Soil Management Plan

Wood Middle School

420 Grand Street

Alameda, Alameda County, California 94501

Terracon Project Number: NB257123

EnviroStor Case No. 60003799

May 27, 2025

Prepared for:
Alameda Unified School District
Alameda, California



Prepared by:
Terracon Consultants, Inc.
Sacramento, California

Terracon

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May 27, 2025

Alameda Unified School District
2060 Challenger Drive
Alameda, California 94501

Attn: Ms. Ruth Boyd
P: (510) 827-2287
E: rboyd@alamedaunified.org

Re: Soil Management Plan
Wood Middle School
420 Grand Street
Alameda, Alameda County, California 94501
Terracon Project No. NB257123
EnviroStor Case No. 60003799

Dear Ms. Boyd:

Terracon Consultants, Inc. (Terracon) is pleased to submit the Soil Management Plan (SMP) to be implemented during the construction phase of the Wood Middle School project located at 420 Grand Street in Alameda, Alameda County, California (the Site). This SMP is intended as a supporting guide. It cannot be all inclusive or anticipate every future condition involving workers or construction involving on-site soils. The SMP serves as a risk management advisory to persons and contractors involved with the earth-working activities for development at the Site. In the event that Site conditions are encountered that differ from those presented herein, Terracon should be notified for further evaluation of environmental conditions or human health exposure risk.

Should you have any questions or require additional information, please do not hesitate to contact the undersigned at (916) 928-4690.

Sincerely,
Terracon Consultants, Inc.

Prepared by:

Sadie Bodiford
Project Manager

Reviewed by:

Jeremy Mott, MS, CIH
Authorized Project Reviewer



Table of Contents

1.0 INTRODUCTION 7
1.1 Site Description 7
1.2 Background Information 8
1.2.1 Site History 8
1.2.2 Soil Characterization 8
1.3 Purpose 9
2.0 EXCAVATED SOIL CHARACTERISTICS 9
3.0 NOTIFICATIONS AND PRE-EXCAVATION ACTIVITIES 10
3.1 General Notifications 10
3.2 Notifications for Impacted Soil 11
3.3 Worker Education and Safety 12
4.0 POTENTIAL CONTAMINANT SOURCES 12
5.0 POTENTIAL EXPOSURE PATHWAYS AND RECEPTORS 12
6.0 SOIL MANAGEMENT 13
6.1 Waste Minimization 13
6.2 Changed Conditions and Soil Stockpiling 13
6.3 Waste Characterization and Disposal or Reuse 13
7.0 WATER MANAGEMENT 14
8.0 PROJECT CONTROLS 15
8.1 Dust Control Measures 15
8.2 Fugitive Vapors 15
8.3 Tracking Sediment Offsite 15
9.0 DOCUMENTATION 16
10.0 LIMITATIONS 16

APPENDICES

APPENDIX A Exhibit 1: Topographic Map
Exhibit 2: Site Diagram

APPENDIX B Community Air Monitoring Plan

Environmental Abbreviations / List of Acronyms

AIN	Assessor's Identification Number
bgs	below ground surface
BMPs	best management practices
CalEPA	California Environmental Protection Agency
CAM-17 Metals	California Administrative Manual metals
CARB	California Air Resources Board
COCs	contaminants of concern
CrVI	hexavalent chromium
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EP	environmental professional
EPA	Environmental Protection Agency
ESLs	environmental screening levels
GC	general contractor
HAZWOPER	Hazardous Waste Operators and Emergency Response
Honeywell	Honeywell International, Inc.
HASP	health and safety plan
IMP	Infrastructure Master Plan
MWH	MWH Americas, Inc.
OSHA	Occupational Safety and Health Administration
OVA	organic vapor analyzer
PID	photoionization detector
PPE	personal protective equipment
ppmv	parts per million by volume
RCRA	Resource Conservation and Recovery Act
SCAQMD	South Coast Air Quality Management District
SMP	Soil Management Plan
STLC	Soluble Threshold Limit Concentration
SWL	Sherman Way Lab
TCLP	Toxicity Characteristic Leaching Procedure
Terracon	Terracon Consultants, Inc
TOV	total organic vapor
TPH	total petroleum hydrocarbons
TSDF	Treatment, Storage, and Disposal Facility
UST	underground storage tank
VOCs	volatile organic compounds

SOIL MANAGEMENT PLAN REFERENCE GUIDE

Site Description	
Site Name:	Wood Middle School
Site Location:	420 Grand Street, Alameda, Alameda County, California 94501
Site Contacts	
Site Owner:	Alameda Unified School District
Site Contacts:	**Primary** Ruth Boyd Mobile: (510) 827-2287 Email: rboyd@alamedaunified.org **Secondary** Monty Patterson Mobile: (510) 812-9228 Email: mpatterson@alamedaunified.org
Facility Contacts	
Environmental	**Health and Safety Manager – To Be Determined** Name: Title: Company: Mobile: Email: **Waste Management** Professional Asbestos & Lead Services, LLC (PALS) 4020 Newton Road, P.O. Box 31986, Stockton, CA 95213 Phone: 209-244-7106

Contractor Contacts	
Environmental Professional (EP)	**Terracon Consultants, Inc.** 50 Golden Land Court Sacramento, CA 95834 **Project Manager - Primary** Sadie Bodiford Office: (916) 246-5080 Mobile: (831) 332-3736 Email: sadie.bodiford@terracon.com **Department Manager** Joe Rosenbery, P.G. Office: (209) 269-8557 Mobile: (714) 336-4043 Email: joe.rosenbery@terracon.com
State of California Certified Laboratory	**SunStar Laboratories** 25712 Commercenter Drive Lake Forest, California 92630 **Project Manager** Jeff Lee Email: jefflee@sunstarlabs.com Phone: (949) 297-5020
General Contractor	**Lathrop Construction Associates, Inc.** 4001 Park Road Benicia, California 94510 **General Superintendent** Brian Bianchi Mobile: (707) 974-2689 Email: brian.bianchi@lathropconstruction.com

Permits/Agency Notification Requirements	
Confined Space Entry Permit	Required if qualified/trained personnel will be entering an excavation **deeper than four feet** or structure with limited ingress/egress and the potential for hazardous atmosphere may be present. Terracon will not be entering confined spaces.
Bay Area Air District (BAAD)	Contractor to confirm that no permit and no notification is required. Best management practices (BMPs) need to be implemented for effective dust control management (confining generated dust to the boundaries of the Site). Any impacted or potentially impacted soils should be covered and/or containerized and handled as indicated herein.

