

May 18, 2018
Project No. 402402003

Mr. Doug Horner AIA
Vice Chancellor
Facilities/Bond Programs and Operations
7600 Dublin Boulevard, 3rd Floor
Dublin, California 94568

Subject: Change Order Request 03
Geotechnical Observation and Materials Testing Services
New Academic Building 100 – Increment 1 & 2
Las Positas College
DSA App. No.:01-115572; File No.:1-C2

Dear Mr. Horner:

As you know, construction activities are ongoing and we have been providing geotechnical observation and materials testing services in accordance with our proposal dated April 27, 2016, Change Order #1 dated January 18, 2017, Change Order #2 dated July 13, 2017 and jurisdictional requirements, the provided DSA 103 sheet, DSA approved plans and specifications, and as requested by the Project Inspector. The fee for the requested services provided during construction of the subject project and associated improvements will exceed the estimated amount of our current contract. In preparing this change order request, we reviewed our accounting records, discussed the anticipated remaining on-site work and revisited the project plans and specifications.

This need for additional funds can be primarily attributed to the project's extended construction schedule and extended work days. The below extra scope items were added to the contractor's schedule totaling 20 days of extra work already performed shown in the attached break down of hours (Table 1).

SERVICES REMAINING

An estimate of additional time and associated fees for geotechnical observation and materials testing has been developed based on time already accrued and our

Table 1 - Breakdown of Estimated Fee

Field Services

Field Technician	Geotechnical Observation and Compaction Testing (Sidewalks/Trenches/Sitework - 20 site visits)	120 hours @ \$ 93.00 /hour	\$ 11,160.00
Vehicle Usage	Field Vehicle	120 hours @ \$ 12.00 /hour	\$ 1,440.00
Equipment Usage	Nuclear Density Gauge	120 hours @ \$ 10.00 /hour	\$ 1,200.00
		Subtotal	\$ 13,800.00

Project Coordination, Management and Report Preparation

Principal Engineer	Consultation & Reports (DSA-293)	3 hours @ \$ 155.00 /hour	\$ 465.00
Project Engineer	Project Coordination & Report Review	5 hours @ \$ 133.00 /hour	\$ 665.00
		Subtotal	\$ 1,130.00

TOTAL ESTIMATED FEE

\$ 14,930.00

understanding of the remaining work for the project. It is our understanding that services remaining include preparation of a grading report with Interim and Final Verified Reports at the completion of the project.

ADDITIONAL SERVICES

It is our understanding that the additional services include onsite inspection of structural steel fireproofing and associated laboratory fireproofing density testing.

CONTRACT SUMMARY

As of our April 2018 billing, the accumulated fee for the subject project was approximately \$227,000. Based upon our understanding of the remaining work and our services provided to date, we estimate our fees to be approximately \$14,930 more than the currently approved budget. Therefore, this change order request is for \$14,930 (Fourteen Thousand Nine Hundred and Thirty Dollars), as shown in the attached Table 1 – Change Order No. 3 (Breakdown of Hours). The contract history for this project is as follows:

Initial Combined Budget from Increment 1 & 2 Proposals	\$	51,904
Change Order No. 1	\$	114,420
Change Order No. 2	\$	50,875
Amount Requested for Change Order No. 3	\$	<u>14,930</u>
New Contract Amount	\$	232,129

The estimate provided for this request is based upon our understanding of the remaining work. We appreciate this opportunity to be of continued service.

Respectfully submitted,

NINYO & MOORE



Lothus Hennefer
Project Manager



Mark J. Hahle
Principal/Director of Construction Services

LMH/MJH/slt

Attachment: Table 1- Breakdown of Estimated Fees

Distribution: (1) Addressee (via e-mail)



Geotechnical & Environmental Sciences Consultants

July 13, 2017
Project No. 402402003

Mr. Doug Horner AIA
Vice Chancellor
Facilities/Bond Programs and Operations
7600 Dublin Boulevard, 3rd Floor
Dublin, California 94568

Subject: Change Order Request 02
Geotechnical Observation and Materials Testing Services
New Academic Building 100 – Increment 1 & 2
Las Positas College
DSA App. No.:01-115572; File No.:1-C2

Dear Mr. Horner:

As you know, construction activities are ongoing and we have been providing geotechnical observation and materials testing services in accordance with our proposal dated April 27, 2016 and Change Order #1 dated January 18, 2017, jurisdictional requirements, the provided DSA 103 sheet, DSA approved plans and specifications and as requested by the Project Inspector. The fee for the requested services provided during construction of the subject project and associated improvements will exceed the estimated amount of our current contract. In preparing this change order request, we reviewed our accounting records, discussed the anticipated remaining on-site work with the WSP and revisited the project plans and specifications.

