

**Attachment E - Cost/Fee Proposal Sheet(s)**

**SAN BERNARDINO COUNTY  
DEPARTMENT OF PUBLIC WORKS SPECIAL DISTRICTS**

PROPOSAL TO PROVIDE

**On-Call Professional Geotechnical and Geological Services**

RFP# SDD-062 / SPD125-SPDAD-5859


June 9, 2025

### ATTACHMENT E – COST/FEE PROPOSAL SHEET(S)

Proposer shall provide Labor and Expense Rates to be used to perform the as-needed Scope of Work items contained in Section V – Scope of Work for Fiscal Years 2024-2025, 2025-2026, 2026-2027, 2027-2028, and 2028-2029. Proposer may provide rates for each individual Fiscal Year if that is their preference, or may provide current rate schedule with annual escalation fee. Please note that only those costs directly incurred in the preparation and delivery of a work product will be reimbursable under any agreements with a Consultant.

- a. At a minimum the Time and Materials portion of the COST/FEE PROPOSAL **must** include:
  - i. Schedule of ALL hourly rates for ALL disciplines and employees that will be working on this Contract.
  - ii. Any and all anticipated direct charge rates such as: Mileage (at current IRS or governmental rate), Reproductions, Travel, etc. (Per County assignment);
  - iii. Listing of anticipated reimbursable expenses (if any);
  - iv. Specific costs for specific services (i.e., Program Manager Cost per hour);
  - v. Flat fees (if any);
  - vi. Mark-up percentage on any out-sourced, subcontracted, or other services (capped at 10%)
- b. Please note that only mileage that occurred while traveling within San Bernardino County limits will be reimbursed. Mileage will be reimbursed using the distance from the office (222 W. Hospitality Lane, 2<sup>nd</sup> Floor, San Bernardino, CA 92415) as the starting point, or the point where personnel cross the County line when traveling from the selected Proposer's closest office (whichever starting point is closer).
- c. Please note that the County/Districts will *not* reimburse the selected Proposer separately for indirect project costs. This includes overhead general and administrative costs (including, but not limited to, invoicing, contract/project review, task order preparation, etc.).
- d. Please note that the County/Districts will *not* reimburse the selected Proposer for use of "tools of the trade". "Tools of the trade" shall include computer equipment, vehicle usage (mileage is the only compensation allowed), camera, sample collection equipment, and other tools necessary for getting to a site and performing requisite activities.
- e. Instrumentation will be compensated on a rental cost only basis. County/Districts will *not* reimburse the selected Proposer for shipping or delivery costs related to rented equipment.

**Mail or submit in person Attachment E, in a separate sealed envelope labeled "Cost/Fee Proposal Sheet(s)" with the RFP Number and Title and the name of the Proposer clearly marked on the outside, to the address stated in Section 1, Paragraph B.**

Name (printed) of Authorized Representative:	Steve Schiffer	
Signature & Title of Authorized Representative:		Chief Revenue Officer
Company / Firm:	Twining, Inc.	DIR No 1000005568
		Date June 6, 2025

## Schedule Of Fees 2024-2025 for the County of San Bernardino

*Personnel Rates: Per Hour Unless Otherwise Noted*

<b>Task Code</b>	<b>Engineering And Consulting Personnel</b>	<b>Rate</b>
10026	Senior Principal Advisor/Consultant	\$ 390.00
10001	Principal Engineer/Geologist	\$ 280.00
10017	Metallurgical Engineer	\$ 390.00
70000	Registered Geotechnical Engineer	\$ 280.00
10010	Technical Advisor	\$ 260.00
10011	Material Scientist, Welding/NDT Consultant	\$ 275.00
70003	Registered Geologist/Certified Engineering Geologist	\$ 275.00
10003	Senior Engineer/Geologist	\$ 250.00
10009	Registered Civil Engineer	\$ 240.00
60003	Roofing/Waterproofing Consultant	\$ 265.00
10013	Project Engineer/Manager	\$ 235.00
30000	Quality Control Manager	\$ 235.00
10005	Senior Staff Engineer/Geologist	\$ 220.00
10007	Staff Engineer/Geologist	\$ 205.00
10015	Quality Control Administrator	\$ 205.00
10019	Metallurgical Technician	\$ 175.00
90001	CADD Operator/Draftsperson	\$ 160.00
95103	Administrative Support	\$ 105.00
70107	Field Supervisor	\$ 195.00
91030	Safety Supervisor	\$ 195.00
20000	Laboratory Manager	\$ 180.00
98000	Laboratory Technician	\$ 155.00
90005	Expert Witness Testimony	\$ 630.00
91010	Qualified SWPPP Developer	\$ 220.00
91000	Qualified SWPPP Practitioner	\$ 205.00
30001	Vibration Engineer	\$ 240.00
<b>Task Code</b>	<b>Field Inspection Personnel</b>	<b>Rate</b>
10101	Concrete/Reinforced Steel Inspector	\$ 125.00
10103	Prestressed/Post Tensioned Inspector	\$ 125.00
10105	Concrete ICC Inspector	\$ 125.00
10109	Drilled-In-Anchor Inspector	\$ 125.00
10111	Gunite/Shotcrete Inspector	\$ 125.00
10113	Masonry Inspector	\$ 125.00
10201	Structural Steel/Welding Inspector	\$ 125.00
10203	AWS Certified Welding Inspector	\$ 125.00
10207	Fireproofing Inspector	\$ 125.00
10501	Lead Inspector	\$ 142.00
10115	Firestop Special Inspector - IFC Premier	\$ 160.00
10117	Firestop Special Inspector - IQP	\$ 205.00
70109	L.A. Deputy Grading Inspector	\$ 150.00

