

**Agreement No.** Resolution No. 081083(c)

**AGREEMENT BETWEEN THE COUNTY OF SAN MATEO AND SHANNON AND WILSON, INC.**

This Agreement is entered into this Tuesday, March 11, 2025, by and between the County of San Mateo, a political subdivision of the state of California, hereinafter called "County," and Shannon and Wilson, Inc., hereinafter called "Contractor."

\* \* \*

Whereas, pursuant to Section 31000 of the California Government Code, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof; and

Whereas, it is necessary and desirable that Contractor be retained for the purpose of On-Call Geotechnical Engineering Services.

**Now, therefore, it is agreed by the parties to this Agreement as follows:**

**1. Exhibits and Attachments**

The following exhibits and attachments are attached to this Agreement and incorporated into this Agreement by this reference:

Exhibit A—Services

Exhibit B—Payments and Rates

Exhibit C—Sanctions Against Russia Letter of Compliance

**2. Services to be performed by Contractor**

In consideration of the payments set forth in this Agreement and in Exhibit B, Contractor shall perform services for County in accordance with the terms, conditions, and specifications set forth in this Agreement and in Exhibit A.

**3. Payments**

In consideration of the services provided by Contractor in accordance with all terms, conditions, and specifications set forth in this Agreement and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit B. County reserves the right to withhold payment if County determines that the quantity or quality of the work performed is unacceptable. In no event shall County's total fiscal obligation under this Agreement exceed SIX HUNDRED THOUSAND DOLLARS AND NO CENTS (\$600,000.00). In the event that the County makes any advance payments, Contractor agrees to refund any amounts in excess of the amount owed by the County at the time of contract termination or expiration. Contractor is not entitled to payment for work not performed as required by this agreement.

**4. Term**

Subject to compliance with all terms and conditions, the term of this Agreement shall be from Monday, March 3, 2025 through Thursday, March 2, 2028.

**5. Termination**

This Agreement may be terminated by Contractor or by the Interim Director or his/her designee at any time without a requirement of good cause upon thirty (30) days' advance written notice to the other party. Subject to availability of funding, Contractor shall be entitled to receive payment for work/services provided prior to termination of the Agreement. Such payment shall be that prorated portion of the full payment determined by comparing the work/services actually completed to the work/services required by the Agreement.

County may terminate this Agreement or a portion of the services referenced in the Attachments and Exhibits based upon the unavailability of Federal, State, or County funds by providing written notice to Contractor as soon as is reasonably possible after County learns of said unavailability of outside funding.

County may terminate this Agreement for cause. In order to terminate for cause, County must first give Contractor notice of the alleged breach. Contractor shall have five business days after receipt of such notice to respond and a total of ten calendar days after receipt of such notice to cure the alleged breach. If Contractor fails to cure the breach within this period, County may immediately terminate this Agreement without further action. The option available in this paragraph is separate from the ability to terminate without cause with appropriate notice described above. In the event that County provides notice of an alleged breach pursuant to this section, County may, in extreme circumstances, immediately suspend performance of services and payment under this Agreement pending the resolution of the process described in this paragraph. County has sole discretion to determine what constitutes an extreme circumstance for purposes of this paragraph, and County shall use reasonable judgment in making that determination.

## **6. Contract Materials**

At the end of this Agreement, or in the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and other written materials (collectively referred to as "contract materials") prepared by Contractor under this Agreement shall become the property of County and shall be promptly delivered to County. Upon termination, Contractor may make and retain a copy of such contract materials if permitted by law.

## **7. Relationship to Parties**

Contractor agrees and understands that the work/services performed under this Agreement are performed as an independent contractor and not as an employee of County and that neither Contractor nor its employees acquire any of the rights, privileges, powers, or advantages of County employees.

## **8. Hold Harmless**

### **a. General Hold Harmless**

Contractor shall indemnify and save harmless County and its officers, agents, employees, and servants from all claims, suits, or actions of every name, kind, and description resulting from this Agreement, the performance of any work or services required of Contractor under this Agreement, or payments made pursuant to this Agreement brought for, or on account of, any of the following:

(A) injuries to or death of any person, including Contractor or its employees/officers/agents to the extent cause by the Contractor or its employees/officers/agents;

(B) damage to any property of any kind whatsoever and to whomsoever belonging to the extent cause by the Contractor or its employees/officers/agents;

(C) any sanctions, penalties, or claims of damages resulting from Contractor's failure to comply, if applicable, with the requirements set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and all Federal regulations promulgated thereunder, as amended; or

(D) any other loss or cost, including but not limited to that caused by the concurrent active or passive negligence of County and/or its officers, agents, employees, or servants. However, Contractor's duty to indemnify and save harmless under this Section shall not apply to injuries or damage for which County has been found in a court of competent jurisdiction to be liable by reason of its own negligence or willful misconduct.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

## **9. Assignability and Subcontracting**

Contractor shall not assign this Agreement or any portion of it to a third party or subcontract with a third party to provide services required by Contractor under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement without penalty or advance notice.

## **10. Insurance**

### **10.1. General Requirements**

Contractor shall not commence work or be required to commence work under this Agreement unless and until all insurance required under this Section has been obtained and such insurance has been approved by County's Risk Management, and Contractor shall use diligence to obtain such insurance and to obtain such approval. Contractor shall furnish County with certificates of insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending Contractor's coverage to include the contractual liability assumed by Contractor pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to County of any pending change in the limits of liability or of any cancellation or modification of the policy.

### **10.2. Workers' Compensation and Employer's Liability Insurance**

Contractor shall have in effect during the entire term of this Agreement workers' compensation and employer's liability insurance providing full statutory coverage. In signing this Agreement, Contractor certifies, as required by Section 1861 of the California Labor Code, that (a) it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) it will comply with such provisions before commencing the performance of work under this Agreement.

### 10.3. Liability Insurance

Contractor shall take out and maintain during the term of this Agreement such bodily injury liability and property damage liability insurance as shall protect Contractor and all of its employees/officers/agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage which may arise from Contractor's operations under this Agreement, whether such operations be by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or an agent of either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amounts specified below:

(a) Comprehensive General Liability..... \$1,000,000 , (b) Motor Vehicle Liability Insurance..... \$1,000,000 , (c) Professional Liability..... \$1,000,000

County and its officers, agents, employees, and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that (a) the insurance afforded thereby to County and its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy and (b) if the County or its officers, agents, employees, and servants have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, County, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

## 11. **Compliance With Laws**

All services to be performed by Contractor pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, regulations, and executive orders, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability in programs and activities receiving any Federal or County financial assistance, as well as any required economic or other sanctions imposed by the United States government or under state law in effect during the term of the Agreement. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law, regulation, or executive order, the requirements of the applicable law, regulation, or executive order will take precedence over the requirements set forth in this Agreement.

Contractor will timely and accurately complete, sign, and submit all necessary documentation of compliance.

## **12. Non-Discrimination and Other Requirements**

### **12.1. General Non-discrimination**

No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.

### **12.2. Equal Employment Opportunity**

Contractor shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. Contractor's equal employment policies shall be made available to County upon request.

### **12.3. Section 504 of the Rehabilitation Act of 1973**

Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified individual with a disability shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of any services this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.

### **12.4. Compliance with County's Equal Benefits Ordinance**

Contractor shall comply with all laws relating to the provision of benefits to its employees and their spouses or domestic partners, including, but not limited to, such laws prohibiting discrimination in the provision of such benefits on the basis that the spouse or domestic partner of the Contractor's employee is of the same or opposite sex as the employee.