This need for additional funds can be primarily attributed to the project's extended construction schedule and extended work days. The below extra scope items were added to the contractors schedule totaling 27 days of extra work already performed and 5 additional days of extra work to be performed in the future. An additional 10 days of work from our base contract have not yet been completed. Data regarding completed and future extra work items was provided by Fred King from WSP and has been included in the attached break down of hours (Table 1).

SERVICES REMAINING

An estimate of additional time and associated fees for geotechnical observation and materials testing has been developed based on time already accrued and our understanding of the remaining work for the project. It is our understanding that services remaining include ongoing field density testing and observation for removal exiting pipe and backfill of a hydronic trench for a future connection, hardscaping sitework, and preparation of a grading report with Interim and Final Verified Reports at the completion of the project.

CONTRACT SUMMARY

As of our April 2017 billing, the accumulated fee for the subject project was approximately \$165,000.00. Based upon our understanding of the remaining work and our services provided to date, we estimate our fees to be approximately \$50,875 more than the currently approved budget. Therefore, this change order request is for \$50,875 (Fifty Thousand Eight Hundred and Seventy Five Dollars), as shown in the attached Table 1 - Change Order No. 2 (Breakdown of Hours). The contract history for this project is as follows: observation and testing.


Initial Combined Budget from Increment 1 & 2 Proposals	\$	51,904
Change Order No. 1	\$	114,420
Amount Requested for New Purchase Order	\$	50,875
New Contract Amount	\$	217,199

The estimate provided for this request is based upon our understanding of the remaining work. We appreciate this opportunity to be of continued service.

Respectfully submitted,
NINYO & MOORE



Edward D. Louie
Project Manager



Mark J. Hahle
Principal/Director of Construction
Services

EDL/MJH/jf

Distribution: (1) Addressee (via e-mail)

TABLE 1 - CHANGE ORDER 02 BREAKDOWN OF HOURS				
TASK 1 - GEOTECHNICAL OBSERVATION AND TESTING				
	Description of Extra Work already performed	days		
	Remove pipe under foundation & recompact trench	5		
	Hydronic trench performed incrementally	3		
	New SS connection from Bldg. 1300	5		
	Domestic water supply bldg. 700	1		
	District requested DW pipe replacement	5		
	Compaction at 12KV power to Bldgs 700, 900, 1300 & 1320	2		
	Recompaction due to rain at 12 KV trench	3		
	Recompact SS & DW to Contractor's Office	2		
	Observe Slurry placement for IOR	1		
	Subtotal days of additional work	27		
	Description of Extra Work to be performed	Days		
	Future Pipe removal to complete Item 1 above	3		
	Compact hydronic Trench for future connection	2		
	Subtotal of additional future work	5		
	Total Extra Work	32		
	Base Contract work not yet complete	10		
	Total of completed and future Work	42		
	Contingency	8		
	Total Requested Days	50		
Field Technician	Geotechnical Observation & Field Density Testing	400 hours	@ \$ 93 /hour	\$ 37,200
Nuclear Gauge	Equipment Charges	400 hours	@ \$ 12 /hour	\$ 4,800
Vehicle Charges	Field Vehicle Usage	400 hours	@ \$ 10 /hour	\$ 4,000
	Subtotal			\$ 46,000
TASK 2 - PROJECT MANAGEMENT				
Principal Engineer/Geologist	Consultation & Report Preparation (DSA-293)	10 hours	@ \$ 155 /hour	\$ 1,550
Project Engineer/Geologist	Submittal Review, Project Co-ordination & Report Review	25 hours	@ \$ 133 /hour	\$ 3,325
	Subtotal			\$ 4,875
TOTAL ESTIMATED FEES GEOTECHNICAL OBSERVATION & TESTING				\$ 50,875

DRUG-FREE WORKPLACE CERTIFICATION

I, Mark Hahle, am the Principal of New York Moore
(Print Name) (Title) (Contractor Name)

I declare, state and certify to all of the following:

1. I am aware of the provisions and requirements of California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990.
2. I am authorized to certify, and do certify, on behalf of Contractor that a drug free workplace will be provided by Contractor by doing all of the following:
 - A. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in Contractor's workplace and specifying actions which will be taken against employees for violation of the prohibition;
 - B. Establishing a drug-free awareness program to inform employees about all of the following:
 - (i) The dangers of drug abuse in the workplace;
 - (ii) Contractor's policy of maintaining a drug-free workplace;
 - (iii) The availability of drug counseling, rehabilitation and employee-assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations;
 - C. Requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by subdivision (A), above, and that as a condition of employment by Contractor in connection with the Work of the Contract, the employee agrees to abide by the terms of the statement.
3. Contractor agrees to fulfill and discharge all of Contractor's obligations under the terms and requirements of California Government Code §8355 by, inter alia, publishing a statement notifying employees concerning: (a) the prohibition of any controlled substance in the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Work of the Contract be given a copy of the statement required by California Government Code §8355(a) and requiring that the employee agree to abide by the terms of that statement.
4. Contractor and I understand that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of California Government Code §§8355, the Contract awarded herein is subject to termination, suspension of payments, or both. Contractor and I further understand that, should Contractor violate the terms of the Drug-Free Workplace Act of 1990, Contractor may be subject to debarment in accordance with the provisions of California Government Code §§8350, et seq.
5. Contractor and I acknowledge that Contractor and I are aware of the provisions of California Government Code §§8350, et seq. and hereby certify that Contractor and I will adhere to, fulfill, satisfy and discharge all provisions of and obligations under the Drug-Free Workplace Act of 1990.

I declare under penalty of perjury under the laws of the State of California that all of the foregoing is true and correct.

Executed at SAN JOSE this 18th day of July, 2017
(City and State)

M. Hahle
(Signature)

Mark Hahle
(Handwritten or Typed Name)

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

I, Mark Hahl, am the Principal of Ninyo & Moore

I declare, state and certify to all of the following:

- 1. I am aware of the provisions and requirements of California Senate Bill (SB) 854, the Public Works Contractor Registration Program.
2. I am authorized to certify, and do certify, on behalf of Contractor that an annual registration fee has been paid and I am registered as eligible to bid and work on public works projects by doing all of the following:
A. Must have workers' compensation coverage for any employees and only use subcontractors who are glistered public works contractors;
B. Must have Contractors State License Board license, if applicable to trade;
C. Must have no delinquent unpaid wage or penally assessments owed to any employee or enforcement agency;
D. Must not be under federal or state debarment;
E. Must not be in prior violation of this registration requirement once it becomes effective on April 1, 2015.
3. Contractor and I understand that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of the Department of Industrial Relations (DIR), the Contract awarded herein is subject to termination, suspension of payments, or both. Contractor and I further understand that, should Contractor violate the terms of the Public Works Contractor Registration Certification Law of California Senate Bill 854, Contractor may be subject to debarment in accordance with the provisions of California Labor Code §§1720, et seq.
4. Contractor and I acknowledge that Contractor and I are aware of the provisions of California Senate Bill 854 and hereby certify that Contractor and I will adhere to, fulfill, satisfy and discharge all provisions of and obligations under the Public Works Contractor Registration Program.

I declare under penalty of perjury under the laws of the State of California that all of the foregoing is true and correct.

Executed at San Jose this 18 day of

July, 2017

[Signature] (Signature)

Mark Hahl (Handwritten or Typed Name)

1000004481 Department of Industrial Relations Registration #



Geotechnical Engineering and Construction Services

January 18, 2017
Project No. 402402003
PO# B-160258

Mr. Doug Horner AIA
Vice Chancellor
Facilities/Bond Programs and Operations
7600 Dublin Boulevard, 3rd Floor
Dublin, California 94568

Subject: Change Order Request 01
Geotechnical Observation and Materials Testing Services
New Academic Building 100 – Increment 1 & 2
Las Positas College
DSA App. No.:01-115572; File No.:1-C2

Dear Mr. Horner:

As you know, construction activities are ongoing and we have been providing geotechnical observation and materials testing services in accordance with our proposal dated April 27, 2016, jurisdictional requirements, the provided DSA 103 sheet, DSA approved plans and specifications and as requested by the Project Inspector. The fee for the requested services provided during construction of the subject project and associated improvements will exceed the estimated amount presented in our proposal. In preparing this change order request, we reviewed our accounting records, discussed the anticipated remaining on-site work with you and revisited the project plans and specifications.

This need for additional funds can be primarily attributed to the project's extended construction schedule and rainy weather. The construction schedule provided at the time of bidding provided estimates of activity duration for site grading and underground utilities at 21 days each, beginning on June 30, 2016. Our initial submitted proposal was based off these provided durations. As of January 6, 2016, utilities for the project have not yet been fully completed. In addition, multiple days of rain in the months of October, November, and December have caused further retesting and observation was required.



