

**DATE:** 09/14/18  
**PROPOSAL No.:** P14976  
**CLIENT:** SAN MATEO-FOSTER CITY SCHOOL DISTRICT  
**PROJECT:** BOREL MIDDLE SCHOOL  
**LOCATION:** SAN MATEO, CA

ITEM: I ONSITE TESTING & INSPECTIONS	ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>CONCRETE (IOR TO INSPECT REBAR )</b>				
PIERS	6	4	\$78	\$1,872
RETAINING WALLS	3	8	\$78	\$1,872
FOOTINGS/GRADE BEAMS	6	4	\$78	\$1,872
CIP RAMPS/STAIRS	4	8	\$78	\$2,496
WALLS	6	8	\$78	\$3,744
SLAB ON GRADE	3	8	\$78	\$1,872
OTHER - MISC CONCRETE	6	4	\$78	\$1,872
<b>DSA SHOTCRETE</b>				
PRECON PANEL PLACEMENT	1	4	\$150	\$600
PRECON PANEL CORING (PANELS)	2	8	\$300	\$4,800
PRECON PANEL LAYOUT - STAFF ENGINEER	1	4	\$150	\$600
SHOTCRETE REINFORCING & PRODUCTION PLACEMENT	4	8	\$150	\$4,800
<b>STRUCTURAL STEEL</b>				
ERECTION/MEMBER VERIFICATION/BOLTING	2	4	\$78	\$624
MISC STEEL/STAIRS - PERIODIC INSPECTION	4	8	\$78	\$2,496
<b>MISC FIELD TESTING SERVICES</b>				
EPOXY REBAR/BOLTS - INSTALL OBSERVATION	5	4	\$78	\$1,560
EPOXY REBAR/BOLTS - PROOF LOADING/PULL TESTING (PORTAL TO PORTAL)	5	4	\$78	\$1,560
EXPANSION ANCHOR - INSTALL OBSERVATION	4	4	\$78	\$1,248
EXPANSION ANCHOR - TORQUE TESTING (PORTAL TO PORTAL)	4	4	\$78	\$1,248
CEILING WIRE - PROOF LOADING/PULL TESTING (PORTAL TO PORTAL)	8	8	\$78	\$624
PORTAL TO PORTAL TRAVEL TIME - EQUIPMENT TRANSPORT	9	1.5	\$78	\$1,053
PORTAL TO PORTAL MILEAGE - EQUIPMENT TRANSPORT	9	62	\$0.54	\$301
<b>Preliminary Sub-Total of Onsite Testing &amp; Inspection (approx.)</b>				<b>\$37,114</b>

ITEM: II OFFSITE TESTING & INSPECTIONS	ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
STEEL SHOP - VISUAL/UT/MT - MISCELLANEOUS STEEL & STAIRS*	8	8	\$78	\$4,992
BATCH PLANT	30	8	\$78	\$18,720
REBAR SAMPLE & TAG	8	8	\$78	\$4,992
<b>Preliminary Sub-Total of Offsite Testing &amp; Inspection (approx.)</b>				<b>\$28,704</b>

ITEM: III LABORATORY TESTING & ENGINEERING	ESTIMATED UNITS/HOURS	UNIT PRICE	ESTIMATED TOTAL
CONCRETE COMPRESSION TESTS ( SET OF 4-6x12 CYLINDERS )	178	\$18	\$3,204
REBAR TENSILE AND BEND TEST (#3 TO #8)	20	\$150	\$3,000
REBAR TENSILE AND BEND TEST (#9 TO #11)	12	\$165	\$1,980
HIGH STRENGTH BOLTS ASSEMBLY (Tensile & Hardness)	3	\$185	\$555
ANCHOR BOLT TENSION TEST (Tensile & Hardness)	3	\$295	\$885
SHOTCRETE - PRE-QUAL CORES	18	\$35	\$630
SHOTCRETE - PRODUCTION CORES	25	\$35	\$875
SAMPLE PICK-UPS	259	\$4	\$1,036
WPS REVIEW	2	\$155	\$310
MIX DESIGN REVIEW	5	\$155	\$775
NOZZLEMAN QUALIFICATION	3	\$200	\$600
DSA INTERIM REPORT	1	\$55	\$55
DSA FINAL VERIFIED REPORT	1	\$200	\$200
<b>Preliminary Subtotal of Laboratory Testing &amp; Engineering (approx.)</b>			<b>\$14,105</b>
<b>Preliminary Estimated Fees</b>			<b>\$79,923</b>
<b>Project Administration 7%</b>			<b>\$5,595</b>
<b>Total Preliminary Estimated Fees</b>			<b>\$85,518</b>