<b>Task Code</b>	<b>Field Inspection Personnel - Continued</b>	<b>Rate</b>
75001	Asphalt Field and Plant Inspector/Technician	\$ 125.00
70103	Pile Driving Inspector	\$ 125.00
70101	Soils Technician	\$ 125.00
10107	Concrete Quality Control (ACI/Caltrans Technician)	\$ 125.00
10122	Wood Framing Inspector	\$ 125.00
60001	Roofing/Waterproofing Inspector	\$ 150.00
10500	Public Works Inspector	\$ 155.00
10515	Mechanical Inspector	\$ 185.00
10519	Electrical Inspector	\$ 185.00
10521	Plumbing Inspector	\$ 185.00
10523	Building Inspector	\$ 185.00
30002	Vibration Monitoring Technician	\$ 160.00
50003	Field Engineering Technician	\$ 125.00
<b>Task Code</b>	<b>Shop Inspection Personnel</b>	<b>Rate</b>
10301	Structural Steel Fabrication Inspector	\$ 125.00
10309	Batch Plant Quality Control Technician/Inspector	\$ 125.00
10325	Glue-Laminated Fabrication Inspector	Quotation
10328	Pre-Cast Concrete/Pipe Fabrication Inspector	\$ 139.00
<b>Task Code</b>	<b>Nondestructive Testing Personnel</b>	<b>Rate</b>
10401	NDE Ultrasonic Testing Technician	\$ 145.00
10403	NDE Magnetic Particle Testing Technician	\$ 145.00
10405	NDE Dye Penetrant Testing Technician	\$ 145.00
10305	Combination NDE Technician/Welding Inspector	\$ 145.00
10409	Radiographic Testing (Crew Of 2)	Quotation
10020	NDE Engineer	\$ 255.00
<b>Task Code</b>	<b>Equipment Usage (Daily Unless Otherwise Noted)</b>	<b>Rate</b>
95318	Skidmore	\$ 51.00
95309	Torque Wrench, Small	\$ 21.00
95312	Torque Wrench, Large	\$ 32.00
95315	Torque Multiplier	\$ 48.00
95321	Air Meter	\$ 37.00
95322	Unit Weight Bucket	\$ 28.00
95323	Field Concrete Scale	\$ 37.00
95324	2" x 2" x 2" Mold	\$ 26.00
95343	Nuclear Gauge (Per Hour)	\$ 13.00
95319	Sand Cone Density Test Equipment	\$ 60.00
95333	Pull Test Equipment	\$ 74.00
95348	Concrete/Asphalt Coring Equipment	\$ 720.00
95336	Floor Flatness (Dipstick)	\$ 63.00
95330	Schmidt Hammer	\$ 48.00
95341	Vapor Emission Test Kits	\$ 58.00
95342	Relative Humidity Probe	\$ 90.00
95339	UPV (Ultrasonic Pulse Velocity) Meter	\$ 420.00
95351	Fireproofing Adhesion/Cohesion (Per Test)	\$ 42.00



<b>Task Code</b>	<b>Equipment Usage (Daily Unless Otherwise Noted)</b>	<b>Rate</b>
95300	A Scan Ultrasonic Equipment And Consumables	\$ 100.00
95303	Magnetic Particle Equipment And Consumables	\$ 53.00
95306	Liquid Penetrant Consumables	\$ 48.00
95307	Phased Array Ultrasonic Equipment (Per Hour)	\$ 105.00
95347	Ground Penetrating Radar	\$ 399.00
95345	Impact Echo	\$ 405.00
95362	Ultrasonic Tomography	\$ 525.00
95349	Inertial Profiler (Per Hour)	Quotation
95352	Borescope	\$ 315.00
95356	Infrared Camera	\$ 105.00
95357	Project Dedicated Vehicle	\$ 189.00
95364	Roller Compacted Concrete Vibrating Hammer/Tamping Plate	\$ 84.00
95367	Half-Cell Potential Equipment Set	\$ 405.00
95368	Concrete Electrical Resistivity Meter	\$ 189.00
95369	Field Hardness (Steel)	\$ 116.00
95370	Coating Thickness Gauge	\$ 166.00
95373	Curing Box (Not Temperature Controlled, One-Time Fee/Per Box)	\$ 788.00
95371	Temperature Control Curing Box (Per Month)	\$ 525.00
95372	Temperature Matching Curing Box (Per Month)	\$ 599.00
<b>Task Code</b>	<b>Specimen Pick-Up</b>	<b>Rate</b>
20107	Technician For Specimen Pick-Up (Per Hour, 2-Hour Minimum)	\$ 95.00
20109	Technician For Specimen Pick-Up Before 5:00 a.m. Or After 5:00 p.m. Monday Thru Friday, Or All Day Saturday (Per Hour, 2-Hour Minimum Plus Mileage)	\$ 220.00
<b>Task Code</b>	<b>Jobsite Trailer, Mobile or On-site Laboratory</b>	<b>Rate</b>
95360	Portable Or Mobile Laboratory Unit	Quotation
95374	Jobsite Trailer, Conex, Or Equipment Storage Box	Quotation
<b>Task Code</b>	<b>Concrete Tests (Field Made Specimens)</b>	<b>Rate</b>
20201	6" x 12" Cylinder Compression Strength (ASTM C39)	\$ 49.00
20202	4" x 8" Cylinder Compression Strength (ASTM C39)	\$ 43.00
20203	Density Of Structural Lightweight Concrete Equilibrium Oven Dry Method (ASTM C567)	\$ 107.00
20205	Core Compression Including Trimming (ASTM C42)	\$ 97.00
20207	6" x 6" x 18" Flexural Beams Not Exceeding Referenced Size (ASTM C78, C293 or CTM 523)	\$ 134.00
20209	Splitting Tensile Strength (ASTM C496)	\$ 134.00
20211	Modulus Of Elasticity Test (ASTM C469)	\$ 348.00
80003	Rapid Chloride Permeability Test: Cylinders Or Cores (ASTM C1202)	\$ 610.00
80006	Density, Absorption, And Voids In Hardened Concrete (ASTM C642)	\$ 610.00
40005	Flexural Toughness (ASTM C1609, Formerly ASTM C1018)	\$ 963.00
40006	Double Punch Strength Of Fiber Reinforced Concrete	\$ 642.00
40009	Coefficient Of Thermal Expansion Of Concrete (CRD 39, AASHTO T336)	\$ 696.00
40012	Bulk Electrical Resistivity (One Age Of Testing, ASTM C1876)	\$ 172.00
80013	Flexural Tensile Strength Of Metallic Fiber Reinforced Concrete Beam (EN 14651)	\$ 1,070.00
<b>Task Code</b>	<b>Concrete Specimen Preparation</b>	<b>Rate</b>
20151	Sawing Of Specimens	\$ 54.00
20157	Coring Of Specimens In Lab	\$ 54.00
20159	Grinding Of Concrete Below 6000 psi Strength	\$ 97.00
20160	Grinding Of Concrete 6000 psi Strength And Above	\$ 118.00

