



**PROFESSIONAL SERVICES AGREEMENT**

13658.01

**PARTIES:**

This AGREEMENT is made this 11<sup>th</sup> day of August 2023 between Nash Mill Road Association subsequently referred to as "CLIENT", and Brunsing Associates, Inc., subsequently referred to as "BAI".

CLIENT: Nash Mill Road Association  
C/O Bruce Wicinas – Board President  
Mailing Address: 2311 Prince Street  
Berkeley, CA, 94705  
Email: [bwicinas@pacbell.net](mailto:bwicinas@pacbell.net)

CLIENT’S relationship to Project is: Owners Association.

**PROJECT:**

By joining in this AGREEMENT, CLIENT retains BAI to provide Engineering Geological, Geotechnical Engineering, and/or Material Testing services for the evaluation of the area of instability located along Nash Mill Road near the coordinates of 39 7.642’ -123 29.538’ Philo, California. Based on information provided by you and our review of the site, we understand that the area of concern consists of an approximately 200 linear foot section of roadway which has been experiencing ongoing downslope movement which has led to ongoing cracking and settlement of the roadway. We understand that this movement has been observed since the roadway’s construction. Our review of available geologic mapping indicates a landslide in the general area of instability.

We propose to provide a Phase I Preliminary Geotechnical Evaluation of the project area, which will include a subsurface characterization of the subsurface soils and bedrock and will include the installation of slope inclinometers to better define the area of instability.

Following our evaluation of the site and subsurface conditions, we will provide the CLIENT with a Preliminary Feasibility Report which will describe the area of instability and provide general mitigation options as well as an opinion on the most suitable mitigation options. We anticipate this report will be suitable to support the pursuit of grant monies which may be available in the project area.

Phase II will consist of Geotechnical Recommendation and Reporting to support the final design of the chosen mitigation measures. Final mitigation design will be determined by the results of our Phase 1 analysis, and the economic and construction feasibility of the individual mitigation options.

CLIENT\_\_\_\_\_ BAI\_\_\_\_\_

**SCOPE OF SERVICES:**

By this AGREEMENT, the scope of BAI services is limited to the following:

Phase I – Geotechnical Investigation

1. Perform a geological reconnaissance of the site and mark boring locations and obtain utility clearances from Underground Service Alert
2. Drill, log and sample two test borings, approximately 30 feet in depth, or to refusal in hard rock using track or portable drilling equipment. Test boring will be drilled by BAI's subcontractor at BAI's direction.
3. Install inclinometer casing within one of the test borings.
4. Perform an initial, base line reading of inclinometer, and a second reading.
5. Perform laboratory testing on selected soil and bedrock samples obtained during our exploration to assess the moisture content, dry density, classification and strength of subsurface soils.
6. Summarize the results of our investigation in a preliminary feasibility report.

Phase II – Geotechnical Recommendations and Report

1. Evaluate field and laboratory data and perform engineering and geologic analyses to develop conclusions and recommendations regarding the following:
  - a. Site preparation and grading, including excavation characteristics, and the presence of expansive and/or porous soils, as appropriate.
  - b. Seismic ground motion values per California Building Code as appropriate.
  - c. Prepare a site geologic map and cross section based on a Client-provided topographic base map.
  - d. Slope stability analysis.
  - e. Slope stabilization and mitigation design.
  - f. Site drainage.
  - g. Anticipated geotechnical construction problems.
  - h. The need for additional geotechnical services.
2. Summarize the results of our investigation in a written report that includes a site map of boring location and profile showing log of boring, and subsurface lithology.

**FEE:**

Services will be provided on a time and materials basis in accordance with the attached Schedule of Professional Fees and Schedule of Charges, which by this reference is made part of this agreement. BAI estimates that the fees for the services described in Phase I will be approximately \$8,000. BAI will prepare an estimate for Phase II services once the depth of instability and the most appropriate mitigation measure has been determined.

