



Trinity Engineering Laboratories, Inc.
Work Schedules for
Professional and Technical Services

GENERAL TERMS AND CONDITIONS

The General terms and Conditions stated below will govern the provision of services and will constitute the contract terms between Trinity Engineering Laboratories (“Trinity”) and (Client).

Oral Agreements

1. Trinity will not initiate service without formal agreement. The Client may choose to authorize Trinity to initiate services. Oral agreement to initiate services will be followed by a signed written agreement within 48 hours of the initial oral agreement.

Alterations of Instruments of Service

2. Client agrees that designs, plans, specifications, reports and similar documents prepared by Trinity are the instruments of professional service and, as such, no matter who owns or uses them, may not, under any circumstances alter them, except Trinity. Trinity’s instruments of service shall be used only exactly as submitted by Trinity Engineering. The Client will hold Trinity harmless from any claim or liability for injury or loss arising from unauthorized alteration of Trinity’s instruments of service. Client will compensate Trinity for any time spent or expenses incurred by Trinity for defense of such claim. Compensation will be paid per Trinity fee schedule and reimbursement policy.

Change of Conditions

3. Client shall rely on Trinity’s professional judgment in evaluating the continued adequacy of this agreement in light of occurrences or discoveries that were not known to Trinity. Should the Client call for contract renegotiation, Trinity shall identify the changed conditions that in its consultant’s professional judgment make renegotiation necessary. Client and Trinity shall promptly and in good faith enter into renegotiation. If renegotiation cannot be reached, Trinity reserves the right to terminate this agreement without penalty.
4. Client accepts the responsibility of notifying Trinity at least one (1) business day in advance of any necessary tests and observations. Client agrees to notify Trinity by 5:00 p.m. of the preceding business day if scheduled services need to be rescheduled. In the absence of such notification, Client will be charged a reasonable fee for such rescheduling. If Client assigns responsibility to a contractor and/or subcontractor, architect, engineer, or job inspector, Client releases Trinity from liability and agrees to defend, indemnify, protect and hold harmless Trinity from any and all claims, liability, damages or expenses, arising in whole or in part from its rescheduling on the part of the responsible party.

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Certifications

5. Trinity shall perform its services in a manner consistent with the standard of care and ordinarily exercised by members of the profession practicing under similar conditions in geographic vicinity and at the time the services are performed. No warranty, representation, guarantee, express or implied, is made or intended by the Agreement. Client agrees to hold harmless for damages to subterranean structures the location of which is not provided to prior to the start of its work and correctly shown on plans provided to Trinity prior to the start of its work.

6. Trinity's construction observation services, if any, shall be limited to observation of construction operations to provide Client with an understanding of the general nature, price, and quality of the work based upon applicable standards of practice. Unless otherwise agreed in writing, or unless consistent with the standard of care, Trinity shall not be responsible for continuous or exhaustive inspection of the work. In no event shall Trinity be responsible for means and methods of construction or for the safety procedures employed by the contractor.

Certify means to state or declare a professional opinion of conditions whose true properties can be known at the time of such certification was made, despite appropriate professional evaluation. A professional's certification of conditions in no way relieves any other party from meeting requirements imposed by contracts or other means, including commonly accepted industry practices.

Compliance with Code and Standard

7. Trinity shall exercise due and reasonable care in observing those federal, state, and local codes and standards, statutes, and regulations applicable at the time Trinity renders services. Trinity shall assess the impact of any change to such code, standard, statute, or regulation and if, in Trinity's professional opinion, the impact affects Trinity's services, fees, expenses, anticipated completion date or other significant concern, a changed condition will exist and shall be reported accordingly.

Confidentiality

8. Trinity agrees to keep confidential and to not disclose to any person or entity without the consent of the Client. The technical and pricing information contained in the proposal submitted by Trinity or in this agreement is confidential and proprietary. Client shall not release such information or otherwise make it available to any third party without express written consent of Trinity.