<b>Task Code</b>	<b>Laboratory Trial Batch: Concrete, Cement And Mortar</b>	<b>Rate</b>
30216	Compression Test 4" x 8" Cylinders Made And Tested In Laboratory (ASTM C192, C35)	\$ 63.00
30217	Compression Test 6" x 12" Cylinders Made And Tested In Laboratory (ASTM C192, C35)	\$ 73.00
30219	6" x 6" x 18" Flexural Beams Made And Tested in Laboratory (ASTM C192, C78)	\$ 150.00
30223	Splitting Tensile Strength Cylinders Made And Tested In Laboratory (ASTM C192, C496)	\$ 150.00
30225	Modulus of Elasticity Test Cylinders Made And Tested In Laboratory (ASTM C192, C469)	\$ 364.00
30227	Density Of Structural Lightweight Concrete Made In Laboratory, Equilibrium or Oven Dry Method (ASTM C567)	\$ 124.00
30237	Bulk Electrical Resistivity (ASTM C1876)	\$ 188.00
30201	Laboratory Trial Batch (ASTM C192/Lab Procedure Performance)	\$ 589.00
30203	Concrete Mixture Design For Preconstruction Evaluation And Backup Data Development	\$ 343.00
30205	Drying Shrinkage Up To 28 Days, Three 3" x 3" Or 4" x 4" Bars, Five Readings Up To 28 Dry Days (ASTM C157)	\$ 557.00
30230	Additional Reading, Per Set Of Three Bars	\$ 65.00
30231	Storage Over Ninety (90) Days, Per Set Of Three Bars, Per Month	\$ 54.00
30207	Setting Time Up To 7 Hours (ASTM C403)	\$ 214.00
30209	Bleeding (ASTM C232)	\$ 193.00
30229	Concrete Restrained Expansion (ASTM C878)	\$ 749.00
30211	Mix, Make and Test Mortar or Grout Specimens for Compressive Strength: Set of 6 (ASTM C878)	\$ 642.00
20263	Non-Shrink Grout: Height Change After Final Set (ASTM C1090)	\$ 642.00
20265	Non-Shrink Grout: Height Change At Early Age (ASTM C827)	\$ 910.00
30232	Cracking Resistance, Set Of Three Rings, Laboratory Trial Batching, Test Until Cracking Or Up To 28 Days (ASTM 1581)	\$ 6,634.00
30233	Evaluation Of Pre-Packaged Masonry Mortars (ASTM C270)	\$ 1,391.00
30234	Creep (ASTM C512) (One Age Of Loading, 12 Months Duration Of Testing)	\$ 9,095.00
80198	Laboratory Development of Strength-Maturity Curve Without Establishing Datum Temperature (Up To 5 Testing Ages, ASTM C1074)	\$ 3,424.00
80199	Laboratory Development Of Strength-Maturity Curve With Establishing Datum Temperature (Up to 5 Testing Ages, ASTM C1074)	\$ 5,664.00
<b>Task Code</b>	<b>Qualification Of Cements</b>	<b>Rate</b>
80100	Chemical Analysis Of Portland Cement Per Standard Requirements (ASTM C150)	\$ 803.00
80103	Physical Testing Of Portland Cement Per Standard Requirements (ASTM C150)	\$ 803.00
80194	Physical Testing Of Type K Cement, Mortar Expansion (ASTM C806)	\$ 803.00
80195	Physical Testing And Chemical Analysis Of Portland Cement Per Standard Requirements (ASTM C150)	\$ 1,498.00
80106	Partial Analysis Or Specific Physical Tests	Quotation
80110	Sulfates Resistance Of Hydraulic Cement (ASTM C1012), 6 Months	\$ 3,210.00
80111	Sulfates Resistance Of Hydraulic Cement (ASTM C1012), 12 months	\$ 3,531.00
80149	Type 1L Cement (ASTM C595; Excludes Special Properties)	\$ 1,498.00
80151	Clinker Microscopy, Per Sample	\$ 910.00
<b>Task Code</b>	<b>Physical Testing Of Chemical Admixtures For Concrete</b>	<b>Rate</b>
80196	Qualification Of Admixture (ASTM C494)	Quotation

**ATTACHMENT E – COST/FEE PROPOSAL SHEET(S) - Twining, Inc.**

<b>Task Code</b>	<b>Evaluation Of Pozzolans And Slag Cement</b>	<b>Rate</b>
80140	Chemical Analysis Of Fly Ash Per Standard Requirements (ASTM C618)	\$ 803.00
80143	Physical Testing Of Fly Ash Per Standard Requirements (ASTM C618)	\$ 803.00
80146	Partial Analysis Or Specific Physical Tests	Quotation
80147	Chemical Analysis And Physical Testing Of Fly Ash Per Standard Requirements (ASTM C1618)	\$ 1,498.00
80250	Qualification Of Silica Fume Per Standard Requirements (ASTM C1240)	\$ 1,498.00
80252	Qualification Of Slag Cement Per Standard Requirements (ASTM C989)	\$ 1,498.00
80254	Effectiveness Of Pozzolans & Slag Cement In Mitigating Expansion Due To ASR (ASTM C441)	\$ 1,498.00