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



**TERMS OF PAYMENT:**

CLIENT agrees to pay an initial retainer of \$2000.00 prior to the start of BAI's services. This amount will be credited on the monthly invoice. Invoices will be submitted to CLIENT by BAI, and will be due and payable upon presentation. If CLIENT objects to all or any portion of any invoice, CLIENT will so notify BAI in writing within fourteen (14) calendar days of the invoice date, identify the cause of disagreement, and pay when due that portion of the invoice not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid.

For observation and testing services during construction, variability from the above cost estimate could result from our dependency on the contractor's methods and rate of progress, actual soil conditions encountered in the field, and weather conditions. This estimate does not include any additional charges, which might be incurred for retesting or reobserving of the repair of unsatisfactory work performed by the contractor, an eventuality beyond BAI's control. Any such additional costs will be billed to CLIENT and, if requested by CLIENT, will be noted on BAI's invoices.

Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. CLIENT will pay an additional charge of one and one half (1.5) percent per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, accepting any portion of the invoiced amount in dispute and resolved in favor of CLIENT. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by the CLIENT to BAI per BAI's current fee schedules. In the event CLIENT fails to pay BAI within sixty (60) days after invoices are rendered, CLIENT agrees that BAI will have the right to consider the failure to pay BAI's invoices as a breach of this AGREEMENT.

**ENTIRE AGREEMENT:**

The AGREEMENT between the parties consists of these GENERAL CONDITIONS, and any exhibits or attachments. Together these elements will constitute the entire AGREEMENT, superseding any and all prior negotiations, correspondence, or agreements either written or oral. Any changes to this AGREEMENT must be mutually agreed to in writing. This AGREEMENT shall be binding upon the heirs, executors, administrators, successors, and assignees of CLIENT and BAI.

**ADDITIONAL SERVICES:**

If additional services are necessary for this Project, BAI will provide CLIENT with a written description of the additional services, along with the additional fee for those services. If CLIENT and BAI cannot agree on the additional scope and fee, BAI's services will be terminated, as described in a subsequent paragraph.

**ENVIRONMENTAL ENGINEERING:**

The scope of services and related fees outline above do not include environmental engineering. Environmental contamination (hydrocarbons, metals, hazardous chemicals, etc.) may be present but not

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



noticeable in the field or observed in soil or rock samples. At Client's request, a supplemental scope of services and fee estimate to provide environmental engineering services can be prepared by BAI.

**CORROSIVE SOILS:**

The scope of services and related fees outlined above do not include testing for corrosive soil/rock. BAI can provide these services, if desired, for this project. The presence of corrosive soils may not be noticeable in the field. A basic suite of tests (resistivity, pH, Chloride, Sulfate and Redox) can, if desired by client, be performed at an additional cost of \$450.00 per sample. If corrosion testing is desired, Client can authorize these services by initialing the appropriate clause on the signature page of this Agreement.

**RULES-OF- ENTRY:**

CLIENT will furnish right-of-entry for BAI to make borings, surveys and/or explorations, as appropriate. CLIENT understands that subsurface exploration work involves a certain amount of ground disturbance. BAI will attempt to minimize damage to landscaping, pavements, etc., but, regardless, some damage will occur. The cost of repairing such damage is not included in the fee unless otherwise stated. BAI will backfill test borings and/or test pits, but will not be responsible for restoring damage from necessary access (tire ruts, broken branches, disturbed fences, etc.), and excavation spoils (left-over loose dirt, mud stains, etc.). Furthermore, test borings and/or test pits will be loosely backfilled with previously excavated soils or other backfill materials, if required. CLIENT agrees to monitor former test hole sites and make any additional backfills, as necessary. BAI will operate with reasonable care to minimize damage to property.

**UTILITIES:**

The CLIENT is responsible for the accuracy of locations for all subterranean structures and utilities. BAI will take reasonable precautions to avoid known subterranean structures, and the CLIENT waives any claim against BAI, and agrees to defend, indemnify, and hold BAI harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, CLIENT agrees to compensate BAI for any time spent or expenses incurred by BAI in defense of any such claim with compensation to be based upon BAI's prevailing fee schedule and expense reimbursement policy.