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Construction/Field Observation

9. Client recognizes that Trinity's plans, specifications and reports will omit certain details customarily are furnished by contractors, creating a possible need for adjustment in the future to accommodate actual conditions existing at the time Trinity's instruments of professional service are implemented. Since the intent of Trinity's recommendations and/or plans and specifications is fully understood only by Trinity, Client agrees that, to the fullest extent permitted by law, Client shall not be liable in contract, tort, or statute, for the adequacy of Trinity's plans, specifications and reports unless Trinity performs on-site observation necessary to evaluate actual conditions and a contractor's compliance with Trinity's plans, specifications, or reports and their intent.

Failure to Follow Recommendations

10. Trinity shall not be responsible for acts and/or omissions of any party or third party involved in the design of the Project or the failure of Client or any other contractors or subcontractors to construct any aspect of the Project in accordance with the Project documents in accordance with recommendations contained in any correspondence or written recommendations issued by Trinity. To the fullest extent permitted by law, Client agrees to indemnify, defend and hold harmless Trinity from any and all liability costs, loss, damages and judgments arising directly or indirectly out of the conduct of Client, its employees, contractors, subcontractors, design professionals, agents, suppliers, and representatives, regardless of whether or not the active or passive fault of Trinity contributed to the claim, loss, damage or liability. Trinity shall not be responsible for special, indirect, or consequential damages.

Disposal of Samples

11. All soil, rock, water and other samples obtained from the project's site are Client's property. Unless other arrangements are mutually agreed upon in writing or unless required, Trinity will preserve samples for no longer than forty-five calendar days after Trinity's issuance of the final report of the initial instrument of professional services that relates data obtained from them. If, in Trinity's opinion any of these samples are or may be affected by a regulated contaminant, Trinity will not be responsible for disposal of samples.

Electronic Media

12. Data, words, graphical representations, and drawings that are stored on electronic media such as computer disks and magnetic tape, or which are transmitted electronically, may be subject to uncontrolled alteration. Client shall have ten calendar days after receipt of electronic media from Trinity's electronically transmitted instruments of professional service to inspect materials delivered for readability, accuracy and completeness. Trinity shall submit the original instrument of professional service, that is, a final hard copy of the instrument of professional service, with the professional's seal and signature. Subsequent to submission of the original, any additional services Client wishes Trinity to perform with respect to electronic media or electronically submitted material shall be subject to separate agreement.

Ownership of Instruments of Professional Service

13. Trinity's reports, field data, drawings, test results and other similar documents are instruments of professional service, not products. Trinity reserves the right to copyright such

documents; however, such copyright is not intended to limit the client's use of the service provided under this Agreement other than as described in paragraphs 2 and 8.

Limitations of Liability

14. Client and Trinity have discussed the risks and rewards associated with this project, Trinity's fee for services. Client and Trinity agree to allocate certain of the risks so that, to the fullest extent permitted by law, Trinity's total aggregate liability to Client is limited to \$1 million and all injuries, damages, claims, losses, expenses, or claim expenses (including attorney and expert witness fees) arising out of this agreement from any cause or causes. Such claims can include, but are not limited to, Trinity's negligence, errors, omissions, strict liability, statutory liability, breach of contract, breach of warranty, negligent misrepresentation or other acts giving rise to liability based upon contract, tort or statute.

Billing and Payment

15. Client recognizes that timely payment of Trinity's invoices is a material part of the consideration Trinity requires to perform the services indicated in this agreement.

16. Client shall pay Trinity for services rendered in US funds drawn upon US banks, in accordance with the rates and charges set forth herein. Routine invoices will be submitted to Trinity from time to time, but no more frequently than every 2 weeks, and shall be due and payable within thirty (30) calendar days of invoice date. If Client objects to any portion of an invoice, Client shall so notify Trinity within fourteen (14) calendar days of the invoice date and identify the cause of the objection, and pay when due that portion of the invoice not in dispute.