<b>Task Code</b>	<b>Mass Concrete - Engineering And Testing Services</b>	<b>Rate</b>
80256	Thermal Control Plan (Without Cooling Pipes) Per A Unique Type Of Placement Of Similar Group Of Placements, Each Plan	\$ 9,000.00
80258	Thermal Control Plan (With Cooling Pipes), Per A Unique Type Of Placement Of Similar Group Of Placements, Each Plan	\$ 10,500.00
80260	Performance Based Maximum Temperature Difference Laboratory & Analytical Studies, One Concrete Mixture Design	\$ 6,000.00

<b>Task Code</b>	<b>Rock And Concrete Aggregates - Petrographic Examination &amp; Special USACE &amp; CRD Tests</b>	<b>Rate</b>
80262	Rock Type Description, Per Sample (Rock Core Or Rock Chunk)	\$ 1,000.00
80263	Rock Type Description + XRD Including Clay Analysis, Per Sample	\$ 1,500.00
80266	Natural Aggregates - Petrographic Examination (Gravel And Natural Sand Consisting Of Single Rock Type ASTM C295) Each, One Sample	\$ 2,750.00
80268	Crushed Aggregates - Petrographic Examination (Crushed Rock & Manufactured Sand Consisting Of Single Rock Type ASTM C295), Each, One Sample	\$ 2,750.00
80270	Coarse Aggregate Certification For Deleterious Materials Per Specifications Of USACE, Materials Coarser Than 0.75-Inch Each, One Sample, 200 lb.	\$ 6,500.00
80272	Coarse Aggregate Certification For Deleterious Materials Per Specifications Of USACE, 0.75-Inch And Finer Material, Each, One Sample, 25 lb.	\$ 5,500.00
80274	Fine Aggregate Certification For Deleterious Materials Per Specifications Of USACE, Each, One Sample	\$ 2,750.00
80276	Aggregate, Scratch Hardness (CRD-C 130), Each, One Sample, 25 lb.	\$ 500.00

<b>Task Code</b>	<b>Evaluation of Mixing Water for Concrete</b>	<b>Rate</b>
80246	Evaluation of Mixing Water For Concrete Per The Requirements Of ASTM C1602, Table 1 (Physical Properties Of Mortar), Per Sample	\$ 1,070.00
80248	Evaluation Of Mixing Water For Concrete Per The Requirements Of Caltrans, Section 90, Per Sample	\$ 1,284.00

<b>Task Code</b>	<b>Concrete - Chemical Analysis, Transport Properties, Service Life Modeling, Petrographic Examination</b>	<b>Rate</b>
80123	Acid-Soluble Chloride Analysis (ASTM C1152) Includes Sample Prep)	\$ 134.00
80126	Water-Soluble Chloride Analysis (ASTM C1218) (Includes Sample Prep)	\$ 161.00
80193	Chloride Diffusion Coefficient Of Cementitious Mixtures By Bulk Diffusion (ASTM C1556)	\$ 2,996.00
80159	Bulk Resistivity (ASTM C1876) And Formation Factor	\$ 696.00
80204	Chloride Binding Isotherm	\$ 910.00
80206	Analytical And Experimental (ASTM C1556) Modeling Of Service Life Of Concrete Per Life-365 Model, Per Mixture Design	\$ 8,560.00
80208	Analytical And Experimental (NordTest) Modeling Of Service Life Of Concrete Per FIB Model Code 34, Per Mixture Design	\$ 8,560.00
80210	Non-Steady State Chloride Migration Coefficient, NordTest 492	\$ 669.00
80212	Petrographic Examination Of Hardened Concrete, Level I (ASTM C856) (Excludes Thin Section), Per Sample	\$ 1,750.00
<b>Task Code</b>	<b>Concrete - Chemical Analysis, Transport Properties, Service Life Modeling, Petrographic Examination - Continued</b>	<b>Rate</b>
80129	Petrographic Examination Of Hardened Concrete, Level II (ASTM C856) Includes Thin Section, Per Sample	\$ 2,250.00
80218	Petrographic Examination Of Hardened Concrete, Level III (ASTM C856/C1723) (Thin Section And SEM/EDX), Per Sample	\$ 3,500.00
80222	W/CM Determination (NordTest Build 361)	\$ 1,338.00
80224	Examination Of Volumetric Proportions Of Hardened Concrete (ASTM C457), Per Sample	\$ 535.00
80228	Air Void Analysis Of Hardened Concrete (ASTM C457)	\$ 750.00
80232	Electron Microscopy (ASTM C1723)	\$ 803.00
80234	Paste Carbonation Analysis, Per Sample	\$ 268.00
80238	Insoluble Residue Analysis (ASTM C1324)	Quotation
80240	Alkali-Silica - Damage Rating Index (DRI), Per Sample	\$ 1,338.00
<b>Task Code</b>	<b>Soils And Aggregate Tests</b>	<b>Rate</b>
30503	Abrasion: LA Rattler (ASTM C131)	\$ 206.00
30505	Abrasion: LA Rattler (ASTM C535)	\$ 217.00
70301	Atterberg Limits/Plasticity Index (ASTM D4318, CTM 204)	\$ 165.00
70303	California Bearing Ratio Excluding Maximum Density (ASTM D1883) Soil	\$ 598.00
70304	California Bearing Ratio Excluding Maximum Density (ASTM D1883) Cement-Treated Soil	\$ 670.00
70344	Cement-Treated Soil/Base Mix Design: Includes Three Trial Cement Contents With Three Unconfined Compressive Strength Specimens Per Cement Content	\$ 3,605.00
70305	Chloride And Sulfate Content (CTM 417, CTM 422)	\$ 180.00
30403	Clay Lumps And Friable Particles (ASTM C142)	\$ 210.00
30321	Cleanness Value 1" x #4 (CTM 227)	\$ 180.00
30322	Cleanness Value 1.5" x .75" (CTM 227)	\$ 285.00
70393	Collapse Potential/Index (ASTM D5333)	\$ 232.00
70396	Compressive Strength Of Molded Soil-Cement Cylinders (ASTM D1633)	\$ 109.00
70309	Consolidation Test Full Cycle (ASTM 2435, CTM 219)	\$ 205.00
70311	Consolidation Test Time Rate Per Load Increment (ASTM D2435, CTM 219)	\$ 47.00
70313	Corrosivity Series Sulfate, Cl, pH, Resistivity (CTM 643, 417, and 422)	\$ 253.00
70315	Crushed/Fractured Particles (ASTM D5821, CTM 205)	\$ 180.00
70317	Direct Shear Test Remolded And/Or Residual (ASTM D3080)	\$ 255.00
70319	Direct Shear Test Undisturbed - Slow [CD] (ASTM D3080)	\$ 230.00
70321	Direct Shear Test Undisturbed - Fast [CU] (ASTM D3080)	\$ 200.00
70378	Durability Index Per Method - A,B,C, or D (ASTM D3744,CTM 229)	\$ 220.00