**WORKER'S COMPENSATION AND GENERAL LIABILITY INSURANCE:**

BAI is covered by Worker's Compensation Insurance, as required by California State Law, and General Liability Insurance for bodily injury and property damage arising directly from its negligent acts or omissions. Certificates of insurance will be provided to CLIENT upon request in writing.

**RISK ALLOCATION:**

There are a variety of risks, which potentially affect BAI by virtue of entering into an agreement to perform professional engineering services on the CLIENT's behalf. One of these risks stems from BAI's potential for human error. CLIENT further agrees to defend, indemnify and hold BAI harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



liability arising solely and directly from the negligence of BAI. In order for the CLIENT to obtain the benefit of a fee, which includes a lesser allowance for dealing with BAI's risks, the CLIENT agrees to limit BAI's liability to the CLIENT and to all other parties for claims arising out of BAI's performance of the services described in this AGREEMENT. The total aggregate liability of BAI will not exceed \$50,000.00 for professional acts, errors or omissions, and the CLIENT agrees to indemnify BAI for all liabilities in excess of the monetary limits established above.

Limitations on liability and indemnities in this AGREEMENT are business understandings between the parties and shall apply to all the different theories of recovery, including breach of contract or warranty, tort including negligence, strict or statutory liability, or any other cause of action, except for willful misconduct or gross negligence. "Parties" means the CLIENT and BAI and their officers, employees, agents, affiliates and subcontractors. The parties also agree that the CLIENT will not seek damages in excess of the limitations indirectly through suits with other parties who may join BAI as a third-party defendant.

**GENERAL LIABILITY LIMITATION:**

BAI shall not be responsible for any loss, damage or liability arising from any act or omission by CLIENT, its agents, staff, other consultants, independent contractors, third parties or others working on the project over whom BAI has no supervision or control. Both CLIENT and BAI agree that they will not be liable to each other, under any circumstances, for special, consequential, or punitive damages arising out of or related to this AGREEMENT.

**STANDARD OF CARE AND WARRANTY:**

Services performed by BAI under this AGREEMENT will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same geographical area. No warranty, expressed or implied, is made. BAI's interpretations and recommendations will be based on the results of test borings, surveys or other investigative services. The CLIENT recognizes that subsurface conditions elsewhere in the project area may differ from those at the exploration locations, and that conditions may change over time. BAI will not be responsible for the interpretation or use by others of data obtained by BAI.

**JOB SITE:**

CLIENT agrees that in accordance with generally accepted construction practices, CLIENT (or construction contractor) will be required to assume sole and complete responsibility for job site conditions during the course of the project, including safety to persons and property. This requirement shall be made to apply continuously and not be limited to normal working hours. BAI will provide appropriate health and safety protection for work carried out by BAI personnel.

**CONSTRUCTION MONITORING:**

BAI will report observations and professional opinions to the CLIENT when BAI is retained by the CLIENT to provide a site representative for the purpose of monitoring specific portions of the construction work. No action of BAI or BAI's site representative can be construed as altering any

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



agreement between the CLIENT and others. BAI will report to the CLIENT any observed work, which, in our professional opinion, does not conform with plans and specifications. BAI has no right to reject or stop work of any agent of the CLIENT. Such rights are reserved solely for the CLIENT. Furthermore, presence on site does not in any way guarantee the completion or quality of the performance of the work of any party retained by the CLIENT to provide construction-related services. BAI will not be responsible for and will not have control or charge of specific means, methods, techniques, sequences or procedures of construction selected by any agent or agreement of the CLIENT, or safety precautions and programs incident thereto.

CLIENT recognizes that it is impossible to include all construction details in plans and specifications, and that design recommendations as used for a basis of construction contracting are particularly sensitive to a need for adjustment in the field, depending upon findings during construction that previously could only be assumed based on limited sampling and related procedures. Since the intent of BAI's design, specifications and design recommendations is best understood by BAI, BAI cannot take responsibility for the adequacy of BAI's design, specifications, or design recommendations unless BAI's services include the construction monitoring necessary to verify soil conditions and determine whether or not the work performed is in substantial compliance with design, specifications, design (or modified) recommendations and their intent. CLIENT agrees that BAI has no responsibility for Construction Contractor's work that is performed without BAI being present to observe/test due to lack of notification.