Permits/Agency Notification Requirements	
Department of Toxic Control (DTSC)	The Site has an open regulatory case, DTSC Case No: 60003799. **Case Manager** Lisa Holcomb P: 916-255-6523 E: lisa.holcomb@dtsc.ca.gov Department of Toxic Substances Control Site Mitigation and Restoration Program 8800 Cal Center Drive Sacramento, California 95826

POTENTIAL DISPOSAL/RECYCLING FACIILITIES	
Non-hazardous Soil and/or Liquids	**Potrero Hills Landfill** (Soil Only) 3675 Potrero Hills Lane Suisun City, California 94585 Phone: (707) 432-4627
Hazardous Soil	**Kettleman Hills Facility** (Solids Disposal, Class I) 35251 Old Skyline Road Kettleman City, CA 93239 Phone: (714) 771-5554
WASTE TRANSPORATION	
California licensed hazardous waste transporters	**Professional Asbestos & Lead Services, LLC (PALS)** 4020 Newton Road, P.O. Box 31986, Stockton, CA 95213 Phone: 209-244-7106
Schedule	
Roadway Construction Beneficial Occupancy	June 9, 2025 to August 8, 2025 April 1, 2026

Soil Management Plan

Wood Middle School
420 Grand Street
Alameda, Alameda County, California 94501

Terracon Project No. NB257123
EnviroStor Case No. 60003799
May 27, 2025

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has prepared this Soil Management Plan (SMP) to provide information concerning environmental Site conditions and best management practices (BMPs) associated with impacted soil that may be encountered during earth working activities planned to be conducted by the GC on behalf of the client during the construction phase of the Wood Middle School redevelopment project. A Topographic Map showing the Site location, and a Site Diagram are included as **Exhibits 1 and 2 of Appendix A**, respectively.

1.1 Site Description

Site Name	Wood Middle School
Site Location/Address	420 Grand Street, Alameda, California 94501, (Assessor Parcel Numbers (APNs) 17-1250-1-5).
General Site Description	The Site consists of an approximately 14.2-acre tract of land. The roadway (OU1) contains two-lane asphalt-paved road with concrete-paved sidewalks, light poles, and the northern half of the road will include parking and landscape features on either side of the roadway. OU2 encompasses the new Wood Middle School campus, including three new school buildings, asphalt-paved playground and parking lot areas, and concrete-paved and landscaped courtyard areas, which are currently under construction. OU3 consists of the temporary school campus and athletic fields. The temporary school campus is proposed for use by another AUSD school once the OU2 construction is completed. It is not known at this time when redevelopment of this OU will occur.

A topographic map and Site diagram are included as **Exhibits 1** and **2** of **Appendix A**, respectively.

1.2 Background Information

The following paragraphs summarize historical concerns associated with the former land use, including the Site.

1.2.1 Site History

Based on the site history provided in ACC Environmental Consultants' (ACC) Phase I Environmental Site Assessment (ACC Project No. 3007-171-00, dated March 5, 2024), the Site and adjoining properties consisted of a portion of the San Francisco Bay from as early as 1895 and were part of the South Shore Reclamation Project in the 1950s, which included the import of fill material for the Site and surrounding areas. The Site and adjoining properties were developed with the existing school property, residential neighborhoods, and open spaces in the 1960s and remained relatively unchanged through the present. As of November 2024, the Site has been undergoing redevelopment with a new middle school campus.

The Site has no history of industrial or commercial land use; however, the fill material used during the South Shore Reclamation Project has been known to contain elevated concentrations of heavy metals and petroleum hydrocarbons.

Based on the historical review of the Site and boring logs prepared by ACC, the fill material present at the Site appears to consist of a homogeneous light-gray to brown poorly-graded sand.

1.2.2 Soil Characterization

From April 2024 through March 2025, ACC Consultants, Inc. conducted several rounds of subsurface soil sampling for soil characterization throughout the site. Soil samples collected from the site have been analyzed for:

- Total Petroleum Hydrocarbons (TPH) as gasoline range organics (TPH-GRO), diesel range organics (TPH-DRO), and motor oil organics (TPH-MORO) by Environmental Protection Agency (EPA) Method 8015;
- Volatile Organic Compounds (VOCs) by EPA Method 8260;
- Semi-volatile Organic Compounds (SVOCs) by EPA Method 8270;
- Organochlorine Pesticides (OCPs) by EPA 8081;
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082;
- California Administrative Manual (CAM) 17 Metals by EPA Methods 6020/7471; and,
- Hexavalent chromium by EPA Method 7199.

Based on the analytical results obtained by ACC, contaminants of concern have been identified to include lead, arsenic, and hexavalent chromium. The area of lead-impacted soil is in process of remediation, set to be completed on May 20, 2025.

Arsenic concentrations have been reported ranging from 1.9 mg/kg to 9.1 mg/kg. These levels are consistent with typical to higher-end background levels found in the bay area. However, the levels of arsenic consistently exceed the current ESL for residential and construction workers. Hexavalent chromium concentration have been reported ranging from below laboratory reporting limits up to 0.9 mg/kg in the soil samples analyzed, exceeding the residential ESL in some locations.

1.3 Purpose

The purpose of the SMP is to provide the client, GC, subcontractor(s) and other vendors working on the project with the expectations and guidance for the following:

- Known or suspected impacts;
- Extent and magnitude of impacts;
- Worker protection;
- Encountered impacted material;
- Encountered subsurface structures;
- Excavating impacted material; and,
- Profiling and waste disposal.

The SMP provides site-specific procedures and protocols to be utilized if impacted soil is encountered during excavations and earth moving activities related to the project. Procedures and protocols are included to assist the proper management of impacted soils and reduce the risk of environmental and human health exposure pathways.

The procedures provided in this SMP for the handling, stockpiling and screening of excavated soils must be followed to properly profile the soil for either on-site reuse or disposal to an approved Treatment, Storage, and Disposal Facility (TSDF) that is licensed to accept and/or recycle the waste generated. Waste handling and disposal must also comply with the client's requirements and applicable state and federal guidelines.

This SMP together with the Site-Specific Environmental Health and Safety Plan (EHASP – Appendix C), the General Contractor's stormwater pollution prevention plan (SWPPP) and best management practices (BMPs) will minimize potential impacts to human health and the environment during proposed project activities.

2.0 EXCAVATED SOIL CHARACTERISTICS

During excavation, there is a potential to encounter soils impacted with **hexavalent chromium,** which if excavated, may result in the generation of waste that requires

management and additional precautions during construction. Based on the maximum depth of the proposed excavation activities (up to **4 feet bgs**), groundwater is not anticipated to be encountered within the planned areas of excavation.

This SMP provides procedures to properly identify, segregate, manage, characterize, and dispose of hazardous and non-hazardous wastes that are incidentally generated during excavation activities. Four categories potentially apply to excavated soils:

1. **Resource Conservation and Recovery Act (RCRA) Hazardous Waste** – excavated soil with representative chemical concentrations exceeding Federal criteria when analyzed by Toxicity Characteristic Leaching Procedure (TCLP).

   Expectation: Not anticipated.

2. **Non-RCRA [California] Hazardous Waste** – excavated soil with representative chemical concentrations exceeding State criteria when analyzed by Soluble Threshold Limit Concentration (STLC) but not exceeding Federal criteria (TCLP thresholds).

   Expectation: Not anticipated.

3. **Non-hazardous Waste** – excavated soil with representative chemical concentrations less than State and Federal criteria.

   Expectation: A portion of the soil will likely meet the criteria for this category.

4. **Non-impacted Soil** – soil does not have chemical impacts that would require special handling or offsite disposal.

   Expectation: It is anticipated that the vast majority of the soil excavated from the Project Site will fall under this category.

3.0 NOTIFICATIONS AND PRE-EXCAVATION ACTIVITIES

3.1 General Notifications

The GC and subcontractor(s) are to develop their own HASP, SWPPP, and other construction documents. In addition, the GC is responsible for all necessary permits and notifications to regulatory and permitting agencies associated with the project work. BMPs should be implemented by the GC to ensure compliance with the approved SWPPP and dust control plan, as required.