### **12.5. Discrimination Against Individuals with Disabilities**

The nondiscrimination requirements of 41 C.F.R. 60-741.5(a) are incorporated into this Agreement as if fully set forth here, and Contractor and any subcontractor shall abide by the requirements of 41 C.F.R. 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

### **12.6. History of Discrimination**

Contractor certifies that no finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other investigative entity. If any finding(s) of discrimination have been issued against Contractor within the past 365 days by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or other investigative entity, Contractor shall provide County with a written explanation of the outcome(s) or remedy for the discrimination prior to execution of this Agreement. Failure to comply with this Section shall constitute a material breach of this Agreement and subjects the Agreement to immediate termination at the sole option of the County.

### **12.7. Reporting; Violation of Non-discrimination Provisions**

Contractor shall report to the County Executive Officer the filing in any court or with any administrative agency of any complaint or allegation of discrimination on any of the bases prohibited by this Section of the Agreement or the Section titled "Compliance with Laws". Such duty shall include reporting of the filing of any and all charges with the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other entity charged with the investigation or adjudication of allegations covered by this subsection within 30 days of such filing, provided that within such 30 days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall include a general description of the circumstances involved and a general description of the kind of discrimination alleged (for example, gender-, sexual orientation-, religion-, or race-based discrimination).

Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the Contractor to penalties, to be determined by the County Executive Officer, including but not limited to the following:

- i. termination of this Agreement;
- ii. disqualification of the Contractor from being considered for or being awarded a County contract for a period of up to 3 years;
- iii. liquidated damages of \$2,500 per violation; and/or
- iv. imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Executive Officer.

To effectuate the provisions of this Section, the County Executive Officer shall have the authority to offset all or any portion of the amount described in this Section against amounts due to Contractor under this Agreement or any other agreement between Contractor and County.

### **13. Compliance with County Employee Jury Service Ordinance**

Contractor shall comply with Chapter 2.85 of the County's Ordinance Code, which states that Contractor shall have and adhere to a written policy providing that its employees, to the extent they are full-time employees and live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with Contractor or that the Contractor may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, Contractor certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if Contractor has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of San Mateo County's jury service ordinance, Contractor certifies that it has no full-time employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, Contractor shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code." The requirements of Chapter 2.85 do not apply unless this Agreement's total value listed in the Section titled "Payments", exceeds two-hundred thousand dollars (\$200,000); Contractor

acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value exceeds that threshold amount.

#### **14. Retention of Records; Right to Monitor and Audit**

(a) Contractor shall maintain all required records relating to services provided under this Agreement for three (3) years after County makes final payment and all other pending matters are closed, and Contractor shall be subject to the examination and/or audit by County, a Federal grantor agency, and the State of California.

(b) Contractor shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by County.

(c) Contractor agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.

#### **15. Merger Clause; Amendments**

This Agreement, including the Exhibits and Attachments attached to this Agreement and incorporated by reference, constitutes the sole Agreement of the parties to this Agreement and correctly states the rights, duties, and obligations of each party as of this document's date. In the event that any term, condition, provision, requirement, or specification set forth in the body of this Agreement conflicts with or is inconsistent with any term, condition, provision, requirement, or specification in any Exhibit and/or Attachment to this Agreement, the provisions of the body of the Agreement shall prevail. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications or amendments shall be in writing and signed by the parties.

#### **16. Controlling Law; Venue**

The validity of this Agreement and of its terms, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law or conflict of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California.

#### **17. Notices**

Any notice, request, demand, or other communication required or permitted under this Agreement shall be deemed to be properly given when both: (1) transmitted via email to the email address listed below; and (2) sent to the physical address listed below by either being deposited in the United States mail, postage prepaid, or deposited for overnight delivery, charges prepaid, with an established overnight courier that provides a tracking number showing confirmation of receipt.

In the case of County, to:

Sam Lin/Interim Director  
500 County Center, 5th Floor, Redwood City, CA, 94063  
(408) 391-5150  
slin@smcgov.org

In the case of Contractor, to:

Callan Yu/Associate and Geotechnical Engineer  
4085 Nelson Avenue, Suite A, Concord, CA 94520  
(925) 685-6300  
callan.yu@shanwil.com

## **18. Electronic Signature**

Both County and Contractor wish to permit this Agreement and future documents relating to this Agreement to be digitally signed in accordance with California law and County's Electronic Signature Administrative Memo. Any party to this Agreement may revoke such agreement to permit electronic signatures at any time in relation to all future documents by providing notice pursuant to this Agreement.

## **19. Reimbursable Travel Expenses**

To the extent that this Agreement authorizes reimbursements to Contractor for travel, lodging, and other related expenses as defined in this section, the Contractor must comply with all the terms of this section in order to be reimbursed for travel.

- A. Estimated travel expenses must be submitted to authorized County personnel for advanced written authorization before such expenses are incurred. Significant differences between estimated and actual travel expenses may be grounds for denial of full reimbursement of actual travel expenses.
- B. Itemized receipts (copies accepted) for all reimbursable travel expenses are required to be provided as supporting documentation with all invoices submitted to the County.
- C. Unless otherwise specified in this section, the County will reimburse Contractor for reimbursable travel expenses for days when services were provided to the County. Contractor must substantiate in writing to the County the actual services rendered and the specific dates. The County will reimburse for travel at 75% of the maximum reimbursement amount for the actual costs of meals and incidental expenses on the day preceding and/or the day following days when services were provided to the County, provided that such reimbursement is reasonable, in light of travel time and other relevant factors, and is approved in writing by authorized County personnel.
- D. Unless otherwise specified within the contract, reimbursable travel expenses shall not include Local Travel. "Local Travel" means travel entirely within a fifty-mile radius of the Contractor's office and travel entirely within a fifty-mile radius of San Mateo County. Any mileage reimbursements for a Contractor's use of a personal car for reimbursable travel shall be reimbursed based on the Federal mileage reimbursement rate.
- E. The maximum reimbursement amount for the actual lodging, meal and incidental expenses is limited to the then-current Continental United States ("CONUS") rate for the



location of the work being done (i.e., Redwood City for work done in Redwood City, San Mateo for work done at San Mateo Medical Center) as set forth in the Code of Federal Regulations and as listed by the website of the U.S. General Services Administration (available online at <http://www.gsa.gov/portal/content/104877> or by searching [www.gsa.gov](http://www.gsa.gov) for the term 'CONUS'). County policy limits the reimbursement of lodging in designated high cost of living metropolitan areas to a maximum of double the then-current CONUS rate; for work being done outside of a designated high cost of living metropolitan area, the maximum reimbursement amount for lodging is the then-current CONUS rate.

- F. The maximum reimbursement amount for the actual cost of airfare shall be limited to fares for Economy Class or below. Air travel fares will not be reimbursed for first class, business class, "economy-plus," or other such classes. Reimbursable car rental rates are restricted to the mid-level size range or below (i.e. standard size, intermediate, compact, or subcompact); costs for specialty, luxury, premium, SUV, or similar category vehicles are not reimbursable. Reimbursable ride-shares are restricted to standard or basic size vehicles (i.e., non-premium vehicles unless it results in a cost-saving to the County). Exceptions may be allowed under certain circumstances, such as unavailability of the foregoing options, with written approval from authorized County personnel. Other related travel expenses such as taxi fares, ride-shares, parking costs, train or subway costs, etc. shall be reimbursable on an actual-cost basis. Reimbursement of tips for taxi fare, or ride-share are limited to no more than 15% of the fare amount.
- G. Travel-related expenses are limited to: airfare, lodging, car rental, taxi/ride-share plus tips, tolls, incidentals (e.g. porters, baggage carriers or hotel staff), breakfast, lunch, dinner, mileage reimbursement based on Federal reimbursement rate. The County will not reimburse for alcohol.
- H. Reimbursement of tips are limited to no more than 15 percent. Non-reimbursement items (i.e., alcohol) shall be excluded when calculating the amount of the tip that is reimbursable.