ITEM: IV ADD ALTERNATE ITEMS:	ESTIMATED DAYS	ESTIMATED HOURS	UNIT PRICE	ESTIMATED TOTAL
<b>EARTHWORK</b>				
RETAINING WALL PIER INSPECTIONS (GEOTECH STAFF ENGINEER)	6	8	\$150	\$7,200
BUILDING PAD	8	8	\$82	\$5,248
RETAINING WALL BACKFILL	12	8	\$82	\$7,872
TRENCH BACKFILL	16	8	\$82	\$10,496
SITEWORK	8	8	\$82	\$5,248
PAVEMENT SUBGRADE AND BASEROCK	8	4	\$82	\$2,624
ASPHALT CONCRETE COMPACTION	4	8	\$82	\$2,624
PORTAL TO PORTAL TRAVEL TIME - NUCLEAR GAUGE TRANSPORT	56	1.5	\$82	\$6,888
PORTAL TO PORTAL MILEAGE - NUCLEAR GAUGE TRANSPORT	56	62	\$0.54	\$1,875
<b>GEOTECHNICAL ENGINEER OF RECORD</b>				
GEOR SITE VISITS	4	8	\$195	\$6,240
GEOR TRANSFER OF RESPONSIBILITY (DSA 109)	1	4	\$195	\$780
GEOR CONSTRUCTION PHASE SERVICES (REVIEW RFI, SUBMITTALS, MEETINGS, ETC.)	12	4	\$195	\$780
<b>GEOTECHNICAL LABORATORY SERVICES</b>				
PROCTORS (ASTM D1557)		6	\$220	\$1,320
GRADATION (CT 202)		4	\$70	\$280
SAND EQUIVALENT (CT217)		1	\$145	\$145
DURABILITY INDEX (CT229)		1	\$145	\$145
RESISTANCE R VALUE (CT301)		1	\$195	\$195
THEORETICAL MAXIMUM SPECIFIC GRAVITY		1	\$250	\$250
SAMPLE PICK-UPS		14	\$4	\$56
DSA INTERIM REPORT		1	\$55	\$55
GEOTECHNICAL FINAL VERIFIED REPORT		1	\$200	\$200
<b>Preliminary Subtotal of Add-Alternates (approx.)</b>				<b>\$53,321</b>
<b>Preliminary Estimated Fees</b>				<b>\$53,321</b>
<b>Project Administration 7%</b>				<b>\$3,732</b>
<b>Total Preliminary Estimated Fees</b>				<b>\$57,053</b>

\* Misc. steel shop price based on work being done in Northern California in one shop and one shift. If work is performed at night a 12.5% differential will be charged (N/A)

A 7% project administration fee will be charged monthly per invoice.

No contingency is budgeted by CTS for uncontrollable overtime, union or prevailing wage increases and unforeseen requirements that may arise in the specifications, as well as for work over the estimated hours. Owner should budget appropriate amount for budgetary purposes.

Estimate based on plans by Murphy Barry Carry dated 6/10/18 and DSA 103 Application #01-117300 dated 8/20/18. No construction schedule was available at the time this estimate was prepared. See attached fee schedule for basis of charges.

Estimate includes portal to portal travel time for nuclear gauge transport from laboratory per requirements of the CA Radiological Health Branch. See attached fee schedule for basis of charges.