3.2 Notifications for Impacted Soil

The client should notify the GC and its subcontractors of the potential for encountering impacted soil and/or underground features during excavation activities; and the client should provide this SMP to the GC and its subcontractors as a general guidance document for managing impacted soils, if encountered.

Underground features or unidentified environmental features are defined herein as regulated features, such as underground storage tanks (USTs), septic pits, hydraulic lift components, clarifiers, and other unknown features which contain or are suspected of having contained hazardous substances. Although not known to be located within the limits of the project Site, there is a potential that these could be encountered during subsurface work.

If the GC or subcontractors identify field observations (i.e. odors, staining) that indicate the possible presence of impacted soils, and/or encounter underground environmental features, the work activities in the area of discovery should be temporarily stopped and the following notifications should be implemented as soon as practical, but within 24 hours of discovery.

The notifications for reporting discovery of impacted soil and/or underground features are as follows.

Primary Contacts:

Client/Owner Program Manager
Ms. Ruth Boyd
Office: (510) 337-7000x77930
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E: rboyd@alamedaunified.org

Terracon Project Manager
Sadie Bodiford
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Email: Sadie.Bodiford@terracon.com

Secondary Contacts:

Terracon Department Manager
Joe Rosenbery, P.G.
Office: (209) 269-8557
Mobile: (714) 336-4043
Email: joe.rosenbery@terracon.com

3.3 Worker Education and Safety

This SMP provides information for use in complying with employer obligations such as employee right-to-know, worker safety, and other regulatory programs while providing general guidelines for reducing potential exposures of workers to environmental media having chemical impact. However, each employer remains responsible for the health and safety of its own workers. This SMP is not intended for direct, unmodified use by employers to protect workers. Rather, it intends to provide general considerations and procedures for modification and incorporation by employers into their existing worker safety programs. The GC and its subcontractors must inform and educate their respective workers to be alert for new or undiscovered conditions that could potentially pose risk.

As indicated above, the GC and their subcontractors should develop and implement independent HASPs during all phases of work. Based on current analytical data, the potential contaminants of concern (COCs) includes hexavalent chromium, which should be considered in the HASPs. Additionally, Terracon recommends that the HASPs be prepared by a qualified person experienced in the health and safety risks associated with the identified COCs in accordance with the Federal Occupational Safety and Health Administration (OSHA) Hazardous Waste Operators and Emergency Response (HAZWOPER) standard (29 CFR 1910.120) and Cal-OSHA standard (8 CCR 5192). The HASPs shall specify administrative and engineering controls and require applicable personal protective equipment (PPE) for worker safety during each stage of the Project. An Environmental Health and Safety Plan (EHASP) was prepared for this Site and provided as an appendix to this SMP.

4.0 POTENTIAL CONTAMINANT SOURCES

Based on the findings from ACC Environmental Consultant's soil sampling efforts, construction workers have the potential to be exposed to soil with concentrations of hexavalent chromium above DTSC-SLs in the vicinity of soil borings B-7, B-25, B-26, B-27, B-28, and B-29 (see **Exhibit 2**).

5.0 POTENTIAL EXPOSURE PATHWAYS AND RECEPTORS

Based on the historical operations and data collected for the Site, the current exposure pathways are the inhalation and ingestion of impacted dust within the breathing space of workers as well as dermal contact with soil during excavation activities.

6.0 SOIL MANAGEMENT

6.1 Waste Minimization

Measures should be taken to limit the volume of excess soils accumulating on the Site to minimize the potential for contact between stormwater and any impacted soils identified during excavation. Excavation in areas where contaminated soils are encountered should be protected from stormwater run-off by constructing soil berms, diversionary structures, or temporary detention areas to direct water away from exposed soils.

6.2 Changed Conditions and Soil Stockpiling

Contractors should be aware of the regulatory implications of improper management or disposal of contaminated soils. If changed conditions are encountered (i.e. petroleum hydrocarbons, USTs, or obviously impacted soils), the excavated impacted soil will be stockpiled separately on plastic sheeting, covered with plastic sheeting, and secured with fiber rolls or equivalent until Terracon can properly evaluate the changed conditions and/or impacted soil. Alternatively, soils may be containerized in Department of Transportation (DOT) drums, or plastic-lined roll-off bins with closable lids.

Additionally, Terracon will assist in directing the segregation of impacted soils, if requested. Impacted environmental media shall be isolated from worker and public exposure, contained using plastic sheeting above and below, within berms to prevent migration from the pile, and secured with additional fencing, if necessary, until ready for transport. Workers in physical contact (including equipment operators) with known contaminated soils or obviously (visually, or by smell) impacted environmental media (i.e. soil, water, or air) should have OSHA HAZWOPER training consistent with 29 CFR 1910.120.

If chemical odors, stained or saturated soils, a sheen on water in excavations, or other evidence of potential chemical contamination is encountered during excavation activities, contractors should stop work in the area of the discovery and conduct notifications in accordance with **Section 3.2** of this SMP.

6.3 Waste Characterization and Disposal or Reuse

Terracon understands that onsite excavation may result in excess soil being generated. If impacts are identified, the impacted excavated soil may require characterization, and/or offsite disposal at an approved and licensed facility. Based on the historical knowledge of the Site, the identified COCs onsite and typical waste profiling parameters, the analysis (if warranted) would likely include TPH by EPA method 8015M, VOCs by EPA method 8260B, California Administrative Manual metals (CAM-17 Metals) by EPA method 6010B/7471, and

CrVI by EPA Method 7199. Procedures in the Environmental Protection Agency (EPA) Publication SW-846 provide a method for determining the mean concentration of a given contaminant within a soil mass and the appropriate number of samples necessary to calculate this mean to within a specified confidence level.

The following presents an overview and guideline of the minimum number of discrete samples required for stockpile sampling:

Stockpiles <10 Cubic Yards – A minimum of two soil samples will be collected, one from each half of the stockpile. Select sample points randomly within each half;

Stockpiles from 10 to 20 Cubic Yards – A minimum of three soil samples will be collected, one from each third of the stockpile. Select sample points randomly within each third;

Stockpiles 20 to 100 Cubic Yards – A minimum of four soil samples will be collected, one from each quarter of the stockpile. Select sample points randomly within each quarter; and

Stockpiles 100 to 500 Cubic Yards – A minimum of one soil sample for each 25 cubic yards or portion thereof will be collected (e.g., a 100 cubic yard stockpile would require 5 soil samples). Section the stockpile into approximately 25 cubic yard portions and obtain a minimum of one soil sample from each 25 cubic yard portion. Select sample points randomly within each 25 cubic yard portion of the stockpile.

If any additional excavated soil is determined to be impacted during excavation, classification as non-hazardous or hazardous waste shall be made by the client/Terracon or the GC, and an authorized transporter will be selected for disposal at a licensed offsite facility, as approved by the client/Terracon.

7.0 WATER MANAGEMENT

Based on the recent site analytical data, groundwater was not encountered beneath the Site to 4 feet bgs, the maximum depth explored, along the Path of Construction. The maximum expected depth of excavation, foundation and earthwork is **4 feet bgs**; therefore, groundwater is not anticipated to be encountered during earth work activities; however, depending on the topography of the Site and time of the year, there is a potential to encounter groundwater.