**20. Exhibit A and B**

### **Exhibit A**

In consideration of the payments set forth in Exhibit B, Contractor shall provide the following services:

Contractor shall provide professional geotechnical engineering services as needed. Services required may include but are not limited to geotechnical/seismic investigation, soils testing (soil profiling and characterization), recommendation for foundation design, site preparation and other design requirements relevant to the site conditions, geotechnical construction observation and testing during construction and/or renovation for various facility sites. Such services may also include reviewing background information, conducting field exploration studies, laboratory testing and analysis, coordination with design teams including the Architects and Structural Engineers, and attendance of various project meetings. All work performed shall comply with the approved construction documents, applicable codes, and regulations.

The initial scope of work for each project will be established prior to the issuing of a task order. Dependent upon the Project's needs, Contractor may be requested to perform various geotechnical related tasks at different phases of design and construction such as:

1. Supervision of all work must be conducted by a registered Geotechnical Engineer ("GE") and/or a Certified Engineering Geologist ("CEG"), as required in the state of California.
2. Contractor shall provide all necessary equipment and other devices as needed to assure all work is done in a timely and professional manner to deliver the required deliverables.
3. Preparation of environmental assessment reports.
4. Perform geotechnical investigations as needed for submission to the relevant reviewing agency/agencies having jurisdiction and adequately provide the technical data needs of the Architectural/Structural design team to support the development of Construction Drawings and Specifications.
  - a. Perform geotechnical feasibility assessment that shall include but not be limited to a desk study (review of existing geotechnical data, public documentation, geologic maps, aerial photographs, historic groundwater level, FEMA flood maps, etc.), preliminary geotechnical exploration and report preparation (summary of findings with preliminary assessment of site conditions and initial recommendation to support building design). Limited exploration shall be performed using Cone Penetration Test (CPT) equipment to identify site hazards, such as liquefaction and soft soil settlement potentials, and provide preliminary soil information for project planning and budgeting purposes.
  - b. Perform design level geotechnical report based on the findings from the feasibility assessment that shall include but not be limited to soil borings (locations, type and depth), detailed geotechnical exploration (drilling, laboratory testing of select soil samples for moisture-density, Atterberg Limits, gradation, strength, corrosivity, consolidation tests, and R-value, etc.), detailed report on the site conditions, constraints, mitigation measures (if applicable), load-induced ground settlement, foundation design recommendation, ground water mitigation (if needed), etc.
5. Soils testing as needed for profiling and characterization.
6. Review existing soils reports from nearby projects.

7. Provide direction for any special surface and/or subgrade soil treatments required.
8. Provide direction for any special issues associated with utility relocations.
9. Identify groundwater levels and bedrock elevations.
10. Determine allowable soil bearing pressure and lateral resistance.
11. Determine areas of undocumented fill versus undisturbed native soils.
12. Define the parameters for controlled fill, backfill, subgrade preparations, over-excavation and re-compact, scarifications and re-compact, proof-rolling, dewatering, compaction, utility trenches, etc.
13. Review and make recommendations for asphalt paving sections, concrete paving sections, concrete SOG section, concrete flatwork, concrete swales, curb and gutter.
14. Provide required geological, seismic, and geotechnical testing and, apply experience and expertise respecting all of the foregoing to address surface drainage, foundation drainage, waterproofing of retaining walls and planters, water stops, etc.
15. Address soil corrosion, soil soluble chlorides, and soil soluble sulfides.
16. Address and specifically analyze the predicted horizontal and vertical movements between structural components as it relates to seismic forces and differential settlement.
17. Preparation of reports shall include foundation, site preparation and underground steel protection recommendations as appropriate.
18. Participate in the constructability review of project documents with the Project Development Unit and respective design teams during design and construction phases.
19. At completion of project, deliver all records, project correspondence and final reports to the County.
20. Work as a liaison with Regulatory Agencies having jurisdiction as is required to provide guidance to the County and others as deemed necessary.
21. Perform/incorporate Regulatory Agency Requirements.
22. Coordinate and work with the County and its consultants.
23. Attend Meetings and other general project coordination duties, as required.

The County may request from the Contractor to provide any or all of the above tasks, according to the nature of the project(s) assigned. Contractor must be so staffed as to render these services expeditiously upon request.

**Exhibit B**

In consideration of the services provided by Contractor described in Exhibit A and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

<b>POSITIONS</b>	<b>HOURLY RATE</b>
<b>Officers/Associates</b>	
Senior Associate	\$290
Associate	\$260
<b>Engineering/Geology/Hydrology/Environmental</b>	
Senior Professional III	\$240
Senior Professional II	\$225
Senior Professional I	\$210
Professional IV	\$195
Professional II,III	\$180
Professional I	\$160
<b>Field and Lab Technician/Drafter/Technical Assistant</b>	
Technical Services (Senior, IV)	\$165
Technical Services (III, II, I)	\$145
<b>Special Services</b>	
Instrumentation Specialist	\$210

**Shannon & Wilson Laboratory Services Subcontractors**



## 2025 Standard Schedule of Charges

<b>Labor Classification</b>	<b>Hourly Rate</b>
Senior Principal	\$320
Principal Engineer/Scientist	\$301
Senior Associate Engineer/Scientist	\$282
Associate Engineer/Scientist	\$264
Senior Project Engineer/Scientist	\$247
Project Engineer/Scientist	\$230
Senior Staff 2 Engineer/Scientist	\$213
Senior Staff 1 Engineer/Scientist	\$193
Staff 2 Engineer/Scientist	\$171
Staff 1 Engineer/Scientist	\$149
Senior Technician	\$156
Technician 3	\$136
Technician 2	\$114
Technician 1	\$96
Senior Editor/Senior Project Coordinator	\$166
Editor 2/Project Coordinator 2/Accountant 2	\$147
Editor 1/Project Coordinator 1/Accountant 1	\$122
Administrator/Project Assistant/Billing Specialist	\$103

# 2024 Pitcher Services, LLC Labor & Equipment Rates

	\$/9hr/Day
<b>Mud Rotary Truck Drill- 2 person crew</b>	
Drill Time - Mud Rotary (Non PW)	\$ 4,400.00
Drill Time- Mud Rotary w/mud conditioning system	\$ 5,000.00
Standby or Well Development	\$ 4,400.00
Mob/demob	\$ 550.00/hr
Overtime a (2 man crew)	\$ 660.00/hr
Transportation	\$ 520.00/hr

<b>Mud Rotary Track Drill- 2 person crew</b>	
Drill time - Mud Rotary (Non PW)	\$ 5,200.00
Standby Time & Well Development	\$ 5,200.00
Mob/Demob	\$ 600.00/hr
Overtime any hrs over 9 (2 man crew)	\$ 740.00/hr
Transportation (when rig can be left on-site)	\$ 520.00/hr

<b>Overtime Surcharge Rates (2 person crew)</b>	
Night Shift (Premium Time Surcharge)	\$ 160.00/hr
Saturday Shift	\$ 160.00/hr
Sunday Shift	\$ 320.00/hr

<b>CPT Rig</b>	
Rig Time (Non PW)	\$ 5,200.00
Overtime (2 man crew)	\$ 740.00/hr
Mob/Demob	\$ 500.00/hr

<b>Footage Rates</b>	
Drilling Additives (Normal Conditions 5" boring)	\$ 5.00/ft
Portland Cement Grout (5" boring)	\$ 5.00/ft
HQ3 Coring Surcharge	\$ 14.00/ft
101 GeoBarrel Surcharge	\$ 14.00/ft
PQ Coring Surcharge	\$ 22.00/ft

## Other Labor Costs

Additional Technician (extra helper) - ADD:	\$140/hr.
Premium time after 9 hours,Night or Saturday	\$80/man hr
Sunday or Holiday work - ADD:	\$160/man hr
Level C Protection (per day or portion) - ADD:	\$160/man day
Per Diem	\$300.00/man
Prevailing Wage or Certified Payroll Surcharge	\$2 \$300.00/man
Transportation per additional tech	\$250/man day

<b>CPT Footage Rates</b>	
Seismic Surcharge seismic test every 5'	\$ 28.00/ea
Portland cement grout	\$ 3.00/ft

## REPAIR COSTS

WASTE BARREL REPAIR \$200/each

## Site Meetings, inspects or submittals

Pick up truck rental \$260/day  
Managers or Foremans \$170.00/hr.