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

**2018 FEE SCHEDULE - P14976 9/14/18**  
**PERSONNEL FEES AND BASIS OF CHARGES**  
**INSPECTIONS, ENGINEERING & SPECIAL SERVICES**

	<b>Standard Rate/Hour</b>	<b>Discounted Rate/Hour</b>
<b>* FIELD INSPECTION AND LABORATORY SERVICE</b>		
Steel	<del>\$248.00</del>	\$78.00
Nondestructive - UT, MT, PT	<del>\$223.00</del>	\$78.00
Steel Visual/UT Combination	<del>\$223.00</del>	\$78.00
Concrete ACI	<del>\$248.00</del>	\$78.00
Concrete ICC	<del>\$248.00</del>	\$78.00
DSA Shotcrete and Masonry	<del>\$248.00</del>	\$150.00
Fireproofing	\$218.00	
Soil Technician w/Nuclear Gauge and/or Sand Cone ( <i>portal-to-portal</i> )	<del>\$248.00</del>	\$82.00
Asphalt Technician ( <i>portal-to-portal</i> )	\$218.00	
Shoring/Soldier Piers	\$218.00	
Roofing & Waterproofing	\$218.00	
Multi-Disciplined Inspector	\$218.00	
Inspector Requiring G1 Pay Grade	\$253.00	
Specialty Inspector or Where Formal Certification is Required	\$218.00	
Field Inspector with Special Enhancement	\$218.00	
Laboratory Technician	\$218.00	
Technician Typist	\$218.00	
<b>**PROFESSIONAL ENGINEERING SERVICES</b>		
Principal Engineer (Civil/Structural)	\$353.00	
Geotechnical Engineer	<del>\$303.00</del>	\$195.00
Consulting Engineer (Civil/Structural)	\$273.00	
Associate Engineer, Licensed	\$248.00	
Project Manager	\$218.00	
Staff Engineer	<del>\$248.00</del>	\$150.00
Field Supervision	\$193.00	
ASNT Level III	\$208.00	
Drafting	\$153.00	
Quality Control Manager	QOR	
<b>SPECIAL SERVICES</b>		
Portable and Mobile Laboratories, NDT and Soils	QOR	
* Epoxy Bolt/Expansion Anchor - Installation Observation	<del>\$248.00</del>	\$78.00
* Epoxy Bolt/Expansion Anchor Proof Load Testing ( <i>portal-to-portal</i> )	<del>\$248.00</del>	\$78.00
* Coring, 1 Person (including equipment) ( <i>portal-to-portal</i> )	\$278.00	
* Coring, 2 Persons (including equipment) ( <i>portal-to-portal</i> )	<del>\$443.00</del>	\$300.00
* Asphalt Coring ( <i>portal-to-portal</i> )	\$303.00	
Project Research	QOR	
Ultrasonic Testing for Non-Metallic Materials	QOR	
Pavement Rehabilitation Analysis Using Deflections	QOR	
Roof Moisture Survey	QOR	
Soil Drilling Equipment	QOR	
Geotechnical Site Investigations/Foundation Reports	QOR	
Pachometer, Schmidt Hammer, Windsor Probe, Skidmore - Equipment Fee \$115/Day ( <i>portal-to-portal</i> )	\$288.00	
Floor Flatness Testing FF/FL - Equipment Fee \$115/Day ( <i>portal-to-portal</i> )	\$288.00	
Measuring Moisture Vapor Emission Rate (Calcium Chloride) - \$55/Kit ( <i>portal-to-portal</i> )	\$288.00	
Relative Humidity Testing - \$75/Kit ( <i>portal-to-portal</i> )	\$288.00	
Ferrosan - Equipment Fee \$115/day ( <i>portal-to-portal</i> )	\$288.00	
GPR - Equipment Fee \$115/day ( <i>portal-to-portal</i> )	\$343.00	
Administration, Secretarial, Special Projects, Notary, Certified Payroll	\$163.00	
Concrete/Grout/Mortar Mix Design Review (less than 48 hours notice - \$500)	<del>\$345.00</del>	\$155.00
Welding Procedure Review (less than 48 hours notice - \$500)	<del>\$345.00</del>	\$155.00
Welder Qualification Test	\$233.00	
DSA Interim Reports	<del>\$478.00</del>	\$55.00
DSA Final Reports	<del>\$345.00</del>	\$200.00
Geotechnical Pad Letter (less than 48 hours notice - \$550)	\$345.00	
Final Letter (less than 48 hours notice - \$550)	\$345.00	
<b>EXPERT WITNESS TESTIMONY</b>		
Court appearance, per day	\$2,420.00	
Court appearance, per half day	\$1,210.00	