3000 Campus Hill Drive
Livermore, California

January 18, 2017
Project No.: 402402003

As a courtesy to CLPCCD, Ninyo & Moore will adjust our contract and billing to charge 4 hour minimums and 2 hour increments instead of 4 hour increments. 2 hours will be billed for cancellations or show-up.

SERVICES REMAINING

An estimate of additional time and associated fees for geotechnical observation and materials testing has been developed based on time already accrued and our understanding of the remaining work for the project. It is our understanding that services remaining include ongoing field density testing, foundation excavation observation, CLSM inspection, site flatwork, hydronic trench backfill observation, and preparation of Interim and Final Verified Reports at the completion of the project. Based off the completed work and anticipated future schedule, we anticipate approximately one to two additional months of part to full time onsite observation and testing.

CONTRACT SUMMARY

As of our August 2016 billing, the accumulated fee for the subject project was approximately \$30,000.00. Based upon our understanding of the remaining work and our services provided to date, we estimate our fees to be approximately \$114,420 more than the initially approved budget. Therefore, this change order request is for \$114,420 (One Hundred Fourteen Thousand Four Hundred and Twenty Dollars), as shown in the attached Table 1 - Change Order No. 1 (Breakdown of Hours). The contract history for this project is as follows:

Initial Combined Budget from Increment 1 & 2 Proposals	\$	51,904
Amount of Requested Change Order No. 1	\$	114,420
New Contract Amount	\$	<u>166,324</u>

TABLE 1 - CHANGE ORDER NO. 01 (BREAKDOWN OF HOURS)				
TASK 1 - GEOTECHNICAL OBSERVATION AND TESTING				
Senior Staff Engineer	Foundation Observation	50 hours	@ \$ 120 /hour	\$ 6,000
Field Technician	Geotechnical Observation & Field Density Testing	630 hours	@ \$ 93 /hour	\$ 77,190
Nuclear Gauge	Equipment Charges	880 hours	@ \$ 12 /hour	\$ 10,560
Vehicle Charges	Field Vehicle Usage	800 hours	@ \$ 10 /hour	\$ 8,000
Subtotal				\$ 102,650
TASK 2 - LABORATORY TESTING				
Proctor Density, D1557, D898, CT210, 1160	Far Soil Compaction Testing	4 tests	@ \$ 260 /test	\$ 1,040
Atterberg Limits, D4318, CT204	Conformance Test	6 tests	@ \$ 180 /test	\$ 1,080
Subtotal				\$ 2,120
TASK 3 - PROJECT MANAGEMENT				
Principal Engineer/Geologist	Consultation & Report Preparation (DSA-203)	20 hours	@ \$ 155 /hour	\$ 3,100
Project Engineer/Geologist	Submittal Review, Project Co-ordination & Report Review	60 hours	@ \$ 133 /hour	\$ 8,050
Subtotal				\$ 11,150
TOTAL ESTIMATED FEES GEOTECHNICAL OBSERVATION & TESTING				\$ 114,420

3000 Campus Hill Drive
Livermore, California

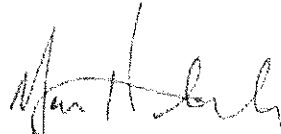
January 18, 2017
Project No.: 402402003

The estimate provided for this change order request is based upon a review of the original contract, our services provided to date, and our understanding of the remaining work. We appreciate this opportunity to be of continuing service.

Respectfully submitted,
NINYO & MOORE



Edward D. Louie
Project Manager



Mark J. Hahle
Director of Construction Services

EDL/MJH/vmp

Attachment: Table 1 – Change Order No. 1 (Breakdown of Hours)

Distribution: 1c: Mr. Fred King / Parsons Brinckerhoff
1c: Mr. Bruce Rich / Parsons Brinckerhoff

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

I, Mark Hahle the Principal of
(Name) (Title)
Ninyo & Moore, declare, state and certify that:
(Contractor Name)

1. I am aware that California Labor Code '3700(a) and (b) provides:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state.
- (b) By securing from the Director of Industrial Relations a certificate of consent to self-insure either as an individual employer, or one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees."

2. I am aware that the provisions of California Labor Code '3700 require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of this Contract.