17. Client shall pay an additional charge of one-and-one-half (1.5) percent for the maximum percentage allowed by law, whichever is lower of the invoiced amount per month for any amount not received by Trinity more than thirty (30) calendar days from the date of the invoice, except for the portion in dispute and resolved in favor of the client. Payment thereafter shall first be applied to accrued interest and then to the principal unpaid amount.

18. Payment of invoices is in no case subject to unilateral discounting or set-offs by Client.

19. Application of the percentage rate indicated above as a consequence of Client's late payment does not constitute any willingness on Trinity's part to finance Client operation, and no such willingness should be inferred. If Client fails to pay undisputed invoiced amounts within (30) calendar days of the date of the invoice, as set forth hereinabove, Trinity may at any time thereafter, without waiving any other claim against Client and without thereby incurring any liability to Client, suspend this agreement, as provided for in paragraph 3.

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BASIS OF CHARGES FOR TRINITY'S SERVICES



HOURLY CHARGES

MINIMUM Show-up Time	2 Hours
Work 0 – 4 Hours	4 Hours
Work 5 – 8 Hours	8 Hours

PREMIUM CHARGES ADDED TO BASIC RATE

Weekdays – 8:00 a.m. to 5:00 p.m.	Basic Rate
Shift Differential (Shifts beginning after 2:00 p.m. or before 4:00 a.m.)	Ask for Quote
Over 8 Hours on Weekday	
Saturdays	
Sundays/Holiday & Over 8 Hours on Saturday	
“Rush” Schedule - Weekdays	
“Rush” Schedule – Weekends or Holidays above rates	

EXPENSES

Auto Mileage	___/Mile
Travel Time	Basic Hourly Rate
Per Diem	Ask for Job Specific Quote
Outside Services	Cost + 15% Mark-up

All sampling, recommendations, conclusions, comments and reports will be charged at the Basic Hourly Rate.

All other charges for services and expenses will be quoted on a job specific basis.

Professional Staff Rates

Principal Engineer	\$185/hour
Project/Quality Control Manager	\$155/hour
Project Engineer	\$145/hour
Staff Engineer	\$145/hour
Expert Witness	Quote

Administrative/Technical Staff Rates

Administrative	\$70/hour
Lab/Plant Technician I	\$90/hour
Lab/Plant Technician II	\$100/hour
Senior Lab/Plant Technician	\$105/hour
Field Technician I (prevailing wage projects)	\$110/hour
Field Technician II (prevailing wage projects)	\$110/hour
Senior Field Technician Level I (prevailing wage projects)	\$120/hour
Senior Field Technician Level II (prevailing wage projects)	\$125/hour

Other Miscellaneous Items

Coring Operator (2 technicians) and Equipment	\$420/hour
Bit Charge per inch	\$4.50/inch
Sample Pick Up and Delivery (one hour minimum)	\$70/hour
Caltrans Asphalt Quality Control Plan	Quote
Project Meetings	Quote
Courier Services	Quote
Express Mail (minimum)	Quote
Evidence/Sample Storage (per month)	\$125/month
Profilograph	Quote
Mobile Laboratory	Quote
Travel	Quote
Accommodations	Quote
Inspection/Forensic	Quote

Test prices shown are for laboratory work only and include reporting of routine results. Travel time, sampling, recommendations, conclusions, comments and reports are billed at the hourly rate.