## Drill Spoils Analysis, Transport & Disposal

Contingent upon drill spoils testing Non-Hazardous.

Drill Spoils Analysis \$1400/each  
Drill Spoils Transport in 55-Gal. drums \$80.00/each  
Drill Spoils Disposal \$200.00/each

Prices do not include staging of drums off site.

## Equipment

Decon Station	\$450/day
Mud system (mud rotary as needed)	\$600/day
Support truck (pick-up)	\$300/day
Support truck (stake bed)	\$500/day
Support truck (Lift Gate)	\$500/day
Support Track (Morooka)	\$1000/day
Support truck (water-truck)	\$600/day

## Materials

Quik-Gel drilling mud 50lb	\$35/bag
Soda Ash 50lb	\$30/bag
Easy Mud 5-gal	\$300/bucket
Easy Mud Gold 10lb	\$300/bucket
N-Seal 30lb	\$180/bag
Filter Sand	\$15/bag
Coated Bentonite Pellets	\$140/bucket
Bentonite Chips	\$24/bag
Bentonite Powder	\$35/bag
Ready Mix Concrete 60lb	\$18/bag
Portland Cement Type II 47lb	\$18/bag
Asphalt Patch	\$48/bag
Quickset Concrete	\$22/bag
Wood Plug	\$25/each
7" Traffic Rated Monitoring Well Boxes	\$200/each
8" Traffic Rated Monitoring Well Boxes	\$250/each
12" Traffic Rated Monitoring Well Boxes	\$350/each
Anodized Standpipe	\$400/each
Plastic Liners in 2.5' sections	\$15/ft
Cardboard core Boxes	\$35/box
Wooden Core Boxes	\$85.00/box
PVC core trays	\$5/tray
DOT 17-H 55 Gal. Drums	\$85/each
5-gallon bucket	\$15/each
Brass Sleeves & Caps (6" long)	\$10/each
Stainless Steel Sleeves & Caps (6" long)	\$10/each
Acetate Liners for Macro Core	\$15/each
Visqueen (large roll)	\$220/roll
Disposable Tips	\$30/each
1/4" or 1/2" Tubing	\$0.75/ft
3" soil seals	\$25.00ea
3" Pitcher or Shelby Tube 36" long	\$65/each
1eflon Squares (pack of 100)	\$100/pack

## PVC Schedule 40

2" PVC Screen 0.010" or 0.020"	\$9.00/ft
2" PVC Blank casing	\$7.00/ft
2" PVC threaded end cap	\$12.00/each
2" PVC slip cap or coupling	\$6/each
2" Locking Cap	\$35.00/each
4" PVC Screen 0.010" or 0.020"	\$20.00/ft
4" PVC Blank casing	\$16.00/ft
4" PVC threaded end cap	\$24.00/each
4" PVC slip cap or coupling	\$16/each
4" Locking Cap	\$50.00/each
3/4" PVC Screen 0.010" or 0.020"	\$7.00/ft
3/4" PVC Blank casing	\$6.00/ft
3/4" PVC fittings	\$4.00/each





# Price Quotation

506 De Carlo Ave  
Richmond, CA 94801  
Tel: 925-849-2989  
Website: [www.conetec.com](http://www.conetec.com)

Contact: Catherine Ellis  
Firm: Shannon & Wilson  
Office:  
Telephone:  
E-mail: [catherine.ellis@shanwil.com](mailto:catherine.ellis@shanwil.com)  
Date: 12/4/2024  
Site: 2025 Rate Sheet

Item	Description	Rate	Unit	Est. Qty.	Est. Total
<b>CPT/DPT Services</b>					
1	Mobilize/demobilize CPT rig	\$ 300	hour	0	\$ -
2	Interim crew travel (to/from hotel)	\$ 250	shift	0	\$ -
3	Shift rate (up to 8 hours on site)	\$ 4,250	shift	0	\$ -
4	Overtime rate (past 8 hours)	\$ 650	hour	0	\$ -
5	HRSC equipment and operator (8 hour shift)	\$ 2,500	shift	0	\$ -
6	eVST equipment and operator (8 hour shift)	\$ 1,500	shift	0	\$ -
7	Dilatometer equipment and operator (8 hour shift)	\$ 1,500	shift	0	\$ -
8	Support truck shift rate	\$ 300	shift	0	\$ -
9	Vs data processing	\$ 20	interval	0	\$ -
10	Borehole abandonment	\$ 125	sounding	0	\$ -
11	Per diem (per person)	\$ 300	shift	0	\$ -
12	Concrete drill out bit wear	\$ 100	boring	0	\$ -
13	Grout plant mobilization	\$ 500	shift	0	\$ -
14	Project specific training (per person)	\$ 125	hour	0	\$ -
15	Mud mat mobilization	\$ 500	lump	0	\$ -
16	55 gallon drums	\$ 110	each	0	\$ -
17	Soil sample liners	\$ 10	each	0	\$ -
18	Groundwater sampling consumables	\$ 3	foot	0	\$ -
19	Soil vapor probe consumables	\$ 150	each	0	\$ -
20	Prevailing wage (per person, portal to portal)	\$ 95	hour	0	\$ -
<b>Drilling Services</b>					
1	Mobilize/demobilize drill rig	\$ 300	hour	0	\$ -
2	Interim crew travel (to/from hotel)	\$ 250	shift	0	\$ -
3	Shift rate for drill rig (9 hours on site)	\$ 3,500	shift	0	\$ -
4	Overtime rate (over 9 hours on site)	\$ 500	hour	0	\$ -
5	Support truck shift rate	\$ 300	shift	0	\$ -
6	Borehole abandonment	\$ 10	foot	0	\$ -
7	Shelby tubes	\$ 40	each	0	\$ -
8	Mod cal liners	\$ 15.00	each	0	\$ -
9	2" PVC screen and riser	\$ 7.00	foot	0	\$ -
10	55 gallon drums	\$ 110	each	0	\$ -
11	Well box and surface completion- 8"	\$ 150	each	0	\$ -
12	Sand, bentonite crumbles, super gel- per bag	\$ 25	bag	0	\$ -
13	Plastic sheeting	\$ 150	boring	0	\$ -
14	Forklift rental	\$ 600	shift	0	\$ -
15	Decontamination equipment	\$ 250	shift	0	\$ -
16	Mud puppy/desander mobilization	\$ 500	shift	0	\$ -
17	eVST system mobilization and operator	\$ 1,750	shift	0	\$ -
18	Pressuremeter mobilization and operator	TBD	shift	TBD	TBD
19	Packer testing mobilization	TBD	shift	TBD	TBD
20	Project specific training (per person)	\$ 120	hour	0	\$ -
21	Per diem (per person)	\$ 300	shift	0	\$ -
22	Mud mat mobilization	\$ 500	lump	0	\$ -
23	Prevailing wage (per person, portal to portal)	\$ 95	hour	0	\$ -
<b>Geophysical services (MASW, SRT, ERT, downhole)</b>					
1	Mobilize/demobilize equipment	\$ 200	hour	0	\$ -
2	Shift rate (8 hours on site)	\$ 3,000	shift	0	\$ -
3	Support truck	\$ 300	shift	0	\$ -
4	Data processing	\$ 350	shift	0	\$ -
5	Prevailing wage (per person, portal to portal)	\$ 95	hour	0	\$ -