Ninyo & Moore
(Contractor Name)
By: M. Hahle
(Signature)
Mark Hahle
(Typed or printed name)

DRUG-FREE WORKPLACE CERTIFICATION

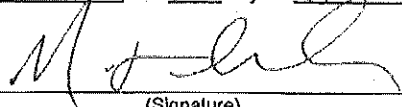
I, Mark Hawk (Print Name) am the Principal (Title) of Ninyo / Moore (Contractor Name)

I declare, state and certify to all of the following:

1. I am aware of the provisions and requirements of California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990.
2. I am authorized to certify, and do certify, on behalf of Contractor that a drug free workplace will be provided by Contractor by doing all of the following:
 - A. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in Contractor's workplace and specifying actions which will be taken against employees for violation of the prohibition;
 - B. Establishing a drug-free awareness program to inform employees about all of the following:
 - (i) The dangers of drug abuse in the workplace;
 - (ii) Contractor's policy of maintaining a drug-free workplace;
 - (iii) The availability of drug counseling, rehabilitation and employee-assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations;
 - C. Requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by subdivision (A), above, and that as a condition of employment by Contractor in connection with the Work of the Contract, the employee agrees to abide by the terms of the statement.
3. Contractor agrees to fulfill and discharge all of Contractor's obligations under the terms and requirements of California Government Code §8355 by, inter alia, publishing a statement notifying employees concerning: (a) the prohibition of any controlled substance in the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Work of the Contract be given a copy of the statement required by California Government Code §8355(a) and requiring that the employee agree to abide by the terms of that statement.
4. Contractor and I understand that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of California Government Code §8355, the Contract awarded herein is subject to termination, suspension of payments, or both. Contractor and I further understand that, should Contractor violate the terms of the Drug-Free Workplace Act of 1990, Contractor may be subject to debarment in accordance with the provisions of California Government Code §§8350, et seq.
5. Contractor and I acknowledge that Contractor and I are aware of the provisions of California Government Code §§8350, et seq. and hereby certify that Contractor and I will adhere to, fulfill, satisfy and discharge all provisions of and obligations under the Drug-Free Workplace Act of 1990.

I declare under penalty of perjury under the laws of the State of California that all of the foregoing is true and correct.

Executed at SAN JOSE, CALIFORNIA (City and State) this 20th day of January, 2017


(Signature)

Mark Hawk
(Handwritten or Typed Name)

April 27, 2016
Proposal No. 08SJO02-00203A

Mr. Doug Horner
Director of Facilities
Chabot-Las Positas Community College District
7600 Dublin Boulevard
Dublin, California 94578

Subject: Proposal for Geotechnical Observation and Testing Services
Academic Building 100 Increment 1
Las Positas Community College
3000 Campus Hill Drive, Livermore, California 94551
Application No.: 01-115572; DSA File No.: 1-C2

Dear Mr. Horner:

In accordance with your request, Ninyo & Moore is pleased to provide this proposal to perform geotechnical observation and testing services for the Las Positas Community College Academic Building 100 increment 1 project in Livermore, California. This proposal provides cost estimates based on our review of the available project plans and specifications, and our previous experience with similar projects of this nature.

The purpose of our services will be to provide you with field and laboratory data and information in order to assess compliance with the project plans and specifications. Included in this proposal is a discussion of our understanding of the project, the scope of services we can provide, and associated fees.

PROJECT UNDERSTANDING AND PROPOSED CONSTRUCTION

We understand that this project will include demolition of buildings 100, 200, 300, and the building walkways. Construction will consist of a new 38,847 SF academic building with twelve classrooms, six computer lab classrooms, anthropology lab classroom, and lecture hall.

SCOPE OF SERVICES

Specific to this contract, Ninyo & Moore is capable and experienced in providing the needed testing and inspection services. Based on our review of the project documents we will provide the following scope of services.

- Manage the project, including review and distribution of semi-monthly reports with test data and daily field inspection reports.
- Preparation of daily field reports documenting items inspected.
- Coordinate inspections and testing requests with the project inspector.
- Geotechnical Inspection and Testing Services include:
 - Perform laboratory tests to evaluate the proctor density of subgrade, fill for foundation, trench backfill and aggregate base for compaction testing.
 - Perform compaction testing of soil for trench backfill, subgrade, building pad and site grading.
 - Observe site preparation, excavation, and removal of unsuitable materials.
 - Observe prepared subgrade for conformance with geotechnical recommendations and design assumptions for foundation and site work.
 - Perform field density tests to evaluate compaction of subgrade and aggregate base.
 - Prepare daily field reports describing the work observed.
- Provide interim and final affidavits at the project's closeout.

SCOPES OF LABORATORY SERVICES

- Proctor density test of soil

ASSUMPTIONS

- Our services will be scheduled and coordinated by the District's Project Inspector.
- The contractor and subcontractors will maintain a 40-hour work week during normal daytime work hours. Weekend and overtime work has not been included in this cost proposal.
- Our services are subject to California prevailing wage law.

