

**Master City of San José Consultant Agreement
Approved Service Order
(Non-Capital Projects)**

Cover Page

-
- 1a.** Intentionally Omitted **1b.** AC Contract No.: 32001 (GILES OC-000369)
- 2.** Approved Service Order No. 23
- 3.** Consultant's Name: Cornerstone Earth Group, Inc. ("Consultant")
-

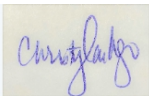
- 4.** Project Name: San José Fire Training Center Road ("Project")
- 5.** Project Location: 1591 Senter Road, San José, CA 95112
- 6.** The Consultant and the City will implement this Approved Service Order in accordance with the Master Agreement, this cover page and Attachments "A" (Tasks), "B" (Terms and Conditions), and "C" (Compensation Table), which are incorporated herein by references.
-

- 7. Budget/Fiscal:**
- | | | |
|---|----|---------|
| a. Current unencumbered amount in Master Agreement: | \$ | 393,856 |
| b. Maximum Service Order Compensation for this Approved Service Order: | \$ | 38,665 |
| c. New unencumbered balance in Master Agreement (7.a – 7.b): | \$ | 355,191 |

d. Appropriation Certification: I certify that an unexpended appropriation in the amount of the Maximum Service Order Compensation is available in the following fund(s) and that such fund(s) will be encumbered to pay for this Approved Service Order.

Fund: 001 (Dept. 76) Appn: 417L RC: 202155 Amount: \$38,665

Authorized Signature: _____ **Date:** _____



Email: christy.ngo@sanjoseca.gov
Date: 03/09/2023 GMT

8. Division Analyst Approval: _____ **Date:** _____



Email: sanjay.krishnaswamy@sanjoseca.gov
Date: 03/09/2023 GMT

9. Consultant Approval: _____ **Date:** _____



Email: cheiny@cornerstoneearth.com
Date: 03/09/2023 GMT

10. Approval as to Form (City Attorney):

- Service Order Form Approved by the Office of the City Attorney
(Maximum Service Order Compensation is \$100,000 or less, and the provisions of the service order form are not altered.)

Approved as to Form:

(Sr.) Deputy City Attorney

Date: _____

11. City Director Approval:

Napp Fukuda

Email: napp.fukuda@sanjoseca.gov
Date: 03/09/2023 GMT

Date: _____

Attachment A: Tasks

The Consultant shall provide the services and deliverables set forth in this **Attachment A**. The Consultant shall provide all services and deliverables required by this **Attachment A** to the satisfaction of the City's contract manager.

General Description of Project for which Consultant will Provide Services: The Site is located between Tenth Street and Senter Road, south of Alma Road, and the City of San José (City) currently is constructing the San José Fire Department Training Center, and the Emergency Operations Center and Office of Emergency Managements Building 1 and Building 2 (SJFTC). The construction consists of two (2) new office buildings (Buildings 1 and 2). The project plans also include structures for fire training purposes, a paved parking lot, and a lined bioretention basin on the former railroad spur portion of the Site.

Analysis of previous soil vapor samples collected on the western side of Parcel 1 reported concentrations of the chlorinated volatile organic compound (VOC) carbon tetrachloride at above the commercial Environmental Screening Levels (ESL, Water Board 2019). These results were presented to the Santa Clara County Department of Environmental Health (DEH) in Consultant's Site Management Plan (SMP) dated February 12, 2021 and in the Soil Vapor Assessment Report dated April 13, 2021. The DEH subsequently required vapor mitigation measures for the proposed structures on Parcel 1. Consultant prepared a Vapor Intrusion Mitigation System (VIMS) drawings that were provided to the project team on April 27, 2021 and a VIMS Design and Construction Quality Assurance Plan (VIMS Design and CQA Plan) on April 29, 2021. The DEH approved of the VIMS Design and CQA Plan in a letter dated May 19, 2021. This letter required completion of the following work prior to building occupancy:

- Preparation of a VIMS OM&M Plan
- Pre-occupancy verification monitoring

The May 19, 2021 directive letter also required completion of additional work that will be completed under separate scopes of work (either existing or future). These additional tasks include:

- Site Management Plan Completion Report
- Deed Restriction / Environmental Covenant
- Long-term verification monitoring – Two (2) events performed within twelve (12) months of building occupancy and one event within twenty-four (24) months of building occupancy

The Operation, Maintenance, and Management (OM&M) Plan will include the schedule and protocols for the long-term verification monitoring events, but implementation of these events will be performed under a separate scope of work.

The purpose of this scope of work is to prepare a VIMS OM&M Plan, perform the preoccupancy verification monitoring, and prepare a Pre-Occupancy Verification Monitoring Report.