Index Tests:		Hydraulic Conductivity - Triaxial Permeability:	
4101	Moisture Content ASTM D2216.....	45.00 /ea	4501 Flexible Wall ASTM D5084..... 440.00 /ea
4102	Moisture and Density (Tube Sample).....	56.00 /ea	Additional Costs:
4103	Liquid and Plastic Limits ASTM D4318.....	200.00 /ea	4502 Additional Confining Pressure..... 260.00 /ea
4104	% passing #200 sieve ASTM D1140.....	115.00 /ea	4503 Remold Test Specimen..... 205.00 /ea
4105	Sieve (from 1/2" to #200) ASTM D422.....	170.00 /ea	4504 Sample Photos..... 20.00 /ea
4106	Hydrometer test, incl. 1/2" to #200 sieve ASTM D422.....	265.00 /ea	
4107	Specific Gravity ASTM D854.....	210.00 /ea	<b>Strength Tests:</b>
4108	Organic Content ASTM D2974.....	125.00 /ea	4601 Direct Shear Test ASTM D3080..... 205.00 /pt
4109	Visual Classification.....	40.00 /ea	Additional Costs:
4110	pH Determination Soil/Lime ASTM D6276.....	200.00 /ea	4602 Residual (per cycle)..... 88.00 /ea
4111	Torvane/Pocket Penetrometer.....	35.00 /ea	4603 Remold Test Specimen..... 135.00 /ea
Additional Costs:			4604 Specimen Trim (from 3" sample)..... 45.00 /ea
4112	Large Sample Size (Bucket/Shelby Tube).....	78.00 /ea	4605 Silty Soil..... 28.00 /ea
4113	Shelby Tube Logging.....	72.00 /ea	4606 Clayey Soil..... 45.00 /ea
4114	Extrusion Only without Testing.....	45.00 /ea	4607 Sample Photos..... 20.00 /ea
4115	Tube Cutting.....	20.00 /ea	
4116	Sample Photos.....	20.00 /ea	4610 Unconfined Compression ASTM D2166..... 132.00 /ea
<b>Compaction Tests:</b>			4646 UC-Soft Rock (without end prep)..... 150.00 /ea
4201	Laboratory Compaction, 4" Mold ASTM D1557 or D698.....	310.00 /ea	Additional Costs:
4202	Laboratory Compaction, 6" Mold ASTM D1557 or D698.....	370.00 /ea	4611 Specimen Capping..... 45.00 /ea
4203	California Impact Test CTM 216.....	425.00 /ea	4612 Remold Test Specimen..... 205.00 /ea
Additional Costs:			4613 Sample Photos..... 20.00 /ea
4204	Rock Correction ASTM D4718.....	82.00 /ea	4620 TXUU, Triaxial Unconsolidated Undrained ASTM D..... 170.00 /ea
			4647 TXUU-Soft Rock (without end prep)..... 340.00 /ea
<b>Soil Mechanics:</b>			Additional Costs:
4301	R-Value of Compacted Soils ASTM D2844 /CTM 301.....	555.00 /ea	4621 Confining Pressure over 50 psi..... 38.00 /ea
4302	R-Value of Compacted Soils w/Lab Additives ASTM D2844 /CTM 3.....	690.00 /ea	4622 Remold Test Specimen..... 205.00 /ea
4303	R-Value of Compacted Soils w/Field Additives ASTM D2844 /CTM 3.....	600.00 /ea	4623 Sample Photos..... 20.00 /ea
4304	California Bearing Ratio (CBR) ASTM D1883 includes compaction.....	900.00 /ea	4630 TXCU, Triaxial Consolidated Undrained ASTM D476..... 620.00 /pt
4305	California Bearing Ratio (CBR) ASTM D1883 without compaction.....	555.00 /ea	Note: TXCU includes pore pressure measurement
<b>Consolidation Properties:</b>			Additional Costs:
4401	Consolidation Test w/rebound ASTM D2435.....	470.00 /ea	4631 Confining Pressure over 50 psi..... 50.00 /ea
4402	Swell or Collapse Test ASTM D4546.....	395.00 /ea	4632 Remold Test Specimen..... 205.00 /ea
4403	Collapse Potential Test ASTM D5333.....	260.00 /ea	4633 Staged Test (Additional Confining Pressure)..... 395.00 /ea
Additional Costs:			4634 With Permeability..... 260.00 /ea
4404	Unload-Reload (per point).....	45.00 /ea	4635 Sample Photos..... 20.00 /ea
4405	Remold Test Specimen.....	135.00 /ea	4640 TXCD, Triaxial Consolidated Drained..... 930.00 /pt
4406	Specimen Trim (from 3" sample).....	45.00 /ea	Additional Costs:
4407	Sample Photos.....	20.00 /ea	4641 Confining Pressure over 50 psi..... 50.00 /ea
			4642 Remold Test Specimen..... 205.00 /ea
			4643 Staged Test (Additional Confining Pressure)..... 395.00 /ea
			4644 With Permeability..... 260.00 /ea
			4645 Sample Photos..... 20.00 /ea
			4648 End Preparation..... 148.00 /hr





## GEOTECHNICAL / ENVIRONMENTAL & CORROSION TESTING SCHEDULE OF CHARGES

### CLASSIFICATION & INDEX TESTS

<b>Atterberg Limits</b> (ASTM D4318)	
Liquid & Plastic Limits	
Wet Prep method	293
Dry Prep method (CTL default)	204
<b>Moisture Content</b> (ASTM D2216)	26
<b>Moisture &amp; Density</b> (ASTM D7263b)	
2.0 to 2.5" Diameter	30
3.0" Diameter	45
4.0" Diameter	111
6.0" Diameter	178
<b>Chunk Density</b> (ASTM D7263a)	112
<b>Particle Size Analysis</b>	
Bulk Sieve (if gravelly or >5Kg) add	86
<b>Sieve Analysis</b> (ASTM D 422)	136
with Hydrometer (ASTM D 422)	230
<b>Sieve Analysis</b> (ASTM D 6913)	147
with Hydrometer (ASTM D 7928)	242
<b>#200 Sieve Wash</b> (ASTM D 1140)	97
<b>Specific Gravity</b> (Particle Density)	
(ASTM D854) - #4 Sieve	112
(ASTM C127) + #4 Sieve	198
(ASTM C128) - #4 Sieve	221
<b>Organic Content</b> (ASTM D2974)	112
<b>Fraction Organic Carbon (FOC)</b>	
By Walkley Black (subcontracted)	71
<b>Porosity</b>	
<b>Total</b> (ASTM D7263 / API RP40)	
(Includes Moisture Content, Dry Density & Specific Gravity)	138
<b>Effective</b> (ASTM D6836m)	
(Includes Total Porosity, Moisture Content, Dry Density & Specific Gravity)	297