- Field Technician and special inspector's rates are based a 4-hour minimum for the first 4 hours and an 8-hour minimum for hours exceeding 4 hours. Show up time will be charged based on a 2-hour minimum. Field personnel are charged portal to portal from our San Jose office.
- Shoring and waterproofing observation and testing services to be provide by others and are not included in the cost estimate.
- Services that are not included will be provided upon the District's written request based on he attached fee schedule.
- Additional laboratory testing will be provided upon request and written approval, and will be billed at the rates listed on our current fee schedule.

PROPOSED ESTIMATED COST

TASK NO.	Summary of Estimated Fees for Geotechnical Observation and Testing Services	Estimated Fees
1	Geotechnical Observation & Testing	\$30,100
2	Laboratory Testing	\$1,560
3	Project Management	\$2,748
	Total Estimated Fee	\$34,408

Our proposed time-and-materials fee estimate for the scope of services described is **\$34,408 (Thirty Four Thousand Four Hundred and Eight Dollars)**. Detailed estimate of fees for geotechnical observation and testing services are attached under Table1. Construction schedule was not available at the time of this proposal preparation. Should the construction schedule require a lesser or greater amount of services than that estimated herein, the cost will vary accordingly. The actual cost of our services will depend largely on the requested site visits for our services, as well as impact of weather and work stoppages, all of which are beyond our control. When possible, we will combine inspection and testing services to reduce the cost of our services.

We will provide services on an as-needed basis and will require 24-hour notice for scheduling inspection and testing visits.

3000 Campus Hill Drive
Livermore, California

April 27, 2016
Proposal No. 08SJO02-00203A

We appreciate the opportunity to submit this proposal, and look forward to working with you on this project.

Sincerely,
NINYO & MOORE

Ruchil R. Shah
Project Manager

Mark J. Hahle
Principal, Director of Construction Services

RS/MJH/slm

Attachments: Table 1 – Breakdown of Estimated Fees
Schedule of Fees

Distribution: (1) Addressee

TABLE 1 - BREAKDOWN OF ESTIMATED FEE - LAS POSITAS COMMUNITY COLLEGE ACADEMIC BUILDING 100 - INCREMENT 1				
TASK 1 - GEOTECHNICAL OBSERVATION AND TESTING				
Senior Staff Engineer	Foundation & Geotechnical Observation	40 hours	@ \$ 120 /hour	\$ 4,800
Field Technician	Field Density Testing	220 hours	@ \$ 93 /hour	\$ 20,460
Nuclear Gauge Charges	Equipment Charges	220 hours	@ \$ 12 /hour	\$ 2,640
Vehicle Charges	Field Vehicle Usage	220 hours	@ \$ 10 /hour	\$ 2,200
	Subtotal			\$ 30,100
TASK 2 - LABORATORY TESTING				
Proctor Density, D1557, D698, CT216, T180	Moisture & Density Curve	6 tests	@ \$ 260 /test	\$ 1,560
	Subtotal			\$ 1,560
TASK 3 - PROJECT MANAGEMENT				
Principal Engineer/Geologist	Consultation & Interim and Final Report Preparation (DSA-291)	4 hours	@ \$ 155 /hour	\$ 620
Project Engineer/Geologist	Submittal Review, Project Co-ordination & Report Review	16 hours	@ \$ 133 /hour	\$ 2,128
	Subtotal			\$ 2,748
TOTAL ESTIMATED FEES GEOTECHNICAL OBSERVATION & TESTING				\$ 34,408

SCHEDULE OF FEES

HOURLY CHARGES FOR PERSONNEL

Principal Engineer/Geologist/Environmental Scientist	\$ 155
Senior Engineer/Geologist/Environmental Scientist.....	\$ 150
Senior Project Engineer/Geologist/Environmental Scientist.....	\$ 140
Project Engineer/Geologist/Environmental Scientist.....	\$ 133
Senior Staff Engineer/Geologist/Environmental Scientist	\$ 120
Staff Engineer/Geologist/Environmental Scientist.....	\$ 110
GIS Analyst.....	\$ 105
Field Operations Manager	\$ 113
Supervisory Technician	\$ 108
Nondestructive Examination Technician, UT, MT, LP	\$ 103
Senior Field/Laboratory Technician/Inspector	\$ 93
Field/Laboratory Technician	\$ 93
Concrete/Asphalt Batch Plant Inspector.....	\$ 93
Special Inspector (Concrete, Masonry, Steel, Welding, and Fireproofing).....	\$ 93
Technical Illustrator/CAD Operator.....	\$ 80
Information Specialist.....	\$ 80
Data Processing, Technical Editing, or Reproduction.....	\$ 65

