevention Program. Subcontractor medical surveillance programs are described in respective company documents. Subcontractors will be required to demonstrate, by document submittal, their maintenance of Occupational Safety and Health Administration (OSHA)-compliant programs, including Title 8 California Code of Regulations, Section 5192, and to maintain records as required by the applicable contract. Specific exceptions to the medical surveillance requirements may be granted by the SHSO for site access by specialty subcontractors performing non-intrusive activity. If Level C becomes necessary on site, an appropriate exclusion zone will be established and personnel without medical clearance for respiratory protection or the appropriate PPE will be prohibited entry.

8 HAZARD MONITORING

While air monitoring for contaminants such as asbestos or lead is not anticipated during this survey, the SHSO reserves the right to require airborne monitoring at their discretion. Where air monitoring is performed, all monitoring equipment shall be calibrated, operated, and maintained according to the manufacture's specification. At a minimum, equipment shall be "field calibrated" at the start and end of each work day or whenever equipment operation is questionable.

Tables 1 and 2 below represent the appropriate action level and frequency of monitoring based on the ambient temperature which will be taken with the noted parameters for heat stress.

Table 2 – Chemical/Physical Monitoring Requirements

Scope of Work Task	Chemical Hazard	Instrument	Responsible Group	Initial Frequency
Asphalt cutting/coring activities	Dust, noise, silica	Visual Observation, Combustible Gas Indicator where necessary; Silica monitoring at SHSO discretion	SHSO	Start of task, continuous, if needed
Soil sampling activities	TPH, Metals, PAHs, PCBs, Organic vapor	PID, Visual observation	SHSO	Start of task, continuous, if needed

Table 2 – Chemical/Physical Monitoring Requirements

Scope of Work Task	Chemical Hazard	Instrument	Responsible Group	Initial Frequency
Decontamination of equipment	TPH, particulate	Visual Observation	SHSO	N/A
	Organic vapor	PID	SHSO	at SHSO discretion

Notes:
N/A – Not Applicable
PID – Photo-ionization Detector
SHSO – Site Health and Safety Officer
NEA – Negative Exposure Assessment

Table 3 – Monitoring Methods and Action Levels for Uncharacterized[1] Mixtures Using Screening Survey Instruments

Hazard	Method	Action Level[2]	Protection Action
Dust	Visual observation; Total and respirable silica monitoring unless NEA exists	No visible dust during asphalt coring operations	Particulate mask (P100 and engineering controls will be used to mitigate dust (i.e., wet asphalt cutting methods).
Total Organic Vapor	PID[3]	1 to 2 ppm[5] above background	Engineering controls will be used to try and maintain the immediate work area below 1 ppm.
		> 5 ppm	Air purifying respirator, full face, Level C protection with organic vapor (OV) cartridges, personnel monitoring required to I.D. contaminants.
		> 10 ppm > 25 ppm	Supplied air protection, Level B STOP WORK

Notes:
1 Carcinogenic and highly toxic materials not verified absent from atmosphere
2 All action levels are readings observed above background. Verify absence of highly toxic compounds as necessary, e.g. vinyl chloride, methylene chloride, benzene etc.
3 photoionization detector
4 flame ionization detector
5 parts per million

Heat stress action levels and monitoring are noted in Tables 4 and 5, respectively.

Table 4 – Action Levels for Heat Stress

Type Measurement	Action Level	Action
Ear insertable core temperature	100.4° F or greater	Remove from work
Ear insertable core temperature	<99° F	Return to work

Table 5 – Frequency of Physiological Monitoring for Fit and Acclimated Workers

Adjusted Temperature[1]	Normal Work Ensemble[2] After Each:	Impermeable Ensemble After Each:
90° F (32.2° C) or above	45 minutes of work	15 minutes of work
86.5° F - 90° F (30.8° C - 32.2° C)	60 minutes of work	30 minutes of work
82.5° F - 86.5° F (28.1° C - 30.8° C)	90 minutes of work	60 minutes of work
76.5° F - 82.5° F (25.3° C - 28.1° C)	120 minutes of work	90 minutes of work

Table 5 – Frequency of Physiological Monitoring for Fit and Acclimated Workers

Adjusted Temperature[1]	Normal Work Ensemble[2] After Each:	Impermeable Ensemble After Each:
72.5° F - 76.5° F (22.5° C - 25.3° C)	150 minutes of work	120 minutes of work

Notes:

[1] Calculate the adjusted air temperature (Ta adj) with the following equation: Ta adj(°F) = Ta(°F) + (13 X percent sunshine 100). Measure air temperature (Ta) with a standard mercury-in-glass thermometer with the bulb shielded from radiant heat. Estimate the percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to attenuate shadow (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadow).

[2] A normal work ensemble consists of coveralls or other cotton clothing with long sleeves and pants.