Soils
Soil/Base Characteristics



Sieve Analysis with #200 wash	ASTM C11 7, CTM 202	\$98 /each
Hydrometer Analysis with Fine Gradation	ASTM D422, CTM 203	\$210 /each
Plasticity Index	ASTM 431 8/CTM 204	\$210 /each
Liquid Limit	ASTM 4318/CTM 204	\$178 /each
Sand Equivalent	ASTM D2419/CTM 217	\$129 /each
Expansion Index	ASTM D4829	\$258 /each
Chloride Content of Soil	AASHTO T288/ CTM 643	\$161 /each
Sulfate Content of Soil	AASHTO T288/ CTM 643	\$161 /each
Resistivity and pH Soil	AASHTO T288/ CTM 643	\$161 /each
Moisture Determination and Unit Weight	ASTM D2216/ASTM D2937/ASTM D4643	\$65 /each
Moisture Determination Only	ASTM D2216/CTM 226	\$65 /each
Specific Gravity	ASTM D854/CTM 209	\$185 /each
Organic Content	ASTM D2974	\$245 /each
Correction for Oversized Material in Sample	CTM 216	\$105 /each
Strength Characteristics		
R-Value, Untreated Material or Sample	ASTM D2844/CTM 301	\$290 /each
R-Value, Treated Material or Sample	ASTM D2844/CTM 301	\$322 /each
CBR 100% compaction (includes compaction curve)	ASTM 1883	\$770/each
CBR 95% compaction (includes compaction curve)	ASTM 1883	\$1330/each
Soil Cement/Lime Treated Soil Design per Cement	PCA/ACI	\$630/each
Soil Compaction		
Standard Proctor (4" mold)	ASTM D698	\$243 /each
Standard Proctor (6" mold)	ASTM D698	\$258 /each
Modified Proctor (4" mold)	ASTM D1 557	\$243 /each
Modified Proctor (6" mold)	ASTM D1 557	\$258 /each
California Impact, Dry Method	CTM 216F	\$266 /each
California Impact, Wet Method	CTM 216G	\$282 /each
CTB/Lime Designs		
Cement Treated Base, Laboratory Design-Soil Cement (Per Set)	ASTM D559/D560/CTM 312	\$1330/each
Cement Treated Base Compression Test (includes prep)	ASTM D558/D1 633/CTM 312	\$273 /each
Field Density Test		
Sand Cone	CTM 231	Quote
Nuclear Moisture and Density	CTM 231	Tech II
Speciality Test		
Granular Grained Permeability	ASTM D2434	\$210 /each
Permeability/ Fine Soil	ASTM D2434	\$581 /each
Other - Film Stripping	CTM302	Quote
Relative Density Vibrating Table (maximum and minimum)	ASTM D4253	Quote
Consolidations (per point)	ASTM D2435	\$243 /each
Direct Shear Test	ASTM D3080	Quote

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Aggregates



Physical Properties		
Specific Gravity and Absorption of Coarse Aggregate	ASTM C127/CTM 206	\$161 /each
Specific Gravity and Absorption of Fine Aggregate	ASTM C128/CTM 207	\$161 /each
Crushed Particles, Percent	CTM 205	\$161 /each
Uncompacted Voids	ASTM D1252/AASHTO 304	\$146 /each
Flat and Elongated Particles of Sieved Sample	ASTM D4791	\$146 /each
CKE	CTM 303	Quote
Durability Index - Coarse Aggregates	CTM 229	\$178 /each
Cleaness Value	CTM 227	\$178 /each
Clay Lumps and Friable Particles	ASTM C142	\$161 /each
Unit Weight, Average of Three	ASTM C29/CTM 212	\$154 /each
Absorption Test, Coarse Aggregate	Modified CTM 303	Quote
Absorption Test, Fine Aggregate	Modified CTM 303	\$146 /each
Durability Index, Fine Aggregate	CTM 229	\$194 /each
Effect of Organic Impurities on Mortar Strength	ASTM C87	\$726 /each
Unit Weight, One Point	ASTM C29/CTM 212	\$89 /each
Durability Index - Coarse and Fine	CTM 229	\$282 /each
Chemical Properties		
Lightweight Pieces in Aggregate	ASTM C123	\$532 /each
Organic Impurities	ASTM C40	\$146 /each
Organic Mater Ignition	ASTMD2974	\$161 /each
Sodium Sulfate Soundness (Per Sieve Fraction)	ASTM C88/CTM 214	\$129 /each
Special Properties		
Petrographic Analysis	ASTM C295	Quote
Carbonate Rock Cylinders	ASTM C586	Quote
Mortar Making Properties of Fine Aggregates	CTM 515	\$887 /each
Size Characteristic		
Sieve Analysis (Gradation), Coarse Aggregate	ASTM C136, CTM 202	\$129 /each
Combined Aggregate Sieve Analysis (entire blend)	ASTM C136, CTM 202	\$185 /each
Sieve Analysis, Material Finer than #200	ASTM C11 7, CTM 202	\$82 /each
Mechanical Analysis of Extracted Aggregates	ASTMD5444	\$185 /each
Adherent Fines	FLH T512	\$73 /each
Sieve Analysis, Fine Aggregate	ASTM C136, CTM 202	\$170 /each
Specific Gravity and Absorption of Fine Aggregate (Apparent)	CTM 208	98 /each
Strength Characteristic		
Los Angeles Ratter (Abrasion) 500 revolution	ASTM C1 31, CTM 211	\$282 /each
Unconfined Compression Test	ASTM D2166	\$185 /each
Los Angeles Ratter (Abrasion) 1000 revolution	ASTM C1 31, CTM 211	\$420 /each
Effect of Organic Impurities on Mortar Strength	ASTM C87	\$726 /each
R-Value Pretreated	ASTM D2844/CTM 301	\$275 /each
R-Value Laboratory Treated	ASTM D2844/CTM 301	\$322 /each
CBR 100% compaction (includes compaction curve)	ASTM 1883	\$770/each
CBR 95% compaction (includes compaction curve)	ASTM 1883	\$1330/each