OTHER CHARGES

Expert Witness Testimony	\$ 400 /hr
Concrete Coring Equipment (Includes one technician)	\$ 145 /hr
PID/FID Usage.....	\$ 120 /day
Anchor load test equipment (includes technician)	\$ 97 /hr
Hand Auger Equipment.....	\$ 55 /day
Inclinometer Usage	\$ 32 /hr
Vapor Emission Kits.....	\$ 30 /kit
Level D Personal Protective Equipment (per person per day)	\$ 25 /p/d
Rebar Locator (Pachometer).....	\$ 22 /hr
Nuclear Density Gauge Usage.....	\$ 12 /hr
Field Vehicle Usage.....	\$ 10 /hr
Direct Project Expenses.....	Cost plus 15 %
Laboratory testing, geophysical equipment, and other special equipment provided upon request.	

NOTES (Field Services)

For field and laboratory technicians and special inspectors, regular hourly rates are charged during normal weekday construction hours. Overtime rates at 1.5 times the regular rates will be charged for work performed outside normal construction hours and all day on Saturdays. Rates at twice the regular rates will be charged for all work in excess of 12 hours in one day or on Sundays and holidays. Lead time for any requested service is 24 hours. Field Technician rates are based on a 4-hour minimum. Special inspection rates are based on a 4-hour minimum for the first 4 hours and an 8-hour minimum for hours exceeding 4 hours. Field personnel are charged portal to portal.

INVOICES

Invoices will be submitted monthly and are due upon receipt. A service charge of 1.0 percent per month may be charged on accounts not paid within 30 days.

TERMS AND CONDITIONS

The terms and conditions of providing our consulting services include our limitation of liability and indemnities as presented in Ninyo & Moore's Work Authorization and Agreement.

SCHEDULE OF FEES FOR LABORATORY TESTING
Laboratory Test, Test Designation, and Price Per Test

Soils

Atterberg Limits, D 4318, CT 204.....	\$ 180
California Bearing Ratio (CBR), D 1863.....	\$ 440
Chloride and Sulfate Content, CT 417 & CT 422.....	\$ 135
Consolidation, D 2435, CT 219.....	\$ 275
Consolidation – Time Rate, D 2435, CT 219.....	\$ 70
Direct Shear – Remolded, D 3080.....	\$ 290
Direct Shear – Undisturbed, D 3080.....	\$ 255
Durability Index, CT 229.....	\$ 150
Expansion Index, D 4829, IBC 18-2.....	\$ 240
Expansion Potential (Method A), D 4546.....	\$ 180
Expansion Pressure Method (C), D 4546.....	\$ 180
Geofabric Tensile and Elongation Test, D 4632.....	\$ 165
Hydraulic Conductivity, D 5084.....	\$ 300
Hydrometer Analysis, D 422, CT 203.....	\$ 190
Moisture, Ash, & Organic Matter of Peat/Organic Soils.....	\$ 110
Moisture Only, D 2216, CT 226.....	\$ 30
Moisture and Density, D 2937.....	\$ 50
Permeability, CH, D 2434, CT 220.....	\$ 290
pH and Resistivity, CT 643.....	\$ 160
Proctor Density D 1557, D 698, CT 216, &.....	\$ 260
AASHTO T-180 (Rock corrections add \$80)	
R-value, D 2844, CT 301.....	\$ 425
Sand Equivalent, D 2419, CT 217.....	\$ 110
Sieve Analysis, D 422, CT 202.....	\$ 110
Sieve Analysis, 200 Wash, D 1140, CT 202.....	\$ 90
Specific Gravity, D 854.....	\$ 200
Triaxial Shear, C.D, D 4767, T 297.....	\$ 390
Triaxial Shear, C.U., w/pore pressure, D 4767, T 2297 per pt.....	\$ 330
Triaxial Shear, C.U., w/o pore pressure, D 4767, T 2297 per pt.....	\$ 190
Triaxial Shear, U.U., D 2850.....	\$ 140
Unconfined Compression, D 2166, T 208.....	\$ 100
Wax Density, D 1188.....	\$ 90

Roofing

Built-Up Roofing, cut-out samples, D 2829.....	\$ 165
Roofing Materials Analysis, D 2829.....	\$ 500
Roofing Tile Absorption (set of 5), UBC 15-5.....	\$ 190
Roofing Tile Strength Test (set of 5), UBC 15-5.....	\$ 190