### MOISTURE DENSITY RELATIONS

<b>Standard Proctor</b> (ASTM D698)	
4-inch mold	328
6-inch mold	392
<b>Modified Proctor</b> (ASTM D1557)	
4-inch mold (w/ assumed Gs for rock corr.)	328
6-inch mold (w/ assumed Gs for rock corr.)	392
For Measured Gs for Rock Correction add	198
Insufficient quantity add per point	89
<b>Cal-Impact</b> (Caltrans 216)	441
<b>Max Index Density</b> (ASTM D4253)	
0.1 ft <sup>3</sup> mold	303
0.5 ft <sup>3</sup> mold	457
<b>Minimum Density</b> (ASTM D4254)	
0.1 ft <sup>3</sup> mold	152
0.5 ft <sup>3</sup> mold	303

### STRENGTH TESTS

<b>Unconfined Comp.</b> (ASTM D2166)	91
<b>Direct Shear</b> per point	
(CD) (ASTM D3080)	262
(UU) Modified ASTM	115
(CU) Modified ASTM	115
⇒ DSUU & DSCU are not ASTM approved	

### TORSIONAL RING SHEAR

(All prices are per point)	
* Overconsolidated Peak	412
* Fully Softened Peak (ASTM D7608)	387
* Residual (ASTM D6467)	387
* Residual Additional Points, per	360
⇒ Torsional tests can be run on intact (undisturbed) or reconstituted specimens. All above tests are Drained.	
⇒ Reconstituted samples are typically tested near the liquid limit and are prepared over the #40 sieve.	
⇒ For the Stark method of testing only the #200 material, Per Envelope add	
	63

### TRIAXIAL COMPRESSION

(All prices are per point for 2-3" diameter samples)	
<b>Unconsolidated-Undrained</b>	
ASTM D2850 (TX-UU)	167
Back Press. Saturated add	113
<b>Consolidated-Undrained</b>	
ASTM D4767 Modified (TX-ICU)	303
<b>Consolidated-Undrained w/pp</b>	
ASTM D4767 (TX-ICU-PP)	587
<b>Consolidated-Drained</b>	
ASTM D7181 (TX-ICD)	751
<b>Confining Stress Conditions</b>	
Isotropic	default
Anisotropic add to above prices	212
K <sub>o</sub> add to above prices	328

<b>Large Scale Triax Testing (w/ re-molding):</b>	
4.0" diameter Triax per point	add 664
6.0" diameter Triax per point	add 1388
<b>Large Scale Triax (undisturbed)</b>	
4.0" diameter Triax per point	add 431
6.0" diameter Triax per point	add 719

**Triaxial Consolidation** on large samples will be limited to a maximum consolidation phase of 5 days, unless requested otherwise. Over 5 days add-per-day 83

### TRIAX (continued)

**Staged Tests** multiply the price of a single point by two for a two or three point envelope. (for all triaxial tests above)

### CONSOLIDATION TESTS

<b>Consolidation</b> (ASTM D2435)	473
Includes full curve with 3 points on the virgin curve, timed readings and rebound.	
<b>Preliminary Reports Add</b>	19
<b>Rebound-Reload, per load</b>	49
<b>Client Provided Loads Add</b>	47
<b>Triaxial K<sub>o</sub> Consolidation</b> measured lateral pressure (2-3" diam.)	808
Large Scale K <sub>o</sub> (For sample diameter larger than 2-3" see large Scale Triaxial Testing)	

### EXPANSION / COLLAPSE TESTS

<b>Expansion Pressure Curve</b> (ASTM D3877m)	194
Multi point expansion pressure curve to free swell.	
<b>Shrink-Swell</b> (ASTM D3877m)	194
⇒ Multi point volume change curve including field, saturated, air-dried and oven dried conditions.	
<b>Shrink-Swell w/Expansion Pressure Curve</b> (ASTM D3877m)	352
⇒ This procedure was originally developed for lime treated soils. We have found it to be useful for untreated soils. There are many different types of expansion tests. In our opinion this procedure is the most comprehensive and thorough procedure. This is our default expansion test procedure.	
⇒ Air dried prior to test	add 36
<b>Expansion Index</b> (ASTM D4829)	493
⇒ This test is run at 48-52% saturation.	
<b>ISRM</b> (swelling tests for rock)	
Part-2	405
Part-4*	679
⇒ *More than 10 loads add per load	49
<b>One Dimensional Swell/Collapse of Soils</b> (ASTM D4546)	
Part-A (4 point curve, loaded-wetted)	1062
Part-B (rebound-reload upon request only)	404
Part-C (wetted-loaded)	457



### EXPANSION / COLLAPSE TESTS (continued)

<u>% Collapse</u> (ASTM D5333)	206
⇒ <i>Incrementally loaded to requested surcharge pressure. Includes 4 load increments.</i>	
⇒ <i>Additional loads, per point</i>	49

### HYDRAULIC CONDUCTIVITY & PERMEABILITY TESTS

<u>Constant Head Rigid Wall</u> (ASTM D2434) 2-3" diameter samples	401
⇒ <i>(For clean sand and gravel with less than 10% fines and a K value &gt; 10<sup>-3</sup> cm/sec).</i>	

<u>Falling Head Rising Tail Water</u> (ASTM D5084) 2-3" diameter samples	401
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<u>Large Scale Falling Head Permeability</u> (ASTM D5084) Undisturbed Core Samples)	
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4" Diameter	832
6" Diameter	1120
Remolded Samples:	
4" Diameter	1065
6" Diameter	1789

<u>Large Scale Constant Head Permeability</u> (ASTM D2434) includes remolding	
6" Diameter Cell	528
Bio-retention	528
SFPUC Method for Bio-retention	792
12" Diameter Cell (can test up to 2" rock)	1056
(There is no ASTM procedure for >0.75" rock)	

<u>Air Permeability</u> (ASTM D6539)	
Effective (In-Situ Moisture)	528
Intrinsic (air-dried)	580
Either Test Includes:	
Moisture Content	
Volumetric Air & Water Content	
Bulk Density	
Large Scale Undisturbed or Core Samples:	
4" Diameter	add 431
6" Diameter	add 719
Large Scale Remolded Samples:	
4" Diameter	add 664
6" Diameter	add 1388

### ROCK TESTS

<u>Unconfined Strength of Rock w/ Young's Modulus</u> (ASTM D7012-d)	277
Before and After test photos	add 60

<u>Point Load Strength Index of Rock Core</u> (ASTM D5731)	99
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<u>Slake Durability</u> (ASTM D4644)	244
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<u>Splitting Tensile Strength-Brazilian Splitting Test</u> (ASTM D3967), Per Point	138
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### REQUIRED LIME CONTENT

<u>Soil-Lime Proportion</u> (ASTM D6276)	352
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⇒ 6 point curve to determine optimum lime content of soil lime mixtures.