In the case that water is encountered in onsite excavations and/or stormwater comes in contact with potentially impacted soils, the water shall be managed as potentially contaminated and evaluated through chemical analysis prior to discharge and/or offsite

disposal. Potentially impacted water should be containerized in DOT approved containers or suitable aboveground storage tank (AST) with the capacity to contain the volume of water. The contractors should conduct notifications in accordance with **Section 3.2** of this SMP. Discharge of untested or untreated groundwater to the ground surface, storm sewer, or sanitary system is prohibited without analytical testing and an approved discharge permit issued by City of Alameda.

8.0 PROJECT CONTROLS

The following control measures, or equivalent, should be implemented during excavation.

8.1 Dust Control Measures

If required by the Bay Area Air District (BAAD), the general contractor will be responsible for taking actions to prevent, reduce, or mitigate visible dust emissions from the site. A Dust Control Permit and a Dust Mitigation Plan may be required and shall consider the chemicals of concern identified in the plan. Supplemental permits may also be needed for activities such as (but not limited to) stockpiling, backfilling or crushing, etc.

A Community Air Monitoring Plan is included as Appendix B to this SMP.

8.2 Fugitive Vapors

Fugitive vapors are not anticipated to be encountered based on the soil analytical data obtained for the Site; however, during excavation, stockpiling, and loading/transportation of export material potentially impacted by VOCs and/or TPH, fugitive vapors can create a nuisance and a human health hazard for the workers and the surrounding community. If these conditions are encountered and an organic vapor analyzer (OVA) indicates a total organic vapor (TOV) concentration of 50 parts per million by volume (ppmv). If conditions warrant, the GC shall provide notification to the BAAQMD and provide fugitive vapor monitoring of the excavated soils and excavation cavity per BAAQMD Rule 1166. Terracon should be notified to conduct field screening using sensory methods and a handheld direct-reading Photo Ionization Detector (PID) to detect the presence of VOCs, and sampling of the impacted materials, if warranted.

8.3 Tracking Sediment Offsite

Construction stabilized exits consisting of trackout control systems, such as rattle grates, pipe-grid trackout-control, and/or gravel bed trackout aprons with 3-inch diameter rock, shall be used to knock loose dirt/mud from the wheels of vehicles exiting the Site. All trucks exiting the Project Site shall ensure that no spillage of soil occurs offsite and minimize

tracking of soil from the Site. Truck drivers transporting waste shall be required to inspect the exterior of their trucks and brush off all loose soil prior to departing the Site. Trucks transporting waste shall limit the load of soil to allow sufficient freeboard (e.g., 6 inches) and shall cover each load prior to leaving the Project Site.

9.0 DOCUMENTATION

Upon completion of Site excavation activities and receipt of any necessary laboratory analytical results and waste manifest documentation, the GC or Terracon will prepare a report, at the client's request, that will generally include the following:

- Field Logs and Activities Summaries;
- Photo-documentation of Site activities by Terracon, if called out to the Site;
- Laboratory results for characterization of wastes, if any;
- Site map indicating sample locations and limits of contamination encountered, if any;
- Waste profile forms, if any; and
- Waste manifests for soil transported offsite for disposal and/or recycling, if any.

10.0 LIMITATIONS

This SMP has been developed to inform the client, subcontractors, and Site workers of the potential for encountering contaminated soil during earthworking activities at the Site. If encountered, the concentrations of contaminants in environmental media could pose a limited health hazard to construction personnel via inhalation of contaminated dust or vapors and the accidental ingestion of soil and/or groundwater. The precautions are intended to reduce the potential for adverse health effects to personnel excavating and managing environmental media at the Site. This SMP is for the limited purpose of addressing the potential for health hazards due to exposure to contaminants, if identified in environmental media. It is not intended as a comprehensive construction safety program. The GC and its subcontractors engaged in activities at the project are responsible for conducting Site activities in accordance with federal, state, and local environmental and safety regulations.

APPENDIX A

Exhibit 1: Topographic Map
Exhibit 2: Site Diagram



Approximate Site Boundary

0 1,000 2,000 4,000 Feet

Project No.:	NB257123
Date:	05/22/2025
Drawn By:	SMB
Reviewed By:	JR

terracon

50 Goldenland Ct., Ste. 100 Sacramento, CA 95834

PH. (916) 928-4690 terracon.com

Topographic Map

Wood Middle School
420 Grand Street
Alameda, Alameda County, California

Exhibit

1



Area Under Construction (Nov 2024 - Present)

Feet
0 110 220 440

Operable Unit (OU)

- OU1 - Roadway
- OU2 - School Campus Phase I
- OU3 - School Campus Phase II

Project No.: NB257123 Date: 05/22/2025 Drawn By: SMB Reviewed By: JR	terracon 50 Goldenland Ct., Ste. 100 Sacramento, CA 95834 PH. (916) 928-4690 terracon.com	**Site Diagram** Wood Middle School 420 Grand Street Alameda, Alameda County, California	**Exhibit** **2**

APPENDIX B

Community Air Monitoring Program

Community Air Monitoring Plan

Wood Middle School

420 Grand Street

Alameda, Alameda County, California 94501

Terracon Project Number: NB257123

EnviroStor Case No. 60003799

May 27, 2025; Revised August 14, 2025

Prepared for:
Alameda Unified School District
Alameda, California



Prepared by:
Terracon Consultants, Inc.
Sacramento, California

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Table of Contents

1.0 INTRODUCTION 3
1.1 Site Description 3
1.2 Project Scope 3
1.3 Contaminants of Concern (COC) 4
1.4 CAMP Objectives 7
2.0 Key Contact Information 8
3.0 Dust and Emissions Control 9
4.0 Perimeter Air Monitoring 10
4.1 Baseline Ambient Air Monitoring 10
4.2 Air Monitoring During Earthworking Activity 10
4.2.1 Monitoring Locations 11
4.2.2 Dust Monitoring Protocols 11
4.3 Site-Specific Action Levels ..... 13~~12~~
4.4 PM10 Dust Monitoring Action Levels 16
5.0 Quality Assurance and Control 17
5.1 Field Equipment Calibration 17
5.2 Recordkeeping 17
6.0 Reporting ..... 18~~17~~
6.1 Action Limit Exceedances – Immediate Reporting ..... 18~~17~~
6.2 Baseline Report 18
6.3 Progress Reporting 18
6.4 CAMP Project Summary Report 18
7.0 References 19

APPENDICES

APPENDIX A Exhibit 1: Proposed Air Monitoring Locations by Phase

Community Air Monitoring Plan

Wood Middle School
420 Grand Street
Alameda, Alameda County, California 94501

Terracon Project No. NB257123
EnviroStor Case No. 60003799
May 27, 2025
Revised August 14, 2025

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has prepared this Community Air Monitoring Plan (CAMP) for the Wood Middle School redevelopment project located at 420 Grand Street in Alameda, Alameda County, California, the Site. The redevelopment project includes the demolition of existing school structures, sitewide grading, and development of three new school buildings. This CAMP provides guidance for addressing potential health and safety hazards and mitigating dust exposure during Site redevelopment.

This CAMP has been prepared by Terracon in general accordance with the CAMP Guidance, prepared by the California Department of Toxic Substances Control (DTSC), dated January 2020 (Cal/EPA/DTSC, 2020). This CAMP describes the contaminants of concern (COCs), monitoring activities, and necessary dust control measures to be implemented during site redevelopment activities.