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**Hot Mix Asphalt (HMA)
Mix Designs**



Marshall Mix Designs		
Asphalt Concrete Mix Design: Marshall Method (No RAP) per Blend		
Aggregate Tests and No TSR	MS-2	\$3750 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	MS-2	\$4500 /each
Asphalt Concrete Mix Design: Marshall Method (with RAP) per Blend		
Aggregates Tests, No RAP Tests, No TSR	MS-2	\$3750 /each
Aggregates Tests, RAP Tests, No TSR	MS-2	\$5030 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	MS-2	\$5895 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	MS-2	\$4500 /each
Caltrans Mix Design/Green Book Mix Design: Dense Graded		
Dense Graded Asphalt Concrete Design: Hveem Method (No RAP) per Blend		
Aggregate Tests and No TSR	CTM 304, CTM 367	\$3750 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$4625 /each
Aggregate Tests and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$6250 /each
Dense Graded Asphalt Concrete Design: Hveem Method (with RAP) per Blend		
Aggregates Tests, No RAP Tests, No TSR	CTM 304, CTM 367	\$3750 /each
Aggregates Tests, RAP Tests, No TSR	CTM 304, CTM 367	\$6040 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$6040 /each
Aggregates Tests, RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$6900 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$5250 /each
Aggregates Tests, No RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$6040 /each
Dense Graded Two Point Verification/Check Point: Hveem Method (No RAP)		
Aggregate Tests and No TSR	CTM 304, CTM 367	\$2625 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$3500 /each
Aggregate Tests and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$4375 /each
Dense Graded Two Point Verification/Check Point: Hveem Method (RAP)		
Aggregates Tests, No RAP Tests, No TSR	CTM 304, CTM 367	\$2625 /each
Aggregates Tests, RAP Tests, No TSR	CTM 304, CTM 367	\$3500 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$4375 /each
Aggregates Tests, RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$5250 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$3315 /each
Aggregates Tests, No RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$4150 /each
Caltrans Mix Design/Green Book Mix Design: Rubberized		
Rubberized Asphalt Concrete Design: Hveem Method per Blend		
Aggregate Tests, No Rubber Design Profile and No TSR	CTM 304, CTM 367	\$3750 /each
Aggregate Tests, No Rubber Design Profile and TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$4625 /each
Aggregate Tests, No Rubber Design Profile and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$5750 /each
Rubberized Two Point Verification/Check Point: Hveem Method		
Aggregate Tests, No Rubber Design Profile and No TSR	CTM 304, CTM 367	\$2625 /each
Aggregate Tests, No Rubber Design Profile and TSR (1 TSR using single anti-strip method)	CTM 304, CTM 367	\$3500 /each
Aggregate Tests, No Rubber Design Profile and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	CTM 304, CTM 367	\$4375 /each
Open Grade Asphalt Concrete Design: Hveem Method per Blend		
Aggregate Tests and No TSR	CTM 368	\$2750 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	CTM 368	\$3625/each