9 PERSONAL PROTECTIVE EQUIPMENT

Based on an evaluation of potential hazards, the following level of PPE will be mandated for the listed tasks:

Table 6 – Personal Protective Equipment (potential or actual chemical exposure)

Task	Hazard	Level	Body	Respirator	Skin	Other
Asphalt coring activities	Minimal chemical exposure, noise, solar radiation	D*	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Full-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded or at discretion of SHSO	Appropriate gloves	Hard hat, safety glasses, hearing protection, steel-toed boots
Soil sampling activities	Minimal chemical exposure, noise, solar radiation	D*	At SHSO discretion, tyvek suits, taped at the cuffs and ankles	Half-face respirator with high-efficiency particulate air (HEPA) and organic vapor (OV) cartridges if action levels exceeded	Appropriate gloves	Hard hat, safety glasses, hearing protection, steel-toed boots

Note:

N/A – not applicable

*Work will be initiated at Level D. PPE will be upgraded to Level C based on results of field observations.

10 EMPLOYEE TRAINING ASSIGNMENTS

A matrix summarizing training requirements for Ninyo & Moore personnel, subcontract supervisors and personnel, visitors, and vendors is presented in Table 7.

Table 7 – Training Assignment Matrix

Category	40-Hour Basic	8-Hour Refresher	24-Hours Experience	8-Hour Supervisor	Site Specific Safety Orientation	First Aid/CPR
Ninyo & Moore Employee	X	X	X		X	X
Ninyo & Moore or Subcontractor Supervisor	X[2]	X[2]	X	X[3]	X	X[1]

Subcontractor	X[2]	X[2]	X	X
Visitor	X[5]	X[5]	X[6]	X[4]
Vendor	X[5]	X[5]	X[6]	X[4]

Notes:

1 At remote locations, (emergency responders more than 10 minutes away) a minimum of two people will be on-site, during fieldwork, who have a valid certificate in basic first aid/CPR from the American Red Cross (or equivalent) documented training.
2 The requirement for 40-hour basic and 8-hour refresher training for certain non-intrusive work shall be made on a case-by-case basis by the Corporate Safety Manager.
3 Employees may take supervisor training in lieu of standard refresher training.
4 A site-specific safety orientation must be given to all visiting/working personnel.
5 For vendors/visitors requiring controlled area access to work on contaminated equipment.
6 Not required if escorted.

11 SPILL PREVENTION AND CONTROL MEASURES

11.1 Preventive Measures

- As applicable, inspect all containers upon delivery to the site for visible defects and ensure that each drum or container includes a re-sealable lid.
- Perform weekly inspections of any storage areas.
- Select flat areas for temporary storage away from high-traffic zones and storm or sewer drains.

11.2 Spill Containment Measures

The following actions will be taken by Ninyo & Moore field personnel assigned to the field activities in the event of a spill:

- The Site Coordinator (field team leader) and SHSO are to be notified immediately;
- Workers not involved in spill containment and/or cleanup shall evacuate the immediate area and designated emergency response personnel attired in appropriate PPE (see Section 9), shall proceed to the spill area with a spill cleanup and control kit, including absorbent materials;
- Attempts shall be made to stop the source(s) of spillage immediately;
- The SHSO shall monitor for exposure to chemicals or hazardous substances during spill cleanup work and shall stay at the spill area until the area has been cleared, inspected, and readied for reentry. A spill incident report shall be prepared by the SHSO;

11.2.1 Record Keeping and Notifications

The SHSO shall thoroughly document the spill in an Incident Report which will be forwarded to the Corporate Safety Manager and Project Manager. Records of all hazardous materials releases shall be maintained with the project files and the facility operating record. The Project Manager will make any necessary notifications to off-site authorities and he and the

Safety Manager will approve the reentry to the site for routine use and will issue a final release report pertaining to cleanup of the area.

12 EMERGENCY RESPONSE

13.1. General

In the event of a medical emergency or fire during fieldwork at the construction areas at the site, the standard "911" emergency telephone number shall be called from the on-site mobile phone or any base phone. A mobile telephone will be available during all field activities. On a daily basis, and at each work location, the SHSO and/or field team leader will verify that mobile phones are operational. Standard hand signals will be reviewed at the site tail-gate safety meeting prior to beginning work.

Pertinent personnel phone numbers are listed in Section 3, Table 1 – Responsible Personnel for the Site. Emergency facility locations and phone numbers are listed below. A hospital location map is indicated in Appendix A. All project vehicles shall maintain a copy of this section (Section 11) together with the appropriate emergency map at all times, in a readily accessible location.

Head northwest on E 14th St toward 164th Ave for 2.1 miles

Turn left onto 138th Ave 0.2 miles

Destination is on the left.