CLIENT recognizes that unanticipated or changed conditions may be encountered during construction. CLIENT agrees to retain BAI to monitor construction when appropriate, and BAI agrees to assign to the monitoring function persons qualified to observe and report on the quality of work performed by contractors, et al. CLIENT recognizes that construction monitoring is a technique employed to minimize the risk of problems arising during construction. Provision of construction monitoring by BAI is not insurance, nor does it constitute a warranty or guarantee of any type. In all cases, contractor's et al., shall retain responsibility for the quality of their work and for adhering to plans and specifications. Should CLIENT for any reason not retain BAI to monitor construction, or should BAI for any reason not perform construction monitoring during the full period of construction, CLIENT waives any claim against BAI, and agrees to indemnify, defend and hold BAI harmless for injury or loss arising from problems during or after construction that allegedly result from findings, conclusions, recommendations, plans or specifications developed by BAI. CLIENT also agrees to compensate BAI for any time spent and expenses incurred by BAI in defense of any such claim, with such compensation to be based upon BAI's prevailing fee schedule and expense reimbursement policy.

**SUBSURFACE:**

Subsurface exploration and sampling may result in unavoidable contamination of certain subsurface areas, as when a probe or boring device moves through a contaminated area, linking it to an aquifer, underground stream, or other hydrous body not previously contaminated and capable of spreading hazardous materials off-site. Because nothing can be done to eliminate the risk of such an occurrence, and because subsurface sampling may be a necessary aspect of the services which BAI may perform on CLIENT's behalf, CLIENT waives any claim against BAI, and agrees to defend, indemnify and hold BAI harmless from any claim or liability for injury or loss which may arise as a result of alleged cross-contamination caused by sampling.

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



**LITIGATION SUPPORT:**

CLIENT expressly understands, agrees to and acknowledges that BAI's right to compensation in accordance with the attached Schedule of Professional Fees for services rendered should litigation ensue. Compensation shall not depend in any way whatsoever upon BAI's findings, opinions, testimony, or the outcome of CLIENT's said legal action. Further, BAI has the right to refuse testimony if CLIENT has past-due, unpaid invoices.

**DISCOVERY OF UNANTICIPATED HAZARDOUS WASTE:**

CLIENT warrants that a reasonable effort to inform BAI of known or suspected hazardous materials on or near the project site has been made. Certain hazardous materials may exist at a site where there is no reason to believe they could or should be present. BAI and CLIENT agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating a renegotiation of the scope of work or termination of services. BAI and CLIENT also agree that the discovery of unanticipated hazardous materials may make it necessary for BAI to take immediate measures to protect health and safety. CLIENT agrees to compensate BAI for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous waste.

BAI agrees to notify CLIENT when unanticipated hazardous materials or suspected hazardous materials are encountered. CLIENT agrees to make any disclosures required by law to the appropriate governing agencies. CLIENT also agrees to hold BAI harmless for any and all consequences of disclosures made by BAI, which are required by governing law. In the event CLIENT does not own the project site, CLIENT recognizes that it is the CLIENT's responsibility to inform the property owner of the discovery of unanticipated hazardous materials or suspected hazardous materials.

Notwithstanding any other provision of the AGREEMENT, CLIENT waives any claim against BAI, and to the maximum extent permitted by law, agrees to defend, indemnify, and save BAI harmless from any claim, liability, and/or defense costs for materials or suspected hazardous materials including any costs created by delay of the project and any cost associated with possible reduction of the property's value.

**HANDLING/DISPOSAL OF WASTES:**

BAI is not responsible for transportation, handling, storage, or disposal of any contaminated water, soil or sludge wastes that are generated during site investigation, remediation, and/or construction monitoring activities unless otherwise agreed to as part of this Agreement.