<b>Task Code</b>	<b>Soils And Aggregate Tests - Continued</b>	<b>Rate</b>
70325	Expansion Index (ASTM D4829, UBC 18-2)	\$ 175.00
75004	Fine Aggregate Angularity (ASTM C1252, CTM 234,AASHTO T304)	\$ 200.00
30507	Flat And Elongated Particle (ASTM D4791)	\$ 250.00
30508	Flat Or Elongated Particle (ASTM D4791)	\$ 220.00
70331	Maximum Density Methods A/B/C (ASTM D1557,D698, CTM 216)	\$ 195.00
70333	Maximum Density Check Point (ASTM D1557, D698)	\$ 70.00
70335	Maximum Density AASHTO C [Modified] (AASHTO T-180)	\$ 200.00
70336	Maximum Index Density Vibratory Table (ASTM D4253)	\$ 355.00
70337	Moisture Content (ASTM D2216, CTM 226)	\$ 30.00
70339	Moisture and Density Ring Sample (ASTM D2937)	\$ 30.00
70341	Moisture and Density Shelby Tube Sample (ASTM D2937)	\$ 45.00
70340	Moisture-Density Relations Of Soil-Cement Mixtures Premixed In Field (ASTM D558)	\$ 285.00
70342	Moisture-Density Relations Of Soil-Cement Mixtures Mixed In The Lab (ASTM D558)	\$ 365.00
70328	pH Of Soils (ASTM D4972)	\$ 65.00
70330	Organic Content Of Soils (ASTM D2974, Method A Only)	\$ 90.00
30401	Organic Impurities (ASTM C40, CTM 213)	\$ 95.00
70343	Permeability (ASTM D5084)	Quotation
80001	Potential Reactivity Chemical Method (ASTM C289 - Discontinued Method)	\$ 800.00
70394	Potential Reactivity Mortar Bar Expansion Method, 14-Day Exposure (ASTM C1260)	\$ 990.00
70391	Potential Reactivity Mortar Bar Expansion Method, 28-Day Exposure (ASTM C1260)	\$ 1,100.00
70398	Potential Reactivity Concrete Bar Expansion Method (ASTM C1293), 12 month	\$ 2,995.00
70399	Potential Reactivity Concrete Bar Expansion Method (ASTM C1293), 24 month	\$ 3,320.00
70397	Potential Reactivity of Aggregate Combination, Non-Standard Method; 14-Day Exposure, Mortar (After ASTM C1567)	\$ 1,175.00
70392	Potential Reactivity Of Aggregate Combination, Non-Standard Method; 28-Day Exposure, Mortar (After ASTM C1567)	\$ 1,230.00
70345	R-Value Soil (ASTM 2844, CTM 301)	\$ 454.00
70347	R-Value Aggregate Base (ASTM D2844, CTM 301)	\$ 505.00
70349	Sand Equivalent (ASTM D2419, CTM 217)	\$ 129.00
70351	Sieve #200 Wash Only (ASTM D1140, CTM 202)	\$ 93.00
70353	Sieve With Hydrometer 3/4" Gravel To Clay (ASTM D422, D7928, CTM 203)	\$ 258.00
70355	Sieve With Hydrometer Sand To Clay (ASTM D422, D7928, CTM 203)	\$ 248.00
70357	Sieve Analysis Including Wash (ASTM C136, CTM 202)	\$ 155.00
70359	Sieve Analysis Without Wash (ASTM C136, CTM 202)	\$ 125.00
70360	Sieve Analysis Split Sieve (ASTM C136, CTM 202)	\$ 250.00
70361	Sieve Analysis Without Wash With Cobbles (ASTM C136, CTM 202)	\$ 245.00
70363	Soundness Sodium Or Magnesium Sulfate, 5 Cycles (ASTM C88)	\$ 464.00
70365	Specific Gravity And Absorption Coarse (ASTM C127, CTM 206)	\$ 105.00
70367	Specific Gravity and Absorption Fine (ASTM C128,CTM 207)	\$ 170.00
70369	Swell/Settlement Potential One Dimensional (ASTM D4546)	\$ 155.00
70371	Triaxial	Quotation
70373	Unconfined Compression (ASTM D2166, CTM 221)	\$ 196.00
30317	Unit Weight Per Cubic Foot (ASTM C29, CTM 212)	\$ 129.00
30319	Voids In Aggregate With Known Specific Gravity (ASTM C29, CTM 212)	\$ 129.00
30411	Lightweight Particles Coarse, with Two Solutions (ASTM C123)	\$ 535.00
30412	Lightweight Particles Fine, with One Solution (ASTM C123)	\$ 258.00
20807	Method of Test for Relative Mortar Strength of Portland Cement Concrete Sand (CT 515)	\$ 1,400.00