\* Field inspection and laboratory technician services will be billed in accordance with minimums shown on Basis of Charges.

\*\*Professional engineering services will be billed in two hour increments.

## BASIS OF CHARGES

### GENERAL

Fees for tests and inspection include cost of technician, normal equipment and regular reports. Engineering services will be charged at applicable rates and will require travel and mileage charges for equipment transport and storage per code (portal to portal) from the nearest CTS laboratory. Soils testing with nuclear gauge and/or sand cone equipment and inspections requiring equipment will require applicable travel and mileage charges for equipment transport and storage per code (portal-to-portal) from the nearest CTS laboratory. Fees for special projects, services overseas, or elsewhere in the United States, will be quoted on request. With prior notification to Client; charges are subject to change at any time. Construction Testing Services reserves the right to adjust the rates quoted in this contract based upon any Union or prevailing wage increases and/or changes in any industry requirements.

### MINIMUM HOURLY CHARGES – INSPECTION

Technician personnel and the following minimum charges are contractual commitment:

One-half day or less	4 Hours
Over one-half day	8 Hours
Show-up time (less than 2 hours notice = 4 hour charge)	2 Hours

### WORKING HOURS AND PREMIUM TIME

Regular workday is the first 8 hours between 6:00 am and 6:00 pm Monday through Friday. Premium time is as follows:

Overtime, Weekdays and Saturdays (first 8 hours)	1.5 x quoted hourly rate
Overtime Saturdays (over 8 hours) and Sundays (first 8 hours)	2 x quoted hourly rate
Overtime Sundays (over 8 hours) and Holidays	3 x quoted hourly rate
Shift differential, swing and graveyard - (Work performed between 2:00 pm and 4:00 am)	12.5%/hour additional to base or quoted rate.

### MISCELLANEOUS CHARGES - Only Where Applicable

Notary Services Fee	\$40.00/each	
Facsimile Charges. Plus \$1.00/page (n/c for cover page)	\$7.00/minimum	
Wireless Router/Data Card for Jobsite Internet	\$135.00/day	
Parking Fees	At Cost	
Air Travel	Cost Plus 10%	
Outside Services	Cost Plus 20%	
Subsistence (per union contract)	\$130.00/day	
Mileage	Standard Federal Rate	
Sample Pickup	<del>\$26.00/each</del>	\$4.00/each
Weekend Sample Pickup	\$105.00/each	
Project Administration	<del>10% of Monthly Invoice</del>	7% of Monthly Invoice
Samples Made by Others: Concrete Cylinders	\$130 + Test	
Samples Made by Others: All Other Tests	\$55.00 + Test	
Laboratory Sample Witness Fee	\$130.00	
Laboratory Sample Storage Fee (per sample)	\$120.00	
EZ Cure Boxes (Thermostatically Controlled Curing Boxes)	QOR	
Returned Check Fee	\$150.00	

### TESTS

Testing fees shown include normal time for performing test. Samples requiring special preparation will be charged at the laboratory technician rate. Fees for tests not listed will be quoted upon request. There will be a minimum charge of \$100.00 for any engineering report. Please note some tests maybe tested by subconsultants. Samples delivered to the laboratory after 3:00pm or samples needing results within 24 hours will incur a 50% mark-up.