1.1 Site Description

The site is located at 420 Grand Street, Alameda, California 94501, (Assessor Parcel Numbers (APNs) 17-1250-1-5), and consists of an approximately 14.2-acre tract of land. The site is undergoing a phased redevelopment with the western portion of the Site currently undergoing redevelopment with the Wood Middle School and associated roadway. The eastern portion of the site currently used as a temporary campus.

The Site is surrounded by single- and multi-family residential neighborhoods and Rittler Park to the adjoining northwest.

1.2 Project Scope

The western half of the Site began redevelopment activities in November 2024 and included the demolition of the existing Wood Middle School campus, site grading, and at the issuance

of this CAMP, is undergoing development with three new school buildings, playground areas, and landscaping. A roadway is proposed for development starting on June 9, 2025 that will include entrances from Otis Drive to the north and Grand Street to the east. The roadway will provide drop off and fire safety access to the new campus.

Based on the proposed development schedule and proposed future uses, the following Operable Units are assigned to the Site:

Operable Unit No.	OU Name	Description	Screening Level Designation	Construction Schedule
OU1	Roadway	An approximate 1.2-acre portion of APNs 17-1250-1-5. An easement agreement has been obtained between the City of Alameda and AUSD for the development of the roadway. The roadway will consist of a two-lane asphalt-paved road with concrete-paved sidewalks, light poles, and the northern half of the road will include parking and landscape features on either side of the roadway.	Commercial / Industrial	June 9, 2025 to August 8, 2025
OU2	School Campus – Phase I	An approximate 4.2-acre portion of APNs 17-1250-1-5. OU2 encompasses the new Wood Middle School campus, including three new school buildings, asphalt-paved playground and parking lot areas, and concrete-paved and landscaped courtyard areas, which are currently under construction.	Residential	November 2024 to April 2026
OU3	School Campus – Phase II	An approximate 8.8-acre portion of APN 74-1250-1-5. OU3 consists of the temporary school campus and athletic fields. The temporary school campus is proposed for use by another AUSD school once the OU2 construction is completed. It is not known at this time when redevelopment of this OU will occur.	Residential	To be determined

1.3 Contaminants of Concern (COC)

The portion of Alameda occupied by Wood Middle School and the surrounding residential properties is comprised of engineered fill used to expand the land usable for urban development, referred to as the South Shore Reclamation Project. These land reclamation activities were conducted in the 1950s, with the fill material being comprised of dredge spoils from the San Francisco Bay and excavated material from nearby projects. Reclamation activities were closely followed by the development of the Site as a school, with the areas surrounding the Site being developed as single and multi-family residential properties. The Site has no history of industrial or commercial land use; however, the fill material has been known to contain elevated concentrations of heavy metals and petroleum hydrocarbons.

Based on the historical review of the Site and boring logs prepared by ACC, the fill material present at the Site appears to consist of a homogeneous light-gray to brown poorly-graded sand.

Soil samples collected throughout the Site were reported with concentrations of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), California Administrative Manual (CAM) 17 metals, organochlorine pesticides (OCPs), PCBs, and asbestos at concentrations below respective DTSC-SLs for residential land use and/or below laboratory reporting limits, or in the case for arsenic, within established background concentrations. Concentrations of arsenic have been reported in on-site soil ranging from 1.8 milligrams per kilogram (mg/kg) to 9.1 mg/kg. The reported concentrations of arsenic are above the residential DTSC-SL of 0.11 mg/kg; however, background concentrations for arsenic have been reported ranging up to 11 mg/kg in soil samples collected throughout the Bay Area (Duvergé 2011).

At the direction of the DTSC, soil samples were additionally analyzed for hexavalent chromium. The following provides a summary of hexavalent chromium concentrations reported for soil samples collected by ACC and analyzed by McCampbell Laboratories of Pittsburg, California:

Summary of Hexavalent Chromium Analytical Results

Boring ID	Location	Sample ID	Chromium VI (mg/kg)
ACCB25	OU1 - Roadway	ACCB25-0.5	0.62
		ACCB25-4.0	<0.24
ACCB26		ACCB26-0.5	0.23
		ACCB26-4.0	0.34
ACCB10	OU2 - School Campus Phase I	ACCB10-0.5	0.23
		ACCB10-4.0	<0.24
ACCB11		ACCB11-0.5	<0.24
		ACCB11-4.0	<0.22
ACCB12		ACCB12-0.5	<0.22
		ACCB12-4.0	<0.21
ACCB13		ACCB13-0.5	0.15 J
		ACCB13-4.0	<0.21
ACCB27		ACCB27-0.5	0.46
		ACCB27-4.0	<0.22
ACCB30		ACCB30-0.5	<0.22
		ACCB30-4.0	<0.22
ACCB28	OU3 – School Campus Phase II	ACCB28-0.5	0.34
		ACCB28-4.0	<0.23
ACCB29		ACCB29-0.5	0.90
		ACCB29-4.0	<0.22
DTSC-SL		Residential	0.3
		Commercial/Industrial	6.2
SFBRWQCB ESL[2]		Construction Worker	2.8

Notes:

1. J-Flag: the reported concentration is flagged by the laboratory as an estimated value.
2. San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (SFBRWQCB ESL) for direct exposure human health risk level for construction worker exposure, published January 2019, rev 2.

1.4 CAMP Objectives

This CAMP has been prepared to ensure that safe working conditions are maintained for the surrounding community and Site workers during construction. The following will be implemented during construction activities to ensure safe working conditions:

- Conduct a baseline air assessment for particulate matter at the Site;
- Comply with environmental regulations during earthworking activities;
- Define action levels for particulate air emissions;
- Define procedures for action level exceedances;
- Monitoring of particulate emissions during earthworking activities; and,
- Maintaining air monitoring records in accordance with applicable regulations.

The following California and Bay Area Air District (BAAD), formerly the Bay Area Air Quality management District (BAAQMD), regulations are applicable to the Site during development activities:

- BAAQMD California Environmental Quality Act (CEQA; BAAQMD, 2022) Guidelines: The BAAQMD prepared CEQA Guidelines to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. The Guidelines provides BAAD-recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements.
- California Ambient Air Quality Standards (CAAQS: California Air Resources Board [CARB], 2002): CAAQS action levels for 10-micron diameter particulate matter (PM10) adopted by BAAD, which specifies a time-weighted average (TWA) ceiling level of no more than 50 micrograms per cubic meter ($\mu g/m^3$) difference between up-wind and down-wind sampling locations over the course of a 24-hour day. The ceiling level of 50 $\mu g/m^3$ represents the Bay Area 24-hour time-weighted average standard for 10-micron diameter particulate matter (the PM10 24-hour standard).
- Health-based screening levels, including Human and Ecological Risk Office (HERO) Note 3 Screening Levels (DTSC-SLs), the USEPA Regional Screening Levels (RSLs), and the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (ESLs).