**ATTACHMENT E – COST/FEE PROPOSAL SHEET(S) - Twining, Inc.**

<b>Task Code</b>	<b>Asphalt Concrete Tests</b>	<b>Rate</b>
75031	HMA Mixing And Preparation	\$ 140.00
75032	HMA Mixing And Preparation With Aggregate Treatment	\$ 196.00
75033	Bulk Specific Gravity Of Compacted Sample Or Core SSD (ASTM D2726, CTM 308C)	\$ 62.00
75036	Bulk Specific Gravity Of Compacted Sample Or Core Paraffin Coated (ASTM D1188 and CTM 308A)	\$ 88.00
75040	Emulsion Residue, Evaporation (ASTM D244)	\$ 175.00
75024	Extraction % Bitumen (ASTM D6307, CTM 382)	\$ 175.00
75027	Extraction % Bitumen And Gradation (ASTM D5444, D6307, CTM 202, 382)	\$ 240.00
75028	Extraction % Bitumen, Correction Factor (ASTM D6307,CTM 382)	\$ 385.00
75030	Chemical Extraction % Bitumen And Sieve Analysis (ASTM D2172 Method A or B, ASTM D5444)	\$ 410.00
75042	Lab Tested Maximum Density Hveem, 3 Briquettes (ASTM D1561, D1188, CTM 304, 308)	\$ 235.00
75057	Hveem Stabilometer Test, Premixed, 3 Briquettes (ASTM D1560, D1561, CTM 304, 366)	\$ 235.00
75048	Lab Tested Maximum Density Marshall, 3 Briquettes (ASTM D6926, D2726)	\$ 230.00
75049	Lab Tested Maximum Density Marshall 6" Specimen, 3 Briquettes (ASTM D5581, D2726)	\$ 235.00
75050	Lab Tested Maximum Density Superpave Gyratory Compacted Briquette, SSD, 1 Briquette (ASTM D6925, D2726)	\$ 90.00
75052	Lab Tested Maximum Density Superpave Gyratory Compacted Briquette, Paraffin, 1 Briquette (ASTM D1188, D6925)	\$ 100.00
75051	Maximum Theoretical Specific Gravity [RICE] (ASTM D2041, CTM 309)	\$ 180.00
75066	Marshall Stability And Flow, Cored Sample, Each ASTM D6927)	\$ 90.00
75069	Marshall Stability And Flow, Premixed, 3 Briquettes (ASTM D6926, D6927)	\$ 255.00
75106	Marshall Stability And Flow, Gyratory Compacted Specimen Pre-Mixed, 3 Briquettes (ASTM D5581, D6925)	\$ 255.00
75107	Marshall Stability And Flow 6" Specimen, Premixed, 3 Briquettes (ASTM D581)	\$ 255.00
75063	Moisture Content (CTM 370)	\$ 90.00
75005	Wet Track Abrasion Test (ASTM D3910)	\$ 185.00
75093	Hveem Mix Design (Excluding Aggregate Quality Tests)	\$ 6,000.00
75096	Hveem Mix Design, With RAP (Excluding Aggregate Quality Tests, RAP Qualification)	\$ 6,500.00
75099	Hveem Mix Design, With Lime (Excluding Aggregate Quality Tests)	\$ 10,000.00
75094	Hveem Mix Design Caltrans Untreated Mix (Including Aggregate Quality Tests)	\$ 7,000.00
75095	Hveem Mix Design Caltrans Lime Treated Mix (Including Aggregate Quality Tests)	\$ 8,000.00
75084	Marshall Mix Design (Excluding Aggregate Quality Tests)	\$ 6,000.00
75087	Marshall Mix Design With RAP (Excluding Aggregate Quality Tests)	\$ 6,400.00
75090	Marshall Mix Design With Lime (Excluding Aggregate Quality Tests)	\$ 7,000.00
75083	Open Grade Asphalt Concrete Mix Design (ASTM D7064, CTM 368)	\$ 3,500.00
75109	Superpave Mix Design (Excluding Aggregate Quality Tests)	\$ 12,000.00

**ATTACHMENT E – COST/FEE PROPOSAL SHEET(S) - Twining, Inc.**

<b>Task Code</b>	<b>Asphalt Concrete Tests - Continued</b>	<b>Rate</b>
75113	Superpave Mix Design, With RAP (Excluding Aggregate Quality Tests)	\$ 12,500.00
75114	Superpave Mix Design With Rubber (Excluding Aggregate Quality Tests)	\$ 12,500.00
75115	Superpave Mix Design With Additives (Excluding Aggregate Quality Tests)	\$ 12,700.00
75075	Effect Of Moisture On Asphalt Paving Mixtures, Pre-Mixed (ASTM D4867, AASHTO T283)	\$ 1,200.00
75111	Hamburg Wheel Track Test, 20,000 Passes, 4 Briquettes (AASHTO T324)	\$ 1,300.00
75039	Raveling Test Of Cold Mixed Emulsified Asphalt (ASTM D7196)	\$ 225.00
75067	Marshall Stability, Wet Set, 3 Replicates (AASHTO T245)	\$ 390.00
75068	Marshall Stability, Dry Set, 3 Replicates (AASHTO T245)	\$ 330.00
75070	Cold Recycled Asphalt Mix Design 2 Gradings Each, 3 Emulsion Content (Caltrans LP-8)	\$ 11,600.00

<b>Task Code</b>	<b>Mortar And Stucco - Petrographic Examination</b>	<b>Rate</b>
80282	Stucco, One-Coat (ASTM C856), Includes Thin Section), Per Sample	\$ 2,250.00
80286	Stucco, Two-Coat (ASTM C856), Includes Thin Section), Per Sample	\$ 2,500.00
80290	Stucco, Three-Coat (ASTM C856), Includes Thin Section), Per Sample	\$ 3,000.00
80294	Mortar (ASTM C1324, Petrographic Examination And Chemical Analysis), Per Sample	\$ 3,250.00