Masonry

Brick Absorption, 24-hour submersion, C 67.....	\$ 45
Brick Absorption, 5-hour boiling, C 67.....	\$ 55
Brick Absorption, 7-day, C 67.....	\$ 60
Brick Compression Test, C 67.....	\$ 50
Brick Efflorescence, C 67.....	\$ 45
Brick Modulus of Rupture, C 67.....	\$ 40
Brick Moisture as received, C 67.....	\$ 35
Brick Saturation Coefficient, C 67.....	\$ 50
Concrete Block Compression Test, 8x8x16, C 140.....	\$ 60
Concrete Block Conformance Package, C 90.....	\$ 1100
Concrete Block Linear Shrinkage, C 426.....	\$ 120
Concrete Block Unit Weight and Absorption, C 140.....	\$ 55
Cores, Compression or Shear Bond, CA Code.....	\$ 85
Masonry Grout, 3x3x6 prism compression, C 39.....	\$ 30
Masonry Mortar, 2x4 cylinder compression, C 109.....	\$ 30
Masonry Prism, half size, compression, C 1019.....	\$ 180

Concrete

Cement Analysis Chemical and Physical C 109.....	\$ 1,650
Compression Tests, 6x12 Cylinder, C 39.....	\$ 30
Concrete Mix Design Review, Job Spec.....	\$ 140
Concrete Mix Design, per Trial Batch, 6 cylinder, ACI.....	\$ 750
Concrete Cores, Compression (excludes sampling), C 42.....	\$ 55
Drying Shrinkage, C 157.....	\$ 250
Flexural Test, C 78.....	\$ 100
Flexural Test, C 293.....	\$ 55
Flexural Test, CT 523.....	\$ 100
Gunite/Shotcrete, Panels, 3 cut cores per panel and test, ACI.....	\$ 25
Jobsite Testing Laboratory.....	Quote
Lightweight Concrete Fill, Compression, C 495.....	\$ 55
Petrographic Analysis, C 856.....	\$ 1,100
Restrained Expansion of Shrinkage Compensation.....	\$ 80

Reinforcing and Structural Steel

Fireproofing Density Test, UBC 7-6.....	\$ 70
Hardness Test, Rockwell, A-370.....	\$ 80
High Strength Bolt, Nut & Washer Conformance, per assembly, A-325.....	\$ 205
Mechanically Spliced Reinforcing Tensile Test, ACI.....	\$ 95
Pre-Stress Strand (7 wire), A 416.....	\$ 140
Chemical Analysis, A-36, A-615.....	\$ 120
Reinforcing Tensile or Bend up to No. 11, A 615 & A 706.....	
No. 8 Rebar.....	\$ 55
No. 11 Rebar.....	\$ 75
No. 18 Rebar.....	\$ 150
Structural Steel Tensile Test: Up to 200,000 lbs. (machining extra), A 370.....	\$ 105
Welded Reinforcing Tensile Test: Up to No. 11 bars, ACI.....	\$ 80
Tensile Test for Fiberwrap (ASTM D-3039).....	\$ 675

Asphalt Concrete

Asphalt Mix Design, Caltrans.....	\$ 2,200
Asphalt Mix Design Review, Job Spec.....	\$ 150
Extraction, % Asphalt, including Gradation, D 2172, CT 382.....	\$ 215
Film Stripping, CT 302.....	\$ 100
Hveem Stability and Unit Weight CTM or ASTM, CT 366.....	\$ 195
Marshall Stability, Flow and Unit Weight, T-245.....	\$ 215
Maximum Theoretical Unit Weight, D 2041.....	\$ 120
Swell CT 305.....	\$ 165
Unit Weight sample or core, D 2726, CT 308.....	\$ 90

Aggregates

Absorption, Coarse, C 127.....	\$ 35
Absorption, Fine, C 128.....	\$ 35
Clay Lumps and Friable Particles, C 142.....	\$ 100
Cleaness Value, CT 227.....	\$ 160
Crushed Particles, CT 205.....	\$ 140
Durability, Coarse, CT 229.....	\$ 165
Durability, Fine, CT 229.....	\$ 165
Los Angeles Abrasion, C 131 or C 535.....	\$ 180
Organic Impurities, C 40.....	\$ 55
Potential Reactivity of Aggregate (Chemical Method), C 289.....	\$ 390
Mortar making properties of fine aggregate, C 87.....	\$ 275
Sand Equivalent, CT 217.....	\$ 90
Sieve Analysis, Coarse Aggregate, C 136.....	\$ 125
Sieve Analysis, Fine Aggregate (including wash), C 136.....	\$ 125
Sodium Sulfate Soundness (per size fraction), C 88.....	\$ 160
Specific Gravity, Coarse, C 127.....	\$ 75
Specific Gravity, Fine, C