### INSURANCE

The liability of Construction Testing Services (CTS) is limited to CTS's contract value.

### PAYMENT

Invoices will be submitted monthly or bimonthly for services performed during the preceding month and are payable on receipt. Interest of 1.5% per month (but not exceeding the maximum rate allowable by law) will be payable on any amounts not paid within 30 days, payment thereafter to be applied first to accrued interest and then to the principle unpaid amount. Attorney's fees or other costs incurred in collecting any delinquent amount shall be paid by client. Visa, MasterCard and American Express payments are accepted however fees will apply. Visa and MasterCard payments require an additional 3% on top of the amount of the invoice being paid. American Express payments require an additional 4% on top of the amount of the invoice being paid.



**CONCRETE AND MASONRY TESTS**

<b>CONCRETE</b>		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
Compressive Strength of Cylindrical Concrete Specimens (6x12)	ASTM C39	\$84.00	
Compressive Strength of Cylindrical Concrete Specimens (4x8)	ASTM C39	<del>\$84.00</del>	\$18.00
Compressive Strength of Cylindrical Concrete Specimens (Over 8000 PSI)	ASTM C39	\$143.00	
Cylinder molds. 6" x 12" and 4" x 8"	ASTM C470	\$72.00	
Compressive Strength of Lightweight Insulating Concrete	ASTM C495	\$94.00	
Obtaining and Testing Sawed Beams and Drilled Cores of Concrete (Cores)	ASTM C42	\$121.00	
Flexural Toughness of Fiber Reinforced Concrete (Round Panel)	ASTM C1550	\$440.00	
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	ASTM C78	\$308.00	
Flex Beams per Caltrans Test Methods	CT523 and CT524	\$308.00	
Length Change of Hardened Hydraulic-Cement Mortar and Concrete (Shrinkage, 1 Sample)	ASTM C157	\$150.00	
Shotcrete Nozzleman Qualification Letter (Per Nozzleman, Per Position)	ACI 506, ASTM C42 and C1140	<del>\$440.00</del>	\$200.00
Shotcrete Pre-Qualification Cores (Compression and Visual)	ACI 506, ASTM C42 and C1140	<del>\$440.00</del>	\$35.00
Shotcrete Production Cores	ASTM C1140	<del>\$440.00</del>	\$35.00
Coefficient of Thermal Expansion	AASHTO T336	\$535.00	
Determining Density of Structural Lightweight Concrete (Cylinders)	ASTM C567	\$405.00	
Standard Specification for Concrete Made by Volumetric Batching and Mixing	ASTM C685	\$965.00	
Cement Quality Sampling	CBC 2010	\$667.00	
Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete	ASTM C472	\$55.00	
Splitting Tensile Strength of Cylindrical Concrete Specimens	ASTM C496	\$253.00	
Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression	ASTM C469	\$215.00	
Grab Sample, Sealing and Storing in a Humidity and Temperature Controlled Room	CBC	\$150.00	
Density of Hydraulic Cement	ASTM C188	\$195.00	
Testing of Controlled Low Strength Material (CLSM) Test Cylinders	ASTM D4832	\$150.00	
GFRC Pull Test	PCI	\$374.00	
GFRC Flexural Test	PCI	\$374.00	