Task No. 1: VIMS OM&M Plan

- A. Services:** Consultant will prepare an OM&M Plan that will present a detailed description and as-built plans of the VIMS, a plan for pre- and post-occupancy verification sampling to evaluate the effectiveness of the VIMS, and present general requirements and controls to monitor the long-term integrity of the VIMS. The OM&M Plan will be submitted to the DEH following completion of VIMS installation but prior the building occupancy as the OM&M Plan will include preoccupancy verification monitoring. The OM&M Plan will be prepared based on the requirements provided in the April 13, 2021 and May 19, 2021 DEH directive letters, and will include the following:

- Description of the VIMS components including as-built drawings prepared by the installation contractor.
- Procedures for the performance of two (2) pre-occupancy verification monitoring events (discussed further under Task 2).
- Procedures and schedule for performance of two (2) long-term verification monitoring events.
- Procedures and schedule for the periodic observation of visible components of the VIMS, such as piping, seals, membranes, and collection points to evaluate potential signs of degradation.
- Standard operating procedures (SOP) to collect air samples from the sub-slab monitoring probes and screened in the field for volatile hydrocarbons using an organic vapor meter.
- Requirements for reporting, recordkeeping, and notifications.
- Identification of personnel responsible for implementing the components of the OM&M Plan.
- Development of training protocols for personnel responsible for implementing the OM&M Plan, as needed.
- Identifications of various measures or criteria to determine if the VIMS is operating as intended or if system modifications/upgrades are indicated (i.e., conversion to an active system).
- Procedures for planned maintenance, interior improvements, or other work that could impact the operation and effectiveness of the VIMS, such as penetration of the concrete floor slab or planned modifications to the heating, ventilation, and air conditioning (HVAC) system.
- Reporting requirements and schedule.

B. Deliverable: The Consultant will provide the following to the City's Contract Manager: Report, SOPs, and Training Protocols

C. Completion Time: The Consultant must complete the services and deliverables for this task in accordance with whichever one of the following time is marked:

- On or before the following date: _____.
- On or before 25 Business Days from execution of this service order.

Task No. 2: Pre-Occupancy Verification Monitoring

A. Services: Consultant will perform two (2) pre-occupancy verification monitoring events as required by the April and May 2021 DEH directive letters. Details of these events will be presented to the DEH in the OM&M Plan for review and approval. The two (2) monitoring events will be performed prior to building occupancy and will include the collection of indoor air, outdoor air, and sub-slab air samples with the HVAC system on and off (separate events). A summary of these events is provided below:

- **HVAC-On Event:** The HVAC system will be continuously operated for approximately 36-hours prior to the start of this event. Indoor air samples will be collected over a 24-hour period with the HVAC on. Outdoor air samples will be collected during the same period to document the ambient air quality during the event. The indoor and outdoor samples will be collected in the same approximate location as the samples collected during the HVAC-Off event.
- **HVAC-Off Event:** Following completion of the HVAC-On event, the HVAC system will be turned off for approximately 36-hours and then the indoor air samples will be collected over a 24-hour period with the HVAC system remaining off. During this time, outdoor air samples will also be collected to document the ambient air quality during the sampling

event. Sub-slab soil vapor samples will also be collected during the HVAC-Off sampling event.

Construction activities should be minimized during the HVAC operation periods prior to each event, and those activities should not use materials containing VOCs. Construction activities and personnel will not be permitted within the buildings sampled during HVAC shut down or sampling periods. Only those personnel performing the sampling events are allowed within the building during these periods. The procedures for performing each sampling event are detailed below.

Pre-Sampling Activities

Prior to indoor air sampling, Consultant personnel will accompany the project mechanical engineer or other personnel knowledgeable of the HVAC system to document the condition of the HVAC system at the time of sampling (if needed). Consultant personnel will perform a pre-sampling building interior walk-through to record an inventory of potential sources of VOCs from construction or building materials which may interfere with sampling activities. Consultant will use a handheld organic vapor meter as a screening tool to evaluate for the presence of VOCs. Consultant will coordinate with the City if items are identified that Consultant recommends removal prior to sampling.

System Measurements

Consultant will attempt to collect vacuum measurements using an appropriately scaled micromanometer from the sub-slab monitoring probes and vent risers if accessible. Flow measurements can be obtained from the vent risers but may be below the limits of detection for a pitot tube, hotwire anemometer or other flow/velocity measurement device. Pressure differential readings between the indoor air and sub slab air will also be recorded. System measurements will be performed prior to and/or during each monitoring event.