**SAMPLES:**

All samples of soil and water will be discarded sixty (60) days after report submittal. Upon CLIENT's authorization, samples will be either delivered in accordance with CLIENT's instructions or stored for an agreed charge.

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



**SCHEDULE:**

CLIENT's initial scheduling requirements, if any, should be agreed to in writing as part of this agreement. BAI is not responsible for delay caused by activities or factors beyond BAI's reasonable control, including but not limited to, delays by reason of strikes, lockouts, work slowdowns or stoppages, inclement weather, adverse ocean/bluff conditions, site inaccessibility (due to wet ground, locked gates, or blocked roads, etc.) accidents, acts of God, failure by CLIENT, Architect/Engineer, contractor, or government agencies to furnish necessary information in a timely manner. When such delays beyond BAI's reasonable control occur, CLIENT agrees BAI is not responsible for damages nor shall BAI be deemed to be in default of this AGREEMENT.

**DOCUMENTS:**

All original documents and drawings produced by BAI pursuant to this AGREEMENT, except documents which are required to be filed with public agencies and deliverables stipulated as part of this AGREEMENT, shall remain the property of BAI. CLIENT agrees to be liable and responsible for use by others of unsigned plans, drawings, or other documents not signed by BAI and waives liability against BAI for their use.

**DISPUTES:**

If a dispute arises relating to the performance of the services covered by this AGREEMENT, and legal or other costs are incurred, it is agreed that the prevailing party shall be entitled to recover all reasonable costs incurred in the defense of the claim including staff time at current billing rates, court costs, attorney's fees, and other claim-related expenses. CLIENT agrees that in the event CLIENT institutes litigation to enforce or interpret the provisions of this AGREEMENT, such litigation is to be brought and adjudicated in the appropriate court in the county in which BAI's principal place of business is located, and CLIENT waives the right to bring, try, or remove such litigation to any other county or judicial district.

**TERMINATION:**

This AGREEMENT may be terminated by either party upon seven (7) days written notice in the event of substantial failure of performance by the other party or if CLIENT suspends the work for more than three months. In the event of termination, BAI shall be paid for services performed prior to the termination notice date plus reasonable termination expenses, including the cost of completing analyses, records, and reports necessary to document job status at the time of termination.

**NOTICES:**

Communications from the CLIENT shall be directed to BAI's designated project manager or the Principal-in-Charge of the BAI office performing the work. Verbal communications shall be confirmed in writing.

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_





**GOVERNING LAW AND SURVIVAL:**

The terms of this Agreement are contractual and not a mere recital. Should any legal action be instituted by either of the parties to this Agreement to enforce the whole or any part of the terms hereof, the prevailing party shall be entitled to recover reasonable costs incurred in the defense of the claim, including staff time, court costs, attorney’s fees, and other claims-related expenses. All actions relating to this contract, whether contract or tort, and including for indemnity, must be brought within two years of any alleged breach, and venued in Sonoma County, California.

The law of the State of California will govern the validity of these terms, their interpretation and performance. If any of the provisions contained in this AGREEMENT are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired. Limitations of liability and indemnities will survive termination of this AGREEMENT for any cause.

There are no understandings or agreements except as herein expressly stated. The Parties have read the foregoing, understand completely the terms, and willingly enter into this AGREEMENT, which will become effective on the date signed by the CLIENT below.

CLIENT: _____	Consultant: _____
Name: _____	Name: <u>Keith A. Colorado</u>
Title: _____	Title: <u>Geotechnical Engineer - 2894</u>
Date: _____	Date: <u>August 11, 2023</u>

Client authorization for “basic” soil corrosion study at an additional cost of \$450.00 per sample (see Corrosive Soils).