Foaming Agents for Use in Producing Cellular Concrete Using Preformed Foam (Cell-Crete)	ASTM C796	\$525.00	
<b>MASONRY</b>			
Compressive Testing of Grout (Masonry)	ASTM C1019	\$121.00	
Compressive Strength of Hydraulic Cement Mortars Using 2" Cube Specimens	ASTM C109	\$121.00	
Compressive Strength of Masonry Prisms	ASTM C1314	\$187.00	
Testing Concrete Masonry Units and Related Units (Core Compression)	CBC 2105A.4	\$187.00	
Compressive Strength of Molded Masonry Mortar Cylinders and Cubes (2" Sample)	ASTM C780 A7.6	\$121.00	
Testing Concrete Masonry Units (CMU) and Related Units (Full Unit)	ASTM C140	\$184.00	
Linear Drying Shrinkage of Concrete Masonry Units (Per Unit)	ASTM C426	\$270.00	
Masonry Core Shear Testing	CBC 2105A.4	\$270.00	
Testing Concrete Masonry Units (Absorption, Moisture Content, Unit Weight)	ASTM C140	\$340.00	
Brick and Clay Tile (modulus of rupture, compression, saturation coefficient, suction rate, efflorescence)*	ASTM C67	\$1,000.00	
Mortar Molds. 2" x 4". Single Use		\$121.00	
Mortar or Grout, Stored and Cured, Not Tested (Including Mold)		\$121.00	
<b>AGGREGATES (SOILS AND CONCRETE)</b>			
Determining Sieve Analysis of Fine and Coarse Aggregates (Coarse Only)	CT202/ASTM C136	\$220.00	\$70.00
Sieve Analysis of Fine and Coarse Aggregates (Fine Only)	CT202/ASTM C136	\$295.00	
Sieve Analysis of Fine and Coarse Aggregates (Wash Included)	CT202/ASTM C117	\$370.00	
Sieve Analysis of Fine and Coarse Aggregates (200 Wash Only)	ASTM C117	\$220.00	
Evaluating Cleanliness of Coarse Aggregate	CT227	\$370.00	
Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	ASTM C88/CT214	\$275.00	
Unit Weight of Aggregate	CT212	\$158.00	
Clay Lumps and Friable Particles in Aggregates	ASTM C142	\$215.00	
Flat Particles, Elongated Particles or Flat and Elongated Particles in Coarse Aggregate	ASTM D4791/CT235	\$370.00	
Organic Impurities in Fine Aggregates for Concrete	CT213/ASTM C40	\$336.00	
Density, Relative Density(Specific Gravity), and Absorption of Coarse Aggregate	ASTM C127/CT206	\$336.00	
Density, Relative Density(Specific Gravity), and Absorption of Fine Aggregate	ASTM C128/CT207	\$336.00	
Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C131(535) and C211	\$535.00	
Percentage of Crushed Particles/Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	ASTM D5821/CT205	\$405.00	
Uncompacted Void Content of Fine Aggregate (as Influenced by Particle Shape, Surface Texture, and Grading)	ASTM C1252/AASHTO T304A	\$405.00	
Sand Equivalent Value of Soils and Fine Aggregate	ASTM D2419/CT217	<del>\$270.00</del>	\$145.00
Durability Index (Fine)	ASTM D3744/CT229	<del>\$405.00</del>	\$145.00
Durability Index (Coarse)	ASTM D3744/CT229	<del>\$405.00</del>	\$145.00
Durability Index (Fine and Coarse)	ASTM D 3744/CT229	\$405.00	
Lightweight Particles in Aggregate	ASTM C123/AASHTO T113	QOR	
Resistance of Rock to Wetting and Drying	CRD-C169	\$590.00	