### CAL-TRANS / AGGREGATE TESTS

<u>CBR</u> (ASTM D1883)	
With compaction	1039
Compaction Provided by Client	647

<u>R-value</u> (Cal 301)	314
A) with batching of gravel	add 45
B) Admix (lime, cement etc.)	add 71

<u>Sand Equivalent</u> (CT 217)	138
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<u>Durability Index</u> (CT 229)	
A) Coarse	196
B) Fine	163

<u>Class II AB Specification Tests Suite</u>	
⇒ R-value	
⇒ Sieve Analysis	
⇒ Durability Index	
⇒ Sand Equivalent	
Cal Spec Package Price	954

<u>% Crushed Particles</u> (CT 205)	
Hourly @	172

Cal impact (see moisture-density relations)

<u>Sodium Sulfate Soundness</u> (ASTM C88) (per fraction)	196
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<u>Cleanness Value</u> (CT 227)	
1" x #4 (or finer)	244
1.5" x 3/4"	520
2.5" x 1.5"	830
Pit Run	303

<u>LA Abrasion</u>	
500 revolutions (ASTM C131/CT 211)	303
1000 revolutions (ASTM C535)	414

<u>Clay Lumps &amp; Friable Particles</u> (ASTM C142)	147
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### WATER TESTS

<u>Particle Size Distribution</u> (ASTM D3977c) full gradation curve	370
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<u>Total Suspended Solids</u> (ASTM D3977b)	59
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<u>Total Dissolved Solids</u> (SM2540C)	59
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<u>Total Solids</u> (SM2540B)	59
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### LIME / CEMENT TREATING

<u>R-value</u>	add 71
<u>Atterberg Limits</u>	add 48
<u>Compaction Tests</u>	add 105
<u>CBR with compaction</u>	add 343

### OTHER TESTS

<u>Total Solids for Sediments</u>	41
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<u>Pinhole Test</u> (ASTM D4647)	534
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<u>Double Hydrometer</u> (ASTM D4221 & D422)	534
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<u>Logging of Shelby Tubes</u>	111
With digital photo	add 60

<u>Lead Shot Characterization or Quantification</u> (Call for quote)	
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<u>X-Ray of samples</u> (Three sample minimum)	244
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<u>Thermal Conductivity</u> (ASTM D5334)	
As Received	251
As Received & Air Dried	502
4 Point from As Received to Oven Dry	1004
6 Point from As Received to Oven Dry	1506

### LABORATORY TIME

<u>Lab Technician Per Hour:</u>	
A) Junior Tech	138
B) Senior Tech	172
C) Principal	216

<u>Sample Pickup (Bay Area)</u>	105
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⇒ No charge for jobs over \$2000  
⇒ Long distance pickups call for quote  
⇒ Price subject to change

## Corrosion Testing

CORROSION TESTS	Price	Standard	Sample Quantity (Excluding Gravel)
<u>Resistivity</u> (as received) (Gravelly Samples: Class II AB, Drain Rock etc. add \$35)	\$86	ASTM G57	500g
<u>Resistivity</u> (100% saturated) (Gravelly Samples: Class II AB, Drain Rock etc. add \$35)	86	ASTM G57	500g
<u>Resistivity</u> (minimum) (Gravelly Samples: Class II AB, Drain Rock, etc. add \$95)	184	CT 643/AASHTO T288	500g
<u>pH</u>	42	ASTM G51/CT 643/ AASHTO T289	150g
<u>Sulfate</u>	62	ASTM D4327/CT 417	150g
<u>Redox Potential / ORP</u>	60	ASTM G200	150g
<u>Chloride</u>	62	ASTM D4327/CT 422m	150g
<u>Sulfide</u>	53	Qualitative by Lead Acetate Paper	150g
Soil Corrosivity Packages (add \$50 for insufficient Sample)	Price	Package	Sample Quantity
<u>Minimum Resistivity, pH, Chloride and Sulfate</u>	\$310	Caltrans	1000g
<u>Resistivity (100 % Sat.), pH, Chloride and Sulfate</u>	223	A	1000g
<u>Resistivity (As Received), pH, Chloride and Sulfate</u>	223	B	1000g
<u>Resistivity (As Received), pH, Chloride, Sulfate and Redox</u>	276	C	1000g
<u>Resistivity (100 % Sat.), pH, Chloride, Sulfate and Redox</u>	276	D	1000g
<u>Resist. (100% Sat.), pH, Chloride, Sulfate, Sulfide and Redox</u>	323	PG&E Corrosion Pkg.	1000g

*Test results for the pH, sulfate and redox potential tests can be affected by the way the samples are collected and handled. Ideally, samples should be collected in such a way as to minimize contact between the soil and the air. For example, collect a full brass liner of soil then quickly seal it with caps and tape. Because these tests can be affected by microbial activity it is best to keep the sample in a cooler with ice until it is delivered to our lab.*

## Environmental Testing Packages (prices for samples up to 3" diameter)

Vadose Zone-Package 1	Vadose Zone-Package 2	Hydrogeology-Package 1	Hydrogeology-Package 2
<u>Air Permeability</u> (k) ASTM D6539	---	<u>Effective Porosity</u> ASTM D6836m	---
<u>Total Porosity</u> (θt) ASTM D7263	<u>Total Porosity</u> (θt) ASTM D7263	<u>Total Porosity</u> (θt) ASTM D7263	<u>Total Porosity</u> (θt) ASTM D7263
<u>Grain Density</u> ASTM D854	<u>Grain Density</u> ASTM D854	<u>Grain Density</u> ASTM D854	<u>Grain Density</u> ASTM D854
<u>Moisture Content</u> ASTM D2216	<u>Moisture Content</u> ASTM D2216	<u>Moisture Content</u> ASTM D2216	<u>Moisture Content</u> ASTM D2216
<u>Volumetric Water Content</u> (θw)	<u>Volumetric Water Content</u> (θw)	<u>Volumetric Water Content</u> (θw)	<u>Volumetric Water Content</u> (θw)
<u>Volumetric Air Content</u> (θa)	<u>Volumetric Air Content</u> (θa)	<u>Volumetric Air Content</u> (θa)	<u>Volumetric Air Content</u> (θa)
<u>Bulk Density</u> (ρs) (wet & dry) ASTM D7263b	<u>Bulk Density</u> (ρs) (wet & dry) ASTM D7263b	<u>Bulk Density</u> (ρs) (wet & dry) ASTM D7263b	<u>Bulk Density</u> (ρs) (wet & dry) ASTM D7263b
<u>TOC Percent Organics</u> ASTM D2974 <u>OR FOC</u> (Walkley-Black) (TOC is CTL default)	<u>TOC Percent Organics</u> ASTM D2974 <u>OR FOC</u> (Walkley-Black) (TOC is CTL default)	<u>Hydraulic Conductivity</u> ASTM D5084 or ASTM D2434 depending on material type	<u>Hydraulic Conductivity</u> ASTM D5084 or ASTM D2434 depending on material type
<u>Grain Size</u> ASTM D422	<u>Grain Size</u> ASTM D422	<u>Grain Size</u> ASTM D422	<u>Grain Size</u> ASTM D422
<u>Soil Classification by USCS</u> - determined by grainsize not Atterberg Limits (USDA classification by request)	<u>Soil Classification by USCS</u> - determined by grainsize not Atterberg Limits (USDA classification by request)	<u>Soil Classification by USCS</u> - determined by grainsize not Atterberg Limits (USDA classification by request)	<u>Soil Classification by USCS</u> - determined by grainsize not Atterberg Limits (USDA classification by request)
\$933	\$457	\$882	\$706





1100 Willow Pass Court, Concord, CA 94520-1006  
925 462-2771 (Fax) 925 462-2775  
www.cercoanalytical.com

## Soil Corrosivity Testing (ASTM Packages)

### ASTM Test Methods (Analysis Only)

pH, sulfate, resistivity (100% saturation) & chloride	\$210
pH, sulfate, chloride, sulfide & resistivity (100% Saturation)	260
<b>Redox, pH, sulfate, resistivity (100% saturation) &amp; chloride <sup>(1)</sup></b>	<b>250</b>
Redox, pH, sulfate, resistivity (100% saturation), chloride & sulfide	300
Redox, pH, sulfate, resistivity (as received & 100% Saturation), & chloride	320
Redox, pH, sulfate, resistivity (as received & 100% Saturation), chloride & sulfide	360