2.0 Key Contact Information

Site Contacts	
Site Owner:	Alameda Unified School District
Site Contacts:	Primary Ruth Boyd Mobile: (510) 827-2287 Email: rboyd@alamedaunified.org Secondary Monty Patterson Mobile: (510) 812-9228 Email: mpatterson@alamedaunified.org
Facility Contacts	
Environmental	Health and Safety Manager – To Be Determined Name: Title: Company: Mobile: Email: Waste Management Professional Asbestos & Lead Services, LLC (PALS) 4020 Newton Road, P.O. Box 31986, Stockton, CA 95213 Phone: 209-244-7106
Contractor Contacts	
Environmental Professional (EP)	Terracon Consultants, Inc. 50 Golden Land Court Sacramento, CA 95834 Project Manager - Primary Sadie Bodiford Office: (916) 246-5080 Mobile: (831) 332-3736 Email: sadie.bodiford@terracon.com Department Manager Joe Rosenbery, P.G. Office: (209) 269-8557 Mobile: (714) 336-4043 Email: joe.rosenbery@terracon.com

Contractor Contacts	
State of California Certified Laboratory	SunStar Laboratories 25712 Commercenter Drive Lake Forest, California 92630 Project Manager Jeff Lee Email: jefflee@sunstarlabs.com Phone: (949) 297-5020
General Contractor	Lathrop Construction Associates, Inc. 4001 Park Road Benicia, California 94510 General Superintendent Brian Bianchi Mobile: (707) 974-2689 Email: brian.bianchi@lathropconstruction.com

Permits/Agency Notification Requirements	
Bay Area Air District (BAAD)	P: 145-749-4900 375 Beale Street, Suite 600, San Francisco, California
Department of Toxic Control (DTSC)	The Site has an open regulatory case, DTSC Case No: 60003799. Case Manager Lisa Holcomb P: 916-255-6523 E: lisa.holcomb@dtsc.ca.gov Department of Toxic Substances Control Site Mitigation and Restoration Program 8800 Cal Center Drive Sacramento, California 95826

3.0 Dust and Emissions Control

The dust control measures planned to be implemented during the Site project are described in Section 8.0 of the SMP. As outlined in the SMP, basic construction dust mitigation measures will be implemented in general accordance with recommendations in the BAAQDM CEQA Guidelines (BAAQMD 2022).

4.0 Perimeter Air Monitoring

The following sections provide provisions for the Site boundary air monitoring program that will be implemented at the Site during construction activities involving earthwork to protect off-Site receptors. In general accordance with BAAQMD Ambient Air Quality Standards and the DTSC CAMP Guidance, Site boundary monitoring will consist of dust monitoring for PM_{10}.

Dust monitoring will be conducted to characterize the potential for exposure to Site personnel during excavation of contaminated soil using a direct-reading light scattering nepholometers configured with PM_{10} cutoff cyclones (dust monitors). Continuous monitoring will also be performed during operations that have not previously been characterized. Monitoring will be conducted continuously for the following conditions:

- ~~One~~ Two (2~~1~~) days of monitoring at least two (2) days prior to soil excavation to establish baseline conditions.
- During the entirety of earthmoving activities for each OU work phase.~~For the first week of earthmoving activities for each OU work phase.~~
- On additional days, if initial monitoring results indicate that dust control methods were not adequate.
- When unknown conditions of contamination are encountered.

4.1 Baseline Ambient Air Monitoring

Two (2) days of air monitoring will be conducted at least two (2) days prior to soil-disturbing activities at the site, in accordance with the protocols outlined here to establish baseline concentrations of PM10 in the Site vicinity.~~One (1) day of baseline air monitoring will be conducted in accordance with the protocols outlined here to establish baseline concentrations of PM10 in the Site vicinity.~~ Baseline air monitoring will be implemented for eight to ten hours during the baseline monitoring period, to evaluate potential dust concentrations representative of a typical construction work shift. The baseline monitoring locations will be determined based on observed wind direction and access constraints at the planned time of monitoring. Following the completion of baseline ambient air monitoring, a Baseline Ambient Air Monitoring Report will be provided to document the monitoring results. That report is described in Section 6.2.

4.2 Air Monitoring During Earthworking Activity

Continuous monitoring of respirable dust is required for all earthmoving activities for each OU phase. A request for reduction in the frequency of air monitoring will be submitted to DTSC if initial weekly monitoring results indicate that dust control methods adequately maintained perimeter dust concentrations less than the PM10 Dust Action Levels described in Section 4.4.

~~Real-time air monitoring for respirable dust will be performed during the first week of earthmoving activities for each OU phase. Monitoring may be discontinued, if initial weekly monitoring results indicate that dust control methods adequately maintain perimeter dust concentrations less than the PM10 Dust Action Levels described in Section 4.4.~~ The objective of the perimeter air-monitoring program is to protect the health and safety of the nearby community and to document the effectiveness of the dust control measures.

4.2.1 Monitoring Locations

Perimeter and sensitive receptor monitoring will be completed using four stationary light scattering nepholometers configured with PM_{10} cutoff cyclones (dust monitors). One device will be placed at the property boundary upwind of earthmoving activities and the other three devices placed at property boundaries downwind of work activities. Locations of dust monitors may require modification based on changes in wind conditions or work activities.

The Site contribution is calculated as the difference in PM_{10} between upwind and downwind sampling locations. Dust monitoring locations will be determined in the field based on site conditions at the time of sampling.

4.2.2 Dust Monitoring Protocols

Real-time dust monitors will be used to measure mass concentrations of airborne dust and provide measurement of respirable dust, expressed as measurement of concentration of PM_{10}. The dust monitors will be placed at the approximate personal breathing zone (PBZ) height of approximately 5 to 6 feet and will monitor the emissions entering and leaving the Site. The dust monitors will record measurements of PM_{10} at 1-minute intervals and report data as a 5-minute rolling average.

Dust concentrations at the perimeter of each work area will be monitored during intervals of active earthwork. If any measurements of dust concentrations exceed the stipulated action levels, discussed in Section 4.3, work will be halted, engineering controls and other appropriate dust mitigation measures will be implemented, and the work and monitoring schedule will be adjusted until background levels are attained. Dust control measures are summarized in Section 8.1 of the SMP to which this CAMP is appended.

Real-time monitoring will consist of the following activities:

- Determination of the predominant wind direction
- Place one instrument upwind of Site operation for ambient sampling
- Place one or more instrument(s) downwind of Site operations at the Site perimeter
- Position the instrument inlet orifice near the normal breathing zone and monitor for approximately five-minutes after instrument reading have stabilized

  Record the following observations in real-time:
  - Location

- Time
- Site activity
- Readings
- Visual observations of dust
- Site conditions, including current weather conditions
- Odors and/or other miscellaneous observations

4.2.2.1 Equipment

Measurements of real-time airborne particulate concentrations will be recorded using a TSI Model 8520 DustTrak™ Aerosol Monitor, or equivalent in accordance with the DTSC CAMP Guidance Appendix D, "Air Monitoring and Sampling Equipment" (CalEPA/DTSC, 2020). The DustTrak™ provides a direct reading of airborne dust concentrations in a wide variety of environments, from offices and industrial workplaces to outdoor environmental and construction sites. TSI's DustTrak provides reliable exposure assessment by measuring particle concentrations corresponding to PM_{10}, $PM_{2.5}$, $PM_{1.0}$ or respirable size fractions. The dust monitors will be calibrated in accordance with manufacturer specifications prior to use on the project site. Each dust monitor will be zeroed at the beginning of each air monitoring interval. A LUFFT WS-500 weather station, or equivalent, will be used to record wind speed and direction throughout each monitoring interval.