\*Unusual sample preparation for brick specimen will be charged at the established hourly rate.

### SOILS, AGGREGATE, ASPHALTIC CONCRETE SERVICES & TESTS

<b>SOILS</b>		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
Direct Shear Test of Soils Under Consolidated Drained Conditions	ASTM D3080	\$535.00	
Caltrans Corrosivity Package		\$505.00	
Determining Field and Laboratory Resistivity and pH Measurements for Soil and Water	CT643	QOR	
Soils and Waters for Sulfate Content	CT417	QOR	
Soils and Waters for Chloride Content	CT422	QOR	
Particle-Size Analysis of Soils (with Hydrometer)	ASTM D422	\$590.00	
Pore Water Extraction and Determination of the Soluble Salt Content of Soils by Refractometer	ASTM D4542	\$625.00	
Standard Test Method for Particle-Size Analysis of Soils (without Hydrometer)	ASTM D422	\$535.00	
Liquid Limit, Plastic Limit, and Plasticity Index of Soils	ASTM D4318/CT204	\$535.00	
Laboratory Compaction Characteristics of Soil Using Modified/Standard Effort	ASTM D1557/D698	<del>\$502.00</del>	\$220.00
Hydrometer Only	ASTM D422	\$535.00	
pH of Soils	ASTM D4972	\$467.00	
Relative Compaction of Untreated and Treated Soils and Aggregates	CT216	\$590.00	
Determining the Resistance "R" Value of Treated and Untreated Bases, Subbases, and Basement Soils by the Stabilometer	ASTM D2844/CT301	<del>\$590.00</del>	\$195.00
Laboratory Determination of Water(*moisture) Content of Soil and Rock by Mass	ASTM D2216/CT226	\$150.00	
Density of Soil in Place by the Drive-Cylinder Method	D2937	\$116.00	
Expansion Index of Soils	ASTM D4829	\$405.00	
Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter (Permeability)	ASTM D5084/CT220	\$550.00	
Lab Compaction Characteristics of Soil 1 Point Proctor (Check Point)	ASTM D698/D1557	\$337.00	
Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	ASTM D4253	\$285.00	
Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density	ASTM D4254	\$285.00	
Density of Hydraulic Cement	ASTM C188	\$253.00	
Volatile Organic Content	EPA 8260B	QOR	
Semi Volatile Organics by GC/Ms (Basic Target List)	EPA 8270C	QOR	
Total Organic Carbon	ASTM 2974/EPA 5310Bm	QOR	
ICP Metals Concentration	EPA 6020 - CAM/CCR 17	QOR	
Total Extractable Petroleum Hydrocarbons: TPH, MTBE, Benzene, Toluene, Ethylbenzene, Zylenes, %SS	EPA 8015B	QOR	
ICP Metals Concentration	EPA 6020	QOR	
pH	EPA 9045D	\$535.00	
Sequential Batch Extraction of Waste with Acidic Extraction Fluid	ASTM D5284	QOR	
Chromium Soluble	EPA 7196A	QOR	
Moisture, Ash and Organic Matter of Peat and Other Organic Soils (Organic Content)	ASTM D2974	\$270.00	
Universal Soil Classification System (USCS) Test	ASTM D2487	\$300.00	
California Bearing Ratio Test	ASTM D1883	\$370.00	
Unconfined Compressive Strength of Cohesive Soil	ASTM D2166/CT221	\$187.00	
<b>ASPHALT</b>			
Quantitative Extraction of Bitumen from Bituminous Paving Mixtures (Solvent)	ASTM D2172/CT310	\$732.00	
Determining Low Temperature Performance Grade (PG) of Asphalt Binders	ASTM 6816	QOR	
Thickness/Height of Compacted Bituminous Paving Mixture Specimens (Cores)	ASTM D3549/CT308	\$270.00	
Method of Prep of Bituminous Mixture Test Specimens	ASTM D6926/CT304	\$270.00	
Bulk Specific Gravity and Density of Compacted Bituminous Mixtures (LTMD)	ASTM D1188 and D2726/CT308	\$990.00	
Indirect Tensile (IDT) Strength of Bituminous Mixtures (TSR)	ASTM D6931/CT371	\$3,146.00	
Mechanical Size Analysis (Coarse and Fine) of Extracted Aggregate	ASTM D5444/CT202	\$405.00	
Marshall Stability and Flow of Bituminous Mixtures	ASTM D6927	\$990.00	
Theoretical Maximum Specific Gravity and Density (Rice)	ASTM D2041/CT309	<del>\$405.00</del>	\$250.00
Measuring the Permeability of Bituminous Pavements and Seal Coats	CT341		
Swell of Bituminous Mixtures	CT305	\$370.00	
Moisture Vapor Susceptibility of Bituminous Mixtures/Moisture or Volatile Distillates in Asphalt	ASTM D1461/CT307	\$930.00	
Stabilometer Value (1 sample)	CT366	\$370.00	
Determination of Asphalt Content of Bituminous Paving Mixtures by the Ignition Method	CT382/ASTM D6307	\$405.00	
Determination of Correction Factor of Bituminous Paving Mixtures by the Ignition Method	CT382/ASTM D6307	\$405.00	
Determination of Asphalt and Moisture Contents of Bituminous Mixtures by Microwave Oven	CT370	\$405.00	
Effect of Water on Compressive Strength of Compacted Bituminous Mixtures (Set of 6)	ASTM D1075	\$3,330.00	
Compressive Strength of Bituminous Mixtures	ASTM D1074	\$270.00	
Hamburg Wheel Track	AASHTO T324	\$3,630.00	
Moisture Susceptibility	AASHTO T283	\$3,630.00	