San Leandro Hospital Emergency Room

13855 E 14th St, San Leandro, CA 94578

(510) 357-6500

Table 8 – Emergency Phone Numbers (to be posted by Site Health and Safety Officer at all phone locations)

Emergency	Number	Contact	Notes
Medical, Fire or Police	911	Emergency Operator	
Medical Center (to be used only if local hospital/clinic will be first contact)	(510) 357-6500	San Leandro Hospital Emergency Room 13855 E 14th St, San Leandro, CA 94578	

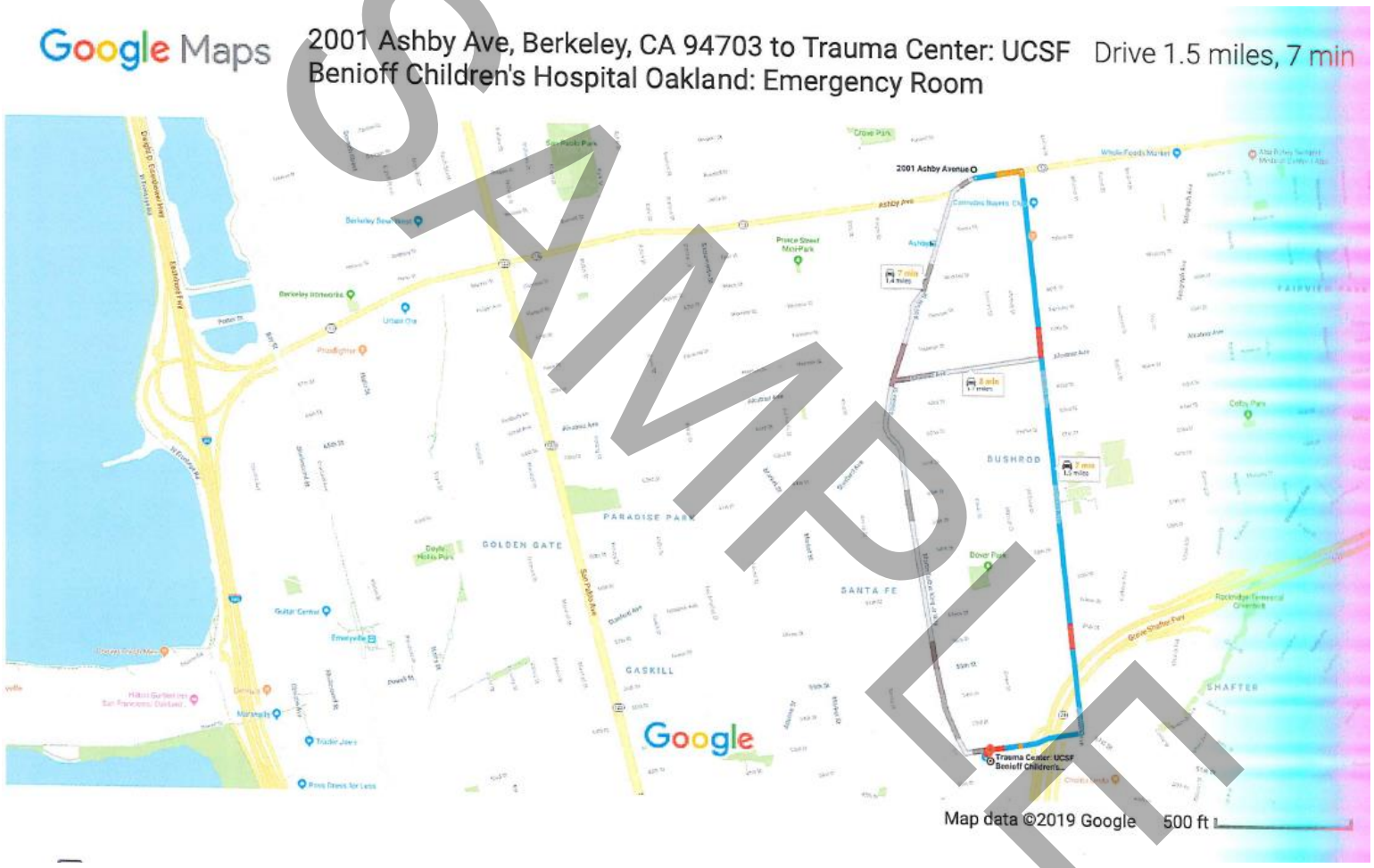
13 SIGNATURES

All site personnel are required to read the above plan and by signing below, acknowledge that they are familiar with its provisions.

	Print Name	Signature/Date
Ninyo & Moore Personnel		
Field Team Leader/SHSO		
Field Team Members		
Field Team Members		
Field Team Members		
Field Team Members		
Field Team Members		
Contractors		
Client/Agency Personnel		

APPENDIX A

Hospital Location


Google Maps
2001 Ashby Ave, Berkeley, CA 94703 to Trauma Center: UCSF Benioff Children's Hospital Oakland: Emergency Room
Drive 1.5 miles, 7 min
2001 Ashby Avenue
Trauma Center: UCSF Benioff Children's...
PARADISE PARK
GOLDEN GATE
GASKILL
SANTA FE
BUSHROD
SHAFTER
Google
Map data ©2019 Google
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Geotechnical & Environmental Sciences Consultants

2020 Challenger Drive, Suite 103 | Alameda, California 94501 | p. 510.343.3000

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