### ASTM Test Methods (with Brief Evaluation)

pH, sulfate, resistivity (100% saturation) & chloride	\$260
pH, sulfate, chloride, sulfide & resistivity (100% saturation)	310
<b>Redox, pH, sulfate, resistivity (100% saturation) &amp; chloride <sup>(1)</sup></b>	<b>300</b>
Redox, pH, sulfate, resistivity (100% saturation), chloride & sulfide	350
Redox, pH, sulfate, resistivity (as received & 100% Saturation), & chloride	370
Redox, pH, sulfate, resistivity (as received & 100% Saturation), chloride & sulfide	410

<sup>(1)</sup>This package will be the standard package used, unless noted  
otherwise on your chain of custody or transmittal

**Standard Package includes ASTM Method Nos. D1498 (Redox),  
D4972 (pH), D4327 (Sulfate), Resistivity (G57) and (D4327) Chloride.  
ASTM D4658M (Sulfide) is used in other packages.**

**Note: There is a \$35.00 charge per sample for  
Regulated Foreign Soil Safeguards**

*For more information regarding soil corrosivity and/or cathodic protection, please  
contact JDH Corrosion Consultants, Inc. at (925) 927-6630*

**Prices effective as of 01/01/2024**



1100 Willow Pass Court, Concord, CA 94520-1006  
925 462-2771 (Fax) 925 462-2775  
www.cercoanalytical.com

## Soil Corrosivity Testing <sup>(1)</sup> (Caltrans Packages)

### Caltrans Methods (Analysis Only)

pH, sulfate, minimum resistivity & chloride	\$290
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### Caltrans Test Methods (with Brief Evaluation)

pH, sulfate, minimum resistivity & chloride	\$340
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Chemical Analysis with Detailed Corrosion Evaluation	quote <sup>(2)</sup>
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<sup>(1)</sup> Includes Method Nos. CT 643<sup>(a)</sup>, CT 417<sup>(b)</sup>, CT 422<sup>(b)</sup> & EPA 300.0

<sup>(2)</sup> For a detailed corrosion evaluation quote, please call  
JDH Corrosion Consultants, Inc. at (925) 927-6630.

<sup>(a)</sup> Rev. April 2020    <sup>(b)</sup> Rev. April 2020

**LABORATORY MINIMUM IS \$100.00**

**Prices effective as of 01/01/2024**



460 Center St #6873 Moraga, Ca 94570 T: 510 235 4144

## PRICE LIST: (2024)

### UTILITY LOCATING (ONE MAN CREW)

First hour on site	\$390
Every additional hour	\$195
Minimum 4 hours per site visit	

### PREVAILING WAGE

First hour on site	\$490
Every additional hour	\$245
Minimum 4 hours per site visit	

### TWO MAN CREW DATA COLLECTION

Electronic data collection:	
First hour on site	\$520
Every additional hour	\$260

<b>AutoCAD</b> drafting: Office work per hour rate	\$200
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<b>Travel Per Hour (Out of Bay Area Sites)</b>	\$185
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County shall process Contractor invoice upon receipt of an approved invoice in the County's Accounting Department. A written itemized monthly invoice identifying the Agreement number, location of work, specific work completed, and breakdown of charges must be provided along with any documentation verifying the work billed or hours billed are required along with the invoice.

**Effective November 2022, when submitting invoices, Contractor is required to submit supporting documents along with approved invoices.** Adequate supporting documents include, among others: deliverable documents, payroll registers, timesheets, detailed invoices, inspection certificates, activity/participant logs, applicant forms, acceptance letters, survey forms, authorized travel/expense forms, service acknowledgment forms, etc. The types of documents required to support/verify information on invoices depends on the specified contracted services and, if applicable, costs to be reimbursed.

Any additional work requested outside of the contract or authorized rates and scope of work can only be billed with proper written County approval, contractor's proposal on the additional requested work, and all necessary backup documentation.

The approved total not-to-exceed amount shall be Six Hundred Thousand Dollars and No Cents (\$600,000.00) over the term of this agreement.

Invoices are to be submitted to:

[pdu\\_invoices@smcgov.org](mailto:pdu_invoices@smcgov.org)

or

Project Development Unit  
500 County Center, 5th Floor  
Redwood City, CA 94063

Invoices not properly submitted according to this contract may result in delay payment to contractor.

#### **Fingerprinting – If Applicable**

Potential staff are required to pass a Live Scan (DOJ and FBI) background check at the contractor's expense prior to working in County facilities. Potential staff shall follow the directions provided by the Project Development Unit to complete this process and will not begin work in a County facility until they have been officially notified in writing by the Project Development Unit that they have received background clearance.

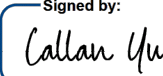
#### **Background Clearance – If Applicable**

Contractors will be required to provide a list of names of each proposed employee to the Project Development Unit 30 days prior to the assignment of any employee. The cost of the Department of Justice clearance is the responsibility of the Contractor. Contract employees will not be permitted to begin work prior to DOJ clearance and received County issued card key badge. Failure to do so will result in the immediate removal of contractor's employee. Contractor is responsible for maintaining proper security clearance for each employee throughout the duration of this agreement and will notify the County within 24 hours of learning of any arrest or detainment of an employee.

SIGNATURE PAGE TO FOLLOW

In witness of and in agreement with this Agreement's terms, the parties, by their duly authorized representatives, affix their respective signatures:

For Contractor: Shannon and Wilson, Inc.

<small>Signed by:</small>  _____ Contractor Signature	<small>Mar-26-2025   14:00 PDT</small> _____ Date	<small>Callan Yu</small> _____ Contractor Name (please print)
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COUNTY OF SAN MATEO

By:  Resolution No. 081083(c)  
President, Board of Supervisors, San Mateo County

Date: April 22, 2025

ATTEST:

By:   
Clerk of Said Board



# COUNTY OF SAN MATEO



Jas Sandhar  
Procurement Manager

Procurement Division  
455 County Center, 4th Floor  
Redwood City, CA 94063  
650-363-4408 T  
jsandhar@smcgov.org  
<https://hr.smcgov.org/procurement>

May 4, 2022

Dear Contractor, Vendor, or Supplier:

I am the Procurement Manager for the County of San Mateo, California ("County"), and I write because you have been identified as the contact person for a person or entity that has an agreement with the County of San Mateo (the "County") to provide goods or services.

All County contracts include terms that require contractors to comply with applicable laws while performing under the agreements. As you may know, the United States and State of California have taken action against Russia in response to its aggression in Ukraine, including by imposing economic sanctions. The County is working to ensure compliance with these sanctions and related orders.

Detailed information about the sanctions, including relevant Executive Orders issued by the President of the United States and the Governor of California, may be found at the following websites maintained by the United States and the State of California:

- <https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions>
- <https://www.dgs.ca.gov/OLS/Ukraine-Russia>

The County is hereby directing its contractors, vendors, and suppliers, including you, to notify the County if the provision of goods and/or services under any agreement with the County, or payment under any such agreement, is prohibited by these sanctions. If you have reason to believe that the sanctions against Russia prohibit performance or payment under your agreement with the County, please send an email to [procurement@smcgov.org](mailto:procurement@smcgov.org) with the subject line "Sanctions Against Russia." Please include the relevant contract/agreement number, if you know it, or a copy of the agreement, with your email. Please also include a short explanation of why you have reason to believe that the sanctions against Russia prohibit performance or payment under the agreement.

We greatly appreciate your partnership with the County and your attention to this important matter. Please also keep in mind that failure to comply with applicable law, including the above-referenced sanctions, could result in contract termination.

If you have any questions regarding this correspondence, please do not hesitate to contact the County's Procurement Department at [procurement@smcgov.org](mailto:procurement@smcgov.org), or call me at (650) 363-4408.

Sincerely,

A handwritten signature in black ink, appearing to read "Jas Sandhar", is written over a horizontal line.

Jas Sandhar, Procurement Manager