\* Unusual sample preparation (dried clays, saturated clays, etc.) and all other tests for treated or untreated soils, aggregate subbase and aggregate base will be charged at established rates for laboratory technician.

\*\* Does not include sample preparation or sieve analysis



<b>MATERIALS MECHANICAL TESTS</b>		<b>Standard Rate/Each</b>	<b>Discounted Rate/Each</b>
Mechanical Testing of Steel Products (General Tensile)	ASTM A370	\$470.00	
Fillet Weld Break Test for Qualification (Welding)	AWS B4.0	\$205.00	
Tension Testing of Metallic Materials, Tension Testing Wrought and Cast Aluminum and Magnesium-Alloy Products, (Welding Coupon Tensile)	ASTM E8, B557 and AWS B4.0	\$470.00	
Mechanical Testing of Steel Products (Couplers)	ASTM A370	\$460.00	
Impact Testing of Miniaturized Charpy V-Notch Specimens, Notched Bar Impact Testing of Metallic Materials	ASTM E2248 and ASTM E23	QOR	
Testing, Practices, and Terminology for Chemical Analysis of Steel Products	ASTM A751	\$336.00	
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #3-#8	ASTM A370 and E290	<del>\$370.00</del>	\$150.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #9-#11	ASTM A370 and E290	<del>\$440.00</del>	\$165.00
Mechanical Testing of Steel Products & Bend Testing of Material for Ductility; #14+	ASTM A370 and E290	QOR	
Mechanical Testing of Steel Products, Standard Specification for Steel Wire, Plain, for Concrete Reinforcement	ASTM A370, A82 and A185	\$440.00	
Guided Bend Test for Ductility of Welds, Mechanical Testing of Welds	ASTM E190 and AWS B4.0	\$270.00	
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Anchor Bolts Only (Tension and Yield)	ASTM F307, F1554 and F606	<del>\$528.00</del>	\$295.00
Rockwell Hardness of Metallic Materials	ASTM E18	\$150.00	
Proof Test for Carbon and Alloy Steel (Nuts Only)	ASTM A194 or A563	\$337.00	
Radiographic Examination of Metallic Castings/Weldments	ASTM E94, E1030 and E1032	QOR	
Macroetching Metals and Alloys	ASTM E340, E381 and AWS	\$337.00	
Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators, and Rivets (HSB Assemblies)	ASTM F606	<del>\$370.00</del>	\$185.00
Mechanical Testing of Steel Products (Terminators Tensile)	ASTM A370	\$370.00	
Strength for Sewn or Bonded Seams of Geotextiles	ASTM D4884	\$336.00	
Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure	ASTM D2261	\$336.00	
Breaking Strength and Elongation of Textile Fabrics (Grab Test)	ASTM D5034	\$270.00	
Tensile Properties of Fiber Reinforced Polymer Matrix Composite Bars	ASTM D3039	\$990.00	
Steel Strand, Uncoated Seven-Wire for Prestressed Concrete	ASTM A416 and A1061	\$1,463.00	
<b>FIREPROOFING</b>			
Thickness and Density of Sprayed Fire-Resistive Material (SFRM)	ASTM E605	\$270.00	
Cohesion/Adhesion of Sprayed Fire-Resistive Materials (Test Kit Only)	ASTM E736	\$77.00	

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