<b>Task Code</b>	<b>Asphalt Concrete Tests</b>	<b>Rate</b>
75031	HMA Mixing And Preparation	\$ 140.00
75032	HMA Mixing And Preparation With Aggregate Treatment	\$ 196.00
75033	Bulk Specific Gravity Of Compacted Sample Or Core SSD (ASTM D2726, CTM 308C)	\$ 62.00
75036	Bulk Specific Gravity Of Compacted Sample Or Core Paraffin Coated (ASTM D1188 and CTM 308A)	\$ 88.00

<b>Task Code</b>	<b>Brick Masonry Tests, ASTM C67</b>	<b>Rate</b>
20301	Modulus Of Rupture Flexural	\$ 118.00
20303	Compression Strength	\$ 81.00
20305	Absorption 5 Hour or 24 Hour	\$ 86.00
20307	Absorption (Boil) 1, 2 Or 5 Hours	\$ 118.00
20309	Initial Rate Of Absorption	\$ 75.00
20311	Efflorescence	\$ 91.00
20313	Cores Compression	\$ 97.00
20315	Shear Test On Brick Cores 2 Faces	\$ 118.00

<b>Task Code</b>	<b>Concrete Block, ASTM C140</b>	<b>Rate</b>
20321	Compression	\$ 102.00
20323	Absorption/Moisture Content/Oven Dry Density	\$ 102.00
20327	Linear Shrinkage (ASTM C426)	\$ 295.00
20335	Web And Face Shell Measurements	\$ 59.00
20329	Tension Test	\$ 188.00
20331	Core Compression	\$ 97.00
20333	Shear Test Of Masonry Cores 2 Faces	\$ 118.00
20339	Efflorescence Tests	\$ 91.00

<b>Task Code</b>	<b>Masonry Prisms, ASTM C1314</b>	<b>Rate</b>
20341	Compression Test, Composite Masonry Prisms Up To 8" x 16"	\$ 220.00
20343	Compression Test, Composite Masonry Prisms > 8" x 16"	\$ 295.00
20346	Prism Cord Modulus of Elasticity	\$ 696.00
20347	Prism Cord Modulus Of Elasticity With Transverse Strain (For Double-Wythe Specimen)	\$ 760.00

**ATTACHMENT E – COST/FEE PROPOSAL SHEET(S) - Twining, Inc.**

<b>Task Code</b>	<b>Mortar And Grout</b>	<b>Rate</b>
20351	Compression 2" x 4" Mortar Cylinders (ASTM C780)	\$ 65.00
20353	Compression 3" x 3" x 6" Grout Prisms, Includes Trimming (ASTM C1019)	\$ 49.00
20355	Compression 2" Cubes (ASTM C109)	\$ 65.00
20357	Compression Cores Includes Trimming (ASTM C42)	\$ 97.00
<b>Task Code</b>	<b>Concrete Roof Fill: Gypsum, Vermiculite, Perlite, Lightweight Insulating Concrete,</b>	<b>Rate</b>
20371	Compression Test (ASTM C495 and C472)	\$ 81.00
20373	Air Dry Density (ASTM C472)	\$ 70.00
20379	Oven Dry Density (ASTM C495)	\$ 97.00
<b>Task Code</b>	<b>Reinforcing Steel, ASTM A615, A706</b>	<b>Rate</b>
20501	Tensile Test #11 Or Smaller	\$ 81.00
20503	Bend Test #11 Or Smaller	\$ 75.00
20504	Bend Test #14 Or #18	\$ 428.00
20505	Tensile Test #14	\$ 321.00
20507	Tensile Test #18	\$ 418.00
<b>Task Code</b>	<b>Reinforcing Steel - Welded or Coupled Specimens</b>	<b>Rate</b>
20521	Tensile Test Welded/Coupled #11 And Smaller	\$ 91.00
20523	Tensile Test Welded/Coupled #14	\$ 311.00
20525	Tensile Test Welded/Coupled #18	\$ 439.00
20529	Weld Macroetch	\$ 102.00
20531	Slippage Test - Caltrans (CTM 670)	\$ 236.00
20532	Tensile Test Welded Hoops #11 And Smaller	\$ 182.00
<b>Task Code</b>	<b>Metal and Steel Testing</b>	<b>Rate</b>
20601	Tensile Strength Up To 100K Pounds (Each)	\$ 91.00
20603	Tensile Strength Up To 200K Pounds (Each)	\$ 102.00
20605	Tensile Strength Up To 300K Pounds (Each)	\$ 129.00
20607	Tensile Strength Up To 400K Pounds (Each)	\$ 188.00
20609	Tensile Strength 400K To 600K Pounds (Each)	\$ 428.00
20611	Tensile Strength Stress-Strain Percent Offset	\$ 268.00
20545	Weld Macroetch	\$ 102.00
20547	Weld Fracture	\$ 54.00
20615	Bend Test	\$ 86.00
20617	Flattening Test	\$ 86.00
20619	Hardness Test (ASTM E18)	\$ 91.00
20630	Bolt Axial Tensile Test (Up To 7/8" Diameter)	\$ 75.00
20631	Bolt Wedge Tensile Test (Up To 7/8" Diameter)	\$ 91.00
20632	Bolt Axial Tensile Test (Greater Than 7/8" Up To 1" diameter)	\$ 97.00
20633	Bolt Wedge Tensile Test (Greater Than 7/8" Up To 1" Diameter)	\$ 118.00
20634	Bolt Axial Tensile Test (Greater Than 1" Diameter)	\$ 140.00
20635	Bolt Wedge Tensile Test (Greater Than 1" Diameter)	\$ 150.00
20636	Bolt Proof Load Test (Up To 7/8")	\$ 102.00
20637	Bolt Proof Load Test (Greater Than 7/8" Up To 1" Diameter)	\$ 124.00
20638	Bolt Proof Load Test (Greater Than 1")	\$ 145.00
20639	Nut Proof Load Test (Up To 7/8")	\$ 81.00
20640	Nut Proof Load Test (Greater Than 7/8" Up To 1" Diameter)	\$ 102.00
20641	Nut Proof Load Test (Greater Than 1")	\$ 113.00
<b>Task Code</b>	<b>Masonry Specimen Preparation</b>	<b>Rate</b>
20155	Cutting Of Cubes Or Prisms	\$ 81.00
<b>Task Code</b>	<b>Fireproofing Tests</b>	<b>Rate</b>
20401	Oven Dry Density (ASTM E605)	\$ 97.00