Superpave Mix Designs		
Asphalt Concrete Mix Design: SuperPave (No RAP) per Blend		
Aggregate Tests and No TSR	MS-2	\$4315 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	MS-2	\$5175 /each
Asphalt Concrete Mix Design: Superpave (with RAP) per Blend		
Aggregates Tests, No RAP Tests, No TSR	MS-2	\$4315 /each
Aggregates Tests, RAP Tests, No TSR	MS-2	\$5790 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	MS-2	\$6790 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	MS-2	\$5175 /each
Caltrans Mix Design/Green Book Mix Design: Dense Graded		
Dense Graded Asphalt Concrete Design: Superpave (No RAP) per Blend		
Aggregate Tests and No TSR	AASHTO T 312	\$4315 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$5320 /each
Aggregate Tests and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$7190 /each
Dense Graded Asphalt Concrete Design: Superpave (with RAP) per Blend		
Aggregates Tests, No RAP Tests, No TSR	AASHTO T 312	\$4315 /each
Aggregates Tests, RAP Tests, No TSR	AASHTO T 312/ T 283	\$6950 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$6950 /each
Aggregates Tests, RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$7940 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$6040 /each
Aggregates Tests, No RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$6940 /each
Dense Graded Two Point Verification/Check Point: Superpave (No RAP)		
Aggregate Tests and No TSR	AASHTO T 312	\$3020 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$4025 /each
Aggregate Tests and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$4285 /each
Dense Graded Two Point Verification/Check Point: Superpave (RAP)		
Aggregates Tests, No RAP Tests, No TSR	AASHTO T 312	\$3020 /each
Aggregates Tests, RAP Tests, No TSR	AASHTO T 312	\$4025 /each
Aggregates Tests, RAP Tests, TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$5030 /each
Aggregates Tests, RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$6040 /each
Aggregates Tests, No RAP Tests, TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$3815 /each
Aggregates Tests, No RAP Tests, TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$3820 /each
Caltrans Mix Design/Green Book Mix Design: Rubberized		
Rubberized Asphalt Concrete Design: Superpave per Blend		
Aggregate Tests, No Rubber Design Profile and No TSR	AASHTO T 312	\$4315 /each
Aggregate Tests, No Rubber Design Profile and TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$5320 /each
Aggregate Tests, No Rubber Design Profile and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$6615 /each
Rubberized Two Point Verification/Check Point: Superpave		
Aggregate Tests, No Rubber Design Profile and No TSR	AASHTO T 312	\$3020 /each
Aggregate Tests, No Rubber Design Profile and TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$4025 /each
Aggregate Tests, No Rubber Design Profile and TSR (2 TSR's - Virgin Blend and 1 anti-strip method)	AASHTO T 312/ T 283	\$6290 /each
Open Grade Asphalt Concrete Design: Superpave per Blend		
Aggregate Tests and No TSR	AASHTO T 312	\$3170 /each
Aggregate Tests and TSR (1 TSR using single anti-strip method)	AASHTO T 312/ T 283	\$4170 /each