Initial: Yes \_\_\_\_\_ No \_\_\_\_\_

Attachments: Brunsing Associates, Inc. Schedule of Professional Fees  
Geotechnical Laboratory Testing Schedule of Charges

CLIENT \_\_\_\_\_ BAI \_\_\_\_\_



**BRUNSING ASSOCIATES, INC.  
SCHEDULE OF PROFESSIONAL FEES**

**PROFESSIONAL SERVICES: {1}**  
(Engineer, Geologist, Inspector, Scientist)

**Hourly Rate**

Expert Consultant	\$280 - \$410
Principal	\$180 - \$205
Senior	\$160 - \$185
Project	\$140 - \$165
Staff	\$120 - \$145
Assistant	\$ 95 - \$125

**TECHNICAL SERVICES:**

Supervisory Technician	\$110 - \$125
Senior Technician	\$ 90 - \$115
Technician	\$ 70 - \$ 95
Assistant Technician	\$ 65 - \$ 75
Special Laboratory Testing or Sample Preparation	\$ 70 - \$125

**ADMINISTRATIVE SERVICES:**

Project Superintendent	\$175 - \$205
Project Manager	\$160 - \$185
Project Administrator	\$ 80 - \$ 100
Administrative Assistant	\$ 70 - \$ 90

**SUPPORT SERVICES:**

Computer (CAD) Drafting	\$ 85 - \$105
Data Processing	\$ 70 - \$ 90
Clerical	\$ 70 - \$ 90

Postage	At cost
Copies, per page	\$ 0.15
Oversize prints	\$3.00 or cost plus 15% admin fee

{1}Expert Consultant rates are increased by 100 percent for deposition, arbitration, or court testimony.



**BRUNSG ASSOCIATES, INC.  
SCHEDULE OF PROFESSIONAL FEES**

**VEHICLES:**

Auto Mileage	\$0.75/mile
Truck, 2 Wheel Drive	\$12.00/hour
Truck, 4 Wheel Drive (any off-surface road travel)	\$16.00/hour

**MISCELLANEOUS EXPENSES:**

Subsistence and Subcontractor/Subconsultant Charges and Materials	cost plus 15% administration fee
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**OVERTIME PREMIUM FOR TECHNICIAN SERVICES:**

	<b>Multiply Hourly Rate By</b>
Over 40 hours per work week or over 8 hours in one day	1.50
Up to 8 hours on Saturdays and Sundays	1.50
Over 12 hours in one day, over 8 hours on Sundays, and work on Holidays	2.00

Travel time, or two hours technician time, will be charged for services cancelled without sufficient notification to change scheduling.



## GEOTECHNICAL LABORATORY TESTING SCHEDULE OF CHARGES

	<u>Cost/Test</u>
<u>Moisture and Density Tests</u>	
Moisture, ASTM D2216, Cal 226 {1}	\$ 22.00
Moisture/Density (Liner Sample) ASTM D2216 and D2937	25.00
Unit Weight, ASTM C29, Cal 212	70.00
Compaction, ASTM D698 & D1557	
4-inch mold, with assumed Specific Gravity for Rock Correction	270.00
6-inch mold, with assumed Specific Gravity for Rock Correction	310.00
California Impact, Cal 216	340.00
Maximum & Minimum Index Density, ASTM D4253 and D4254	315.00
<u>Classification Tests</u>	
Sieve Analysis	
Coarse and fine aggregates, ASTM C117 and C136, Cal 202	110.00
Fine soils, with wash through #200 sieve, ASTM D422 & D1140	110.00
Wash through #200 sieve, ASTM D1140	80.00
Hydrometer Analysis	
ASTM D422 (withdrawn from ASTM)	190.00
ASTM D7928	210.00
RWQCB	110.00
Bulk Density (chunk sample), RWQCB	100.00
Specific Gravity	
(Aggregate), ASTM C127 & C128	155.00
(Fine soils), ASTM D854	90.00
Atterberg Limits (Plasticity Index) ASTM D4318	200.00
(non-plastic sample)	120.00
Organic Content ASTM D2974	90.00
<u>Permeability Tests</u>	
Permeability (constant head), ASTM D2434	
Intact sample	330.00
Remolded sample (requires additional compaction test)	380.00
Permeability (Triaxial cell), ASTM D5084	
Intact sample	330.00
Remolded sample (requires additional compaction test)	380.00