4.2.2.2 Monitoring Record – Keeping

The air monitors and weather station will utilize telemetry to upload logged PM_{10} and weather data to a cloud-based platform for data evaluation. Uploaded data will be closely monitored by Terracon's Ambient Air Monitoring Team and on-site QEP. Additionally, automatic notifications of potential AL exceedances are sent to the air monitoring team, so the team can notify on-site personnel immediately and remedial actions can be taken promptly.

Daily field logs during air monitoring will be utilized to record the following information:

- Dust monitor locations
- Meteorological conditions
- Prevailing wind direction
- Description of earthmoving or potential dust-generating activities
- Presence of visible dust
- Use of dust mitigation controls or other corrective actions
- Any conditions that may contribute potential exposures

Equipment maintenance and calibration certificates will be remain with the equipment and made available upon request.

4.3 Site-Specific Action Levels

Site-Specific Action Levels (SSALs) are a conservative estimate of the COC concentrations in air that on or off-site populations may be exposed to over the duration of demolition and redevelopment activities at a Site without posing unacceptable risks to human health and the environment. The SSALs for arsenic and hexavalent chromium at the site was calculated for cancer and non-cancer health effects in accordance with Appendix E of the DTSC CAMP Guidance.

The DTSC Human Health Risk Assessment (HHRA) Note 10 values for inhalation unit risk (IUR) are used for calculating the cancer-based SSAL and inhalation reference exposure levels (RELs) provided by the Office of Environmental Health Hazard Assessment (OEHHA) are used for calculating the non-cancer based SSAL. Cancer-based SSALs and non-cancer based SSALs were calculated using toxicology information (specifically, IUR and inhalation REL, respectively), target risk thresholds, and exposure assumptions specific to planned activities at the Site. Excavation of metal-impacted soils at the Site is anticipated to last for approximately 12 months, and therefore, a conservative exposure duration of 250 working days was used when calculating the SSALs. In accordance with DTSC CAMP Guidance, the more stringent of the calculated SSALs will be used in calculating the real-time dust action limit for arsenic and hexavalent chromium. The cancer and non-cancer SSAL equations, data inputs, and calculated SSALS are detailed in Tables 1 and 2, below.

Table 1: Cancer-Based SSAL

$$SSAL_C = TR \times \frac{1}{IUR} \times \frac{AT_C}{ET \times EF \times ED}$$

Where:

Cancer Variables		Units	Value	~~Source~~References
TR	Target Inhalation Cancer Risk	Unitless	1.00E-6	2
AT_c	Averaging Time for Carcinogenic Effects	Hours	613200	4
ET	Exposure Time	Hours/Day	8	4
EF	Exposure Frequency	Days/Year	250	Site Specific
ED	Exposure Duration	Year	1	4
Arsenic				
IUR	Inhalation Unit Risk for Arsenic	$\mu g/m^3$	4.3E-3	6
$SSAL_c$	Cancer-Based Action Limit in Air	$\mu g/m^3$	7.13E-2	

Hexavalent Chromium				
IUR	Inhalation Unit Risk for Hexavalent Chromium	µg/m^3	1.5E-~~1~~3	6
$SSAL_c$	Cancer-Based Action Limit in Air	µg/m^3	2.04E-3	

Table 2: Non-Cancer-Based SSAL

$$SSAL_{NC} = THQ \times REL \times \frac{AT_{NC}}{ET \times EF \times ED}$$

Where:

Non-Cancer Variables		Units	Value	References~~Source~~
THQ	Target Inhalation Non-Cancer Hazard Quotient	Unitless	1.0	2
AT_{nc}	Averaging Time for Non-Carcinogenic Effects	Hours	8760	4
ET	Exposure Time	Hours/Day	8	4
EF	Exposure Frequency	Days/Year	250	Site Specific
ED	Exposure Duration	Year	1	4
Arsenic				
REL	Inhalation Reference Exposure Level for Arsenic	µg/m^3	1.51E-2	8
$SSAL_{nc}$	Non-Cancer-based Action Limit in Air	µg/m^3	6.57E-2	
Hexavalent Chromium				
REL_{co}	Inhalation Reference Exposure Level for Hexavalent Chromium	µg/m^3	2.01E-1	8
$SSAL_{nc}$	Non-Cancer-based Action Limit in Air	µg/m^3	8.76E-1	

Based on the calculations above, the SSALfor arsenic at the project site is 6.57E-2 based on non-cancer health risk. The SSAL for hexavalent chromium at the project site is 2.04 E-3 µg/m^3 based on cancer health risk. All reference documents are listed in Section 7.0: References.

Determination of Real-Time Dust Action Level

Real-Time dust action levels are used as a surrogate for the SSALs to screen real-time dust monitoring results and determine whether COCs are potentially present at levels above the SSALs.

In accordance with the DTSC CAMP Guidance a real-time site-specific dust action level is based on the lowest (most protective) PM_{10} concentration between:

- The California Ambient Air Quality Standard (CAAQS) for PM10 adopted by the Bay Area Air District (BAAD), which specifies a TWA ceiling level of no more than 50 $\mu g/m^3$ difference between upwind and downwind sampling locations over the course of the day; or
- The health-based DCL calculated based on the maximum concentration of the contaminant detected in soil/dust, toxicology information, and exposure assumptions specific to planned activities at the Site.

The health-based DCL represents the allowable maximum concentration of dust in air during on-site activities and assumes the concentration of COCs in dust (PM_{10}) is proportional to the maximum COC concentration detected in the soil. The equation, data inputs, and calculated health-based DCL for hexavalent chromium at the site is detailed in Table 3 below:

Table 3: Health-Based Dust Control Limits

$$DCL = \frac{SSAL_{COC}}{(C_{COC} \times CF)}$$

Where:

Variables		Units	Value
CF	Unit Conversion Factor	kg soil/mg soil	1.0E-6
Arsenic			
$SSAL_{coc}$	Calculated Site-Specific Action Limit	$\mu g/m^3$	6.57E-2
C_{coc}	Maximum Concentration of in Soil	mg/kg	9.1
DCL	Health-Based Dust Concentration Limit as PM_{10}	$\mu g/m^3$	7,220
Hexavalent Chromium			
$SSAL_{coc}$	Calculated Site-Specific Action Limit	$\mu g/m^3$	2.04E-3
C_{coc}	Maximum Concentration in Soil	mg/kg	0.62

DCL	Health-Based Dust Concentration Limit as PM_{10}	µg/m^3	3,297

The calculated health-based DCLs for arsenic and hexavalent chromium at the site are 7,220 µg/m^3 and 3,297 µg/m^3, respectively, which are less protective than the CAAQS of 50 µg/m^3. Therefore, the CAAQS PM_{10} standard of 50 µg/m^3 is recommended as the site-specific dust action level at the site. Additionally, perimeter dust concentrations less than the DCLs for arsenic and hexavalent chromium indicate that exposure of off-site receptors is unlikely to result in adverse health effects.

4.4 PM_{10} Dust Monitoring Action Levels

If the difference between the upwind (ambient) and downwind dust action levels exceed the action levels discussed below, it is assumed that dust is being generated by the project at concentrations exceeding the action levels, and project personnel will be notified so that additional dust control measures can be implemented.