Other Individual Hot Mix Asphalt Tests



Asphalt Binder Content		
Asphalt Content - Ignition Oven	ASTM 6307/CTM 382	\$194 /each
Asphalt Content - Nuclear	ASTM D4125/CTM 379	\$194 /each
Asphalt Content - Centrifuge	ASTM D2172- Method A	\$178 /each
Asphalt Content - Reflux	ASTM D2172 - Method B	\$178 /each
Asphalt Content - Hot Oil	CTM 362	\$623 /each
Asphalt Content - Correction Factor for Ignition Oven	ASTM 6307/CTM 382	\$406 /each
Physical Properties		
Swell Test	CTM 305	\$203 /each
Surface Abrasion	CTM 360	Quote
LTMD Pre-mixed (includes unit weight) - 5 specimens	CTM 375	\$406 /each
AC Moisture - Microwave	CTM 370	\$65 /each
AC Moisture - Distillation	ASTM D1461	\$308 /each
AC Moisture - Oven	CT 226	\$65 /each
Pre-mixed Theoretical Maximum Specific Gravity (Rice)	ASTM D2041/ CTM 309	\$170 /each
Lab-mixed Theoretical Maximum Specific Gravity (Rice)	ASTM D2041/ CTM 309	\$178 /each
Physical Properties-Caltrans Method		
LTMD Lab-mixed (includes unit weight) - 5 specimens	CTM 375	\$525 /each
Physical Properties-Marshall Method		
Bulk Specific Gravity of Compacted Sample (per specimen)	ASTM D2726/ASTM D6752/CTM 308	\$56/each
Pre-mixed HMA Properties Per Single Asphalt Content (includes LTMD/Rice/Stability)	Various	\$805 /each
Lab-mixed HMA Properties Per Single Asphalt Content (includes LTMD/Rice/Stability)	Various	\$1022 /each
Marshall Stability and Flow Pre-mixed (Bulk SSD not included)	ASTM 6927	\$520 /each
Marshall Stability and Flow Lab-mixed (Bulk SSD not included)	ASTM 6927	\$462 /each
Physical Properties-Hveem Method		
Bulk Specific Gravity of Compacted Sample (per specimen)	ASTM D2726/ASTM D6752/CTM 308	\$56 /each
Pre-mixed HMA Properties Per Single Asphalt Content (includes LTMD/Rice/Stability)	Various	\$805 /each
Lab-mixed HMA Properties Per Single Asphalt Content (includes LTMD/Rice/Stability)	Various	\$1022 /each
Special Properties		
Swell Test	CTM 305	\$203 /each
Surface Abrasion	CTM 360	Quote
Moisture of Asphalt by Distillation	ASTM D6627	\$308 /each
Chemical Properties		
AC Moisture - Microwave	CTM 370	\$65 /each
AC Moisture - Distillation	ASTM D1461	\$308 /each
AC Moisture - Oven	CT 226	\$65 /each
Moisture Characteristics		
Moisture Vapor Susceptibility Test	CTM 307	\$588 /each
Pre-mixed Tensile Strength Ratio - Caltrans	CTM 371	\$970 /each
Pre-mixed Tensile Strength Ratio - AASHTO/ASTM	ASTM D4867/AASHTO T283	\$970 /each
Lab-mixed Tensile Strength Ratio - Caltran	CTM 371	\$1050 /each
Lab-mixed Tensile Strength Ratio - AASHTO/ASTM	ASTM D4867/AASHTO T283	\$1050 /each
Pre-Mixed Hamburg Test	AASHTO T 324	\$2520/each
Lab-mixedHamburg	AASHTO T 324	\$2800 /each
Strength Characteristics		
LTMD Pre-mixed (includes unit weight) - 3 specimens	ASTM 1561/CTM 304	\$443 /each
LTMD Lab-mixed (includes unit weight) - 3 specimens	ASTM 1561/CTM 304	\$565 /each
Pre-mixed Stability - 3 Specimens	ASTM 1 560/CTM 366	\$322 /each
Lab-mixed Stability - 3 Specimens	ASTM 1 560/CTM 366	\$315 /each