Notes:

{1} Agency abbreviations for testing standards:  
 Cal - State of California, Department of Transportation (Caltrans)  
 ASTM - American Society for Testing Materials  
 RWQCB - California Regional Water Quality Control Board

{2} Rates shown for Technical Services and Laboratory Testing include the report of routine test results including up to ¼ hour of review and preparation by Professional Staff, per report. Where complexity of results requires more than ¼ hour of review and preparation, or when engineering analysis, conclusion or recommendations are provided, additional fees will be charged at the appropriate hourly rates.



## GEOTECHNICAL LABORATORY TESTING SCHEDULE OF CHARGES

	<u>Costs/Test</u>
<u>Strength Tests</u>	
Direct Shear (saturated and consolidated), ASTM D3080	
Intact sample	215.00
Remolded sample (requires additional compaction test)	250.00
Unconfined Compression, ASTM D2166	130.00
Triaxial Compression (undrained and unconsolidated), ASTM D2850	
Intact sample	140.00
Remolded sample (requires additional compaction test)	190.00
<u>Volumetric Tests</u>	
Shrink-Swell, ADTM D3877	150.00
Expansion Index, ASTM D4829	
Untreated Samples	400.00
Treated Samples	460.00
Modified Expansion Index, 90% relative compaction at optimum moisture (compaction curve additional)	450.00
Consolidation, ASTM D2435	
Single Load	250.00
Complete Study	385.00
<u>Pavement Section Design Tests</u>	
Stabilometer Resistance Value (R-Value), Cal 301	
Untreated sample	350.00
Sample with gravels	385.00
Lime, cement-treated sample	400.00
Sand Equivalent, ASTM D2419, Cal 217	105.00
Durability, Cal 229	160.00
California Bearing Ratio (per point), ASTM D1883 (requires additional compaction test)	645.00
<u>Rock Core Tests</u>	
Unconfined Compressive Strength, ASTM D2938	140.00
Direct Tensile Strength, ASTM D2936	250.00
Split Tensile Strength, ASTM D3967	150.00
Third Point Loading (Flexural Strength), ASTM D1635 or C78	255.00



## MATERIALS LABORATORY TESTING SCHEDULE OF CHARGES

	<u>Costs/Test</u>
<u>Asphalt &amp; Concrete Aggregate Tests</u>	
Organic Impurities in Sand, ASTM C40	\$ 100.00
Cleanness Value, Cal 227	145.00
Percent Crushed Particles, Cal 205	100.00
Absorption, Cal 538	100.00
Los Angeles Rattler (500 Revs.), ASTM C131, Cal 211	320.00
Sulfate Soundness (per sieve), ASTM C88, Cal 214	105.00
<u>Asphalt Tests</u>	
Asphalt Content, Ignition Furnace, Cal 382	145.00
Gradation (on extracted sample)	140.00
Marshall Stability, ASTM D1559	300.00
Max Theoretical Specific Gravity (RICE)	250.00
<u>Concrete and Masonry Tests</u>	
Cement, grab sample, retained for 60 days	25.00
Compression, Concrete or Mortar Cylinders, ASTM C39	40.00
Compression, Grout Prisms, ASTM C942	50.00
Compression, Guniting Cylinders	45.00
Compression, Concrete Block or Brick	65.00
Untested Cylinder Processing and Curing	30.00
Unit Weigh of Concrete (in Cylinders)	40.00
Flexure, Concrete, 6x6x24, ASTM C293	120.00
Drying Shrinkage (3 samples per test, 28 day drying). ASTM C157	450.00
Compression, Masonry Prism	120.00
<u>Metals Tests</u>	
Reinforcing Steel, tensile & bend tests	110.00
Structural Steel, tensile tests	110.00
Structural Steel, bend tests	80.00
High Strength Bolts, Proof load tests (ASTM F606)	75.00
High Strength Bolts, ultimate strength tests	85.00
High Strength Bolts, hardness tests	55.00