Please note that diagnostic testing of a passive vapor mitigation system can be difficult due to the low and variable flow rates and vacuum pressures generated with this type of mitigation system. Thus, these data may not be useful to evaluate performance criteria of the passive system.

Sub-Slab Sampling

Sub-slab soil vapor samples will be collected from the three (3) monitoring probes installed with the permeable gravel venting layer beneath each building. Samples will be collected from each monitoring probe by connecting Teflon tubing (¼-inch diameter) to a dedicated sampling port and the other end of the tubing to a "T" fitting. A 6-liter Summa canister will be connected to one end of the "T" fitting and the other end of the "T" fitting will be affixed to a digital vacuum gauge and a 1-liter Summa canister utilized for purging.

A minimum 10-minute vacuum tightness test will be performed on the manifold and connections by opening and closing the 1-liter purge canister valve and applying and monitoring a vacuum on the vacuum gauge. The sample shut-off valve on the downhole side of the sampling manifold will remain in the "off" position. When gauge vacuum is maintained for at least 10 minutes without any noticeable decrease (less than approximately 0.1 inches of mercury (Hg) for properly connected fittings), purging will begin. The shut off valve will be opened and approximately three tubing volumes of vapor will be removed using the purging 1-liter Summa. The volume of air removed will be estimated by the calculated pressure drop in the purging Summa canister. The purge volume will be calculated based on the length and inner diameter of the Teflon sampling tube and the connected sampling tubing and equipment.

The sub-slab air samples will be collected in 6-liter Summa canisters using a 30-min flow

controller. The canister and sampling trains will be individually certified by the laboratory. Canister pressures will be measured before and after the monitoring period and will be verified on receipt at the laboratory. The samples will be submitted under standard chain of custody to an accredited laboratory in California and several other states under the National Environmental Laboratory Accreditation Program (NELAP), for analysis full list VOCs using EPA Method TO-15 GC/MS. We will request the laboratory analyze the samples on an approximate one-week response time, however actual laboratory response time will depend on their backlog, and workload.

Indoor/Outdoor Air Sampling

The HVAC-on event will be performed prior to the HVAC-off event. Approximately 120 hours will be required to complete the HVAC-on and HVAC-off monitoring events, which including time required for the pre-sampling HVAC operation and shutdown and each 24-hour event. These events will be performed sequentially, with the HVAC-on event performed first.

Consultant will collect five (5) indoor air samples from within Building 1, and three (3) indoor air samples from within Building 2 during each monitoring event. A replicate sample will be also collected from one of the indoor air sampling locations during each event. The intake sampling port of the Summa Canister will be placed approximately 3 to 4 feet above the ground surface. To the extent practical, doors, windows, intake vents, and other openings will remain closed during sampling activities. Outdoor air sampling will also be simultaneously performed at three locations: one sample will be collected at ground level at an up-wind location relative to the building and one sample from each building's rooftop.

The indoor and outdoor air samples will be collected in 6-liter Summa canisters using 24-hour flow controllers. The canister and sampling trains will be individually certified by the laboratory for low level SIM analyses. Canister pressures will be measured before and after the monitoring period and will be verified on receipt at the laboratory. The samples will be submitted under standard chain of custody to an analytical laboratory, for analysis of VOCs products using EPA Method TO-15 GC/MS. Consultant will request the laboratory analyze the samples on an approximate one-week response time.

- B. Deliverable:** The Consultant will provide the following to the City's Contract Manager: Laboratory Testing Results.
- C. Completion Time:** The Consultant must complete the services and deliverables for this task in accordance with whichever one of the following time is marked:
- On or before the following date: _____.
- On or before 20 Calendar Days from Task 1 completion.

Task No. 3: Reporting, Project Management, and Data Evaluation

- A. Services:** Consultant will prepare a Pre-Occupancy Verification Monitoring Report summarizing the results from the two (2) sampling events performed under this service order. The report will include a discussion of the sampling protocols, data summary tables, sample location maps, laboratory analytical reports, and field logs. Consultant will include conclusions and recommendations where appropriate. The report will be submitted to the DEH via GeoTracker for review and approval.
- B. Deliverable:** The Consultant will provide the following to the City's Contract Manager: Report.
- C. Completion Time:** The Consultant must complete the services and deliverables for this task in accordance with whichever one of the following time is marked:
- On or before the following date: _____.

On or before 15 Business Days from Task 2 completion.