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Asphalt Binder



General Asphalt Binder Testing		
Haake Viscosity	LP-11	Quote
Rubber Blend Prep.	LP-11	Quote
Abson Recovery	ASTM D1 856	Quote
Forensic for Neat Oil	Various	Quote
Forensic for Aged Oil	Various	Quote
Specific Gravity	ASTM D70	Quote
Abs. Viscosity	ASTM D2171	Quote
Kin. Viscosity	ASTM D2170	Quote
Rotational Viscosity	ASTM D4402	Quote
Softening Point	ASTM D36	Quote
Penetration (Low Temp)	ASTM D5	Quote
Penetration (High Temp)	ASTM D5	Quote
RTFO	ASTM D2872	Quote
Viscosity Curve	ASTM D2171	Quote
Resilient Test	ASTM D5329	Quote
Binder Grade Verification and Testing		
AC Grading	ASTM 3381	Quote
AR Grading	ASTM 3381	Quote
Tmac Blend Verification	Greenbook	Quote
Rap Blend Verification	AASHTO M320	Quote
Rubber Blend Verification	LP-11	Quote
PC Grade Verification	AASHTO M320	Quote
Caltrans LP-9 RAP Correction	LP-9	\$1150/each
PG Grade Determination	AASHTO M320	Quote

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Portland Cement Concrete Mix Design and Trial



Batches		
ACI Mix Design review		Quote
Concrete Mix Design (Revision or Review)	PCA/ ACI/ CTM	\$210/each
Trial Batch I point includes aggregate testing	PCA/ACI/ CTM	\$770/each
Trial Batch, Includes Mix Design, Aggregate Testing & Six Compression Tests	PCA/ACI/ CTM	\$1540/each
Trial Batch, Includes Six Flexural Beams	PCA/ACI/ CTM	\$1260/each
Strength Testing		
Compression Strength Per Set (4 Cylinders)	ASTM C39/CTM 521	\$178/each
Compression Test, Gunite/Shotcrete Panels, 3 Cut Cores per Panel (Set)	ASTM C1 140	\$726/each
Compression Test, Gunite/Shotcrete Panels, 4 Cut Cores per Panel (Set)	ASTM C1 140	\$917/each
Compression Test, Cores (Includes Sample Preparation)	ASTM C42	\$129/each
Compression Test, Lightweight Concrete Fill	ASTM C495	\$129/each
Compression Test, High Strength/ Non-Shrink Grout Cubes		\$129/each
Concrete Flexural Test, 6 x 6 x 18	ASTM C78/ASTM C293/CTM 523	\$161/each
Flexural Beams (Set of 6)	ASTM C78/ASTM C293/CTM 523	\$917/each
Modulus of Elasticity, Static	ASTM C469	\$308/each
Splitting Strength test	ASTM C496	\$129/each
Wet Properties		
Air Content	ASTM C231/CTM 504	\$129/each
Slump	ASTM C143/CTM 556	\$154/each
Other Tests		
Chemical Analysis-Fly Ash	ASTM C31 1	\$952/each
Drying Shrinkage (3 Specimens - 28 Days)	ASTM C1 57	\$887/each
Petrographic Analysis	ASTM C295	Quote
Shotcrete Tests	ASTM C1 140	Quote
Core Sawing	Various	Quote
Field Testing	ASTM C567	Quote
Unit Weight, Lightweight Concrete Fill	ASTM C567	\$129/each
Unit Weight, Lightweight Structural Concrete	ASTM C567	\$129/each
Unit Weight (Normal)	ASTM C138/CTM 518	\$112/each
Alkali-Silica Reaction STD Bars	ASTM C227	Quote
Alkali-Silica Reaction Mortar Bars (Shrinkage 2x2 bars)	CTM 549	Quote
Alkali-Silica Reaction Rapid Bars	ASTM C1260	Quote
Alkali-Silica Reaction Long Term Bars	ASTM C1293	Quote
Alkali-Silica Reaction Chemical Method	ASTM C289	Quote

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