<b>Task Code</b>	<b>Gunite And Shotcrete Tests</b>	<b>Rate</b>
20361	Core Compression Including Trimming (ASTM C42)	\$ 113.00
20365	Compression Cubes (Includes Saw Cutting)	\$ 81.00
<b>Task Code</b>	<b>Chemical Testing Of Metal And Steel</b>	<b>Rate</b>
80170	Steel Chemical Analysis	Quotation
80173	Weight Of Galvanized Coating (ASTM A90)	\$ 97.00
80176	Epoxy Coating Thickness	\$ 107.00
80177	Coating Thickness	\$ 102.00
<b>Task Code</b>	<b>Machining And Preparation Of Tensile And Bend Sample: Carbon Steel</b>	<b>Rate</b>
20751	Machinist Initial Preparation From Mock-Up, Etc. (Per Hour)	\$ 156.00
20753	Sawcut To Overall Width (Per 0.5" Thickness Or Fraction Thereof)	\$ 70.00
20755	Machine To Test Configuration Milled Specimens	\$ 102.00
20757	Machine To Test Configuration Turned Specimens (Per 0.5" Thickness Or Fraction Thereof)	\$ 182.00
20759	Prepare Subsize Specimens (Per 0.5" Thickness Or Fraction Thereof)	\$ 124.00
<b>Task Code</b>	<b>Charpy Impact</b>	<b>Rate</b>
20621	Charpy Impact Ambient Temperature	\$ 113.00
20623	Charpy Impact Reduced Temperature	\$ 150.00
<b>Task Code</b>	<b>Machining Of Charpy Samples: Carbon Steel</b>	<b>Rate</b>
20780	Cutting And Milling (Per 0.5" Or Fraction Thereof)	\$ 102.00
20783	Final Machining To Sample Configuration	\$ 124.00
<b>Task Code</b>	<b>Prestressing Wires And Tendons, (ASTM A416)</b>	<b>Rate</b>
20701	Stress-Strain Analysis Wire Or Strands (Including Chart And Percent Offset)	\$ 273.00
20703	Tensile Test Only	\$ 204.00
20705	Tendons	Quotation
<b>Task Code</b>	<b>Polymer Matrix Composite Materials (Fiberwrap)</b>	<b>Rate</b>
20706	Tensile Strength – Set of 5 Specimens/Batch/Direction (ASTM D3039)	\$ 1,498.00
20707	Tensile Strength – Additional Specimens (ASTM D3039) (ASTM D3039)	\$ 289.00
20708	Heating Chamber Time – Per 24 Hr. Period	\$ 107.00
<b>Task Code</b>	<b>Calibration Services And Universal Machine Usage</b>	<b>Rate</b>
20801	Calibration/Verification Services	Quotation
20803	Universal Test Machine Usage (Per Hour)	\$ 509.00

**Specialty Testing**

- Cyclic And Fatigue Testing Programs On Special Products/Parts
- Engineering And Technical Supports/Design Of Prototypes And Special Test Set-Up
- Fastener/Coupling Full Testing Program Per New Regulations: Tension, Tension/Bend,
- Fiberglass/Composite Materials Field Testing Program (ASTM D1143 D1242,
- Field Testing Of Structures And Structural Elements
- In-Place Shear Testing
- Materials And/Or Product Evaluation Per Specifications
- Structural Dynamic Testing And Durability Analysis

## General Conditions

NOTE: Field inspection work conditions are established by contract with Operating Engineers, Local 12.

NOTE: A minimum of 24 hours notice is required for testing and inspection services.

NOTE: For projects subject to a Project Labor Agreement (PLA), if the terms and conditions of the PLA are more restrictive than those listed

NOTE: Hard copies of reports will be sent only to governing jurisdictions that mandate them. All other parties will receive reports

### Minimum Charges (Inspection and Technician Personnel Only - Other Personnel Charged on Portal to Portal Basis)

2-Hour Minimum: Inspector arrives at jobsite, no work to perform

4-Hour Minimum: 1 to 4 hours of inspection

8-Hour Minimum: Over 4 to 8 hours of inspection

### Regular Time (All Types of Inspection and also All Non-Exempt Employees)

All shifts will be billed based on the time and date of their start. Any increment past 8 hours through 12 hours worked Monday through Friday

### Time and One-Half

All shifts will be billed based on the time and date of their start.

### Double Time (All Types of Inspection and also All Non-Exempt Employees)

All shifts will be billed based on the time and date of their start. After the first 12 hours worked Monday through Saturday, all day Sunday, and

### Travel Time and Mileage

For projects outside a 50-mile radius from the nearest Twining facility, per excess mile to and from the project will be charged for inspectors

### Weekend Sample Pick-Ups

In order to be in conformance with testing standards, it may be required that weekend pick-ups be performed (e.g. concrete specimens cast on

### Reimbursable Expenses

Parking, air fare, car rental, food, lodging and project specific software/applications (e.g. PlanGrid, Procore, etc.) will be charged at cost plus

### Project Specific Documents

Costs presented assume that client will provide project specific documents (plans, specifications, submittals, RFIs, etc.) for all inspection

### Project Site Facilities

Prices quoted assume that initial curing facilities for test samples that comply with relevant test standards and project requirements are

### Subsistence

Subsistence on remote jobs will be charged per quotation.

Note that laboratory testing will be billed on an hourly basis for non-standard tests.