Attachment B: Terms and Conditions

1. **City's Contract Manager:** The City's contract manager for this Approved Service Order is:

Name: Geoff Blair	Phone No.: 408-975-2576
Department: Environmental Services	Email: Geoffrey.Blair@sanjoseca.gov
Address: 200 E. Santa Clara Street, San José, CA 95113	

2. **Consultant's Contract Manager and Other Staffing:** Identified below are the following: (a) the Consultant's contract manager for this Approved Service Order, and (b) the Consultant(s) and/or employee(s) of the Consultant who will be principally responsible for providing the services and deliverables. ***If an individual identified below does not have a current Form 700 on file with the City Clerk for a separate agreement with the City, and is required to file a Form 700, the Consultant must comply with the requirements of Subsection 17.2 of the Master Agreement, entitled "Filing Form 700."***

		<u>Required to File Form 700?</u>		
		Yes Already Filed (Date Filed)	Yes Need to File	No
<u>Consultant's Contract Manager</u>				
Name: Chris Heiny, Principal Geologist	Phone No.: 925-705-5063			X
Address: 1220 Oakland Blvd, Suite 220, Walnut Creek, CA 94596	Email: cheiny@cornerstoneearth.com			
<u>Other Staffing</u>				
<u>Name:</u>	<u>Assignment:</u>	<u>Email:</u>		
Michael Chang	Senior Project Engineer	mchang@cornerstoneearth.com		X

3. Subconsultants: Whichever of the following is marked applies to this Approved Service Order:

- The Consultant can **not** use any subconsultants.
- The Consultant can use the following subconsultants to assist in providing the required services and deliverables:

<u>Subconsultant's Name</u>	<u>Area of Work</u>
Torrent Laboratories	Laboratory Testing
SVC Environmental, Inc.	Soil Vapor Probe Sampling

4. Reimbursable Expenses: If the Compensation Table set forth in **Attachment C** of this Approved Service Order states that the City will reimburse the Consultant for expenses, then only the expenses identified in Subsection 10.5.3 of the Master Agreement are Reimbursable Expenses unless the following box is marked and additional reimbursable expenses are set forth:

- In addition to the expenses identified in Subsection 10.5.3 of the Master Agreement, the following expenses are Reimbursable Expenses:

<u>Additional Reimbursable Expense(s)</u>	<u>Mark-up</u>
1. _____	_____
2. _____	_____
3. _____	_____

Notwithstanding the foregoing, any additional reimbursable expense(s) set forth in the above table will be disregarded if the Compensation Table states that the City will *not* reimburse the Consultant for any expenses.

Attachment C: Compensation Table

The City will compensate the Consultant for providing the services and deliverables set forth in **Attachment A** in accordance this Compensation Table. This Compensation Table is subject to the terms and conditions set forth in the Master Agreement, including without limitation Section 10 of the Master Agreement.

Part 1 – Compensation for Services and Deliverables			
Column 1	Column 2	Column 3	Column 4
Task Nos. from Attachment A	Basis of Compensation	Invoice Period	Compensation
1	<input type="checkbox"/> Time & Materials <input checked="" type="checkbox"/> Fixed Fee	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$6,750
2	<input checked="" type="checkbox"/> Time & Materials <input type="checkbox"/> Fixed Fee	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$26,165
3	<input type="checkbox"/> Time & Materials <input checked="" type="checkbox"/> Fixed Fee	<input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Completion of Task(s) <input type="checkbox"/> Completion of Work	\$5,750
Part 2 – Reimbursable Expenses			
<input checked="" type="checkbox"/> No expenses are separately reimbursable. The amount(s) in Column 4 of Part 1 include(s) payment for all expenses.		<input type="checkbox"/> Expenses are separately reimbursable in the maximum amount of:	\$
Part 3 – Subconsultant Costs			
<input checked="" type="checkbox"/> Subconsultant costs are not separately compensable. The amount(s) in Column 4 of Part 1 include(s) subconsultant costs.		<input type="checkbox"/> Subconsultant costs are separately compensable in the maximum amount of:	\$
Maximum Service Order Compensation (sum of Parts 1 through 3):			\$38,665

Attachment D: Sub Consultant Schedule of Rates and Charges

Torrent Laboratory	
Analytical (Standard Turnaround Time)	
Description	Rate
VOCs (TO-15) Sub-Slab Vapor	\$180.00 per sample
VOCs (TO-15 SIM) Indoor Air	\$230.00 per sample
Sampling Canisters SIM Certified	\$135.00 per canister
Canister Cleaning	\$15.00 per canister
SVC Environmental	
Soil Vapor Probe Sampling	
Description	Rate
Soil Vapor Probe Sampling (Hourly Rate)	\$135.00 per hour
Soil Vapor Sampling Manifold and Connections	\$100.00 per day
Miscellaneous consumables/Sampling Materials	\$100.00 per lump
PID Meter	\$150.00 per day