Based on the Site-specific health risk-based calculations, the following Site-specific Dust Action Levels, presented in the table below, are proposed for this Site:

Time Period	Value	Notes
15 minutes	~~2~~50 µg/m^3	~~Short-term action level applied to meet 8-hour action level of 50 µg/m3.(1)~~ Monitoring equipment shall be set with automated alerts or audible alarms to assist with notification of exceedances of this ~~short-term~~ action level~~,~~ Upon any exceedance of a net dust concentration of ~~2~~50 µg/m3 over a 15-minute averaging interval, the designated dust monitoring representative will immediately notify the General Contractor so that corrective actions may be taken to reduce dust emissions to acceptable levels. Justification for an action level exceedance (e.g., vehicular traffic, excavation, stockpiling, etc.) will be documented in daily field logs.
At any time	Visible Dust or short-term net dust concentrations exceeding 3,297 µg/m^3 during a monitoring period.	An actionable event is visible dust crossing the project fence line, or short-term net dust concentrations greater than 3,296 ug/m^3 during a measuring interval. A temporary stop-work will be implemented, and dust control measures will be increased until sustained net dust concentrations are reduced below this action level.

Notes:
PM10 = 10-micron diameter particulate matter
[1] BAAQMD, 2022. CEQA, Air Quality Guidelines. Adopted from CalEPA/CARB, 2002. California Ambient Air Quality Standards.
[2] CalEPA/CARB, 2002. California Ambient Air Quality Standards.

Should an exceedance of the PM_{10} Action Level (AL) be recorded, Terracon will notify the Construction Superintendent immediately, in person, by phone, or digital methods. The Construction Superintendent will notify the appropriate field staff of the exceedance and the corrective actions via phone call or digitally necessary to mitigate the exceedance. After notification, implementation of additional dust control methods such as best management practices (BMPs) or engineering controls will be initiated. Once housekeeping action items, such as watering have been implemented, Terracon will notify the Construction

Superintendent as to the effects of the corrective action. Air monitoring locations may be adjusted as needed throughout the project for seasonal adjustment, or as directed by the health and safety professional with concurrence from Terracon and the Construction Superintendent. A PM_{10} AL exceedance will only stop work if the dust control measures implemented do not remediate the exceeded AL. If work stoppage is deemed necessary, Terracon will immediately contact the Construction Superintendent to discuss the exceedance, corrective actions, and next steps. Terracon will remain in contact with the Construction Superintendent until remedial actions are complete and there is no longer an AL exceedance or visual emissions.

4.5 Dust Control Measures

Dust control measures must be implemented immediately upon an exceedance of the action level and may include but are not limited to soil wetting, covering soil stockpiles with tarps, and/or employing wind breaks at upwind areas during periods of elevated wind velocity. Refer to Section 8.1 in the project Soil Management Plan for further details.

5.0 Quality Assurance and Control

5.1 Field Equipment Calibration

The portable instrumentation used for monitoring at the Site boundary will be calibrated and/or zeroed every 24 hours, as applicable, before measurements are made. All equipment will be calibrated or bump tested according to manufacturer specifications. Readings should be within 10 percent of the calibration standard.

Over the course of each monitoring day, Terracon will check the sampling instruments regularly to ensure their proper operation with no abnormalities, such as pump failure.

5.2 Recordkeeping

As noted in Section 4.2.2.2, information from the monitoring activities will be recorded in a daily field log including monitoring locations, Site activities, meteorological conditions, visible dust determinations, corrective actions employed, or any condition that may contribute to potential exposures. Specific reporting requirements are outlined in the next section.

6.0 Reporting

This section summarizes the reporting efforts planned to be implemented for this CAMP.

6.1 Action Limit Exceedances – Immediate Reporting

Immediate reporting (i.e. same day) of monitoring thresholds that exceed applicable action levels will be prepared and sent by email to the DTSC project manager as needed. Reports will include the following:

- List of monitoring threshold(s) exceeded;
- All data collected during the period of exceedance;
- Description of routine and unusual on-Site activities that occurred during the exceedance;
- Corrective actions taken; and
- Future actions planned.

6.2 Baseline Report

A Baseline Air Monitoring Report will be prepared and submitted before the first Air Monitoring Progress Report. The Baseline Air Monitoring Report will include the same information provided in the ongoing monitoring Progress Reports as outlined below.

6.3 Progress Reporting

An Air Monitoring Progress Report will be prepared at the conclusion of each weekly monitoring interval for each OU project phase. Air Monitoring Progress Reports will include the following from the reporting period:

- Tables showing results of direct-reading instruments;
- Summary of meteorological conditions, including wind-roses for each daily monitoring interval;
- Description of excavation and other earthwork activities;
- Location and duration of any Action Level exceedances
- Any corrective actions taken to mitigate dust levels; and
- Future Site activities planned.

Air Monitoring Progress Reports will be submitted to the DTSC within 2 business days following the reporting period.

6.4 CAMP Project Summary Report

A CAMP Project Summary Report will be prepared following completion of all excavation and grading activities conducted at the Site and will include the following:

- Summary of monitoring and sampling activities;
- Tables summarizing all air monitoring data for the full project;
- Summary of exceedances over the action level and of the maximum and average daily PM_{10} values at each air monitoring location; and
- A wind rose chart of wind speed and direction for the entire project.

The Project Summary Report will be submitted to the DTSC following project completion.

7.0 References

1. Bay Area Air Quality Management District (BAAQMD). 2022. California Environmental Quality Act, Air Quality Guidelines. April.

2. California Environmental Protection Agency, Department of Toxic Substances Control (CalEPA/DTSC). 2020. Community Air Monitoring Plan Guidance. January.

3. California Environmental Protection Agency, California Air Resources Board (CalEPA/CARB), 2002. California Ambient Air Quality Standards (CAAQS). June.

4. DTSC, Human and Ecological Risk Office (HERO). 2019. Human Health Risk Assessment Note Number 1: Recommended DTSC Default Exposure Factors for Use in Risk Assessments at California Hazardous Waste Sites and Permitted Facilities. April 2019. Accessed at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2022/02/HHRA-Note-1-April-2019-21A.pdf

5. DTSC, HERO. 2020. Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs). June.

6. DTSC, HERO. 2019. Human Health Risk Assessment Note Number 10:Toxicity Criteria. February 2019. Accessed at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2019/02/HHRA-Note-10-2019-02-25.pdf

7. Duvergé, Dylan Jacques, *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/2011_Arsenic_Background_Duverge.pdf December 2011.

8. Office of Environmental Health Hazard Assessment (OEHHA). 2023. 8-hour and Chronic Reference Exposure Level (REL) Summary. Accessed at https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary

APPENDIX A

Exhibit 1: Proposed Monitoring Locations by Phase



0 70 140 280 Feet



Operable Unit (OU)

- OU1 - Roadway
- OU2 - School Campus
- OU3 - Athletic Fields

Proposed Monitoring Locations

- OU1 - Roadway
- OU2 - School Campus
- OU3 - Athletic Fields

Project No.:	NB257123
Date:	05/06/2025
Drawn By:	SMB
Reviewed By:	JR

Terracon
1220 Concord Blvd., Ste 450 Concord, CA 94520
PH. (510) 547-7771 terracon.com

Proposed Air Monitor Locations

Wood Middle School
420 Grand Street
Alameda, Alameda County, California

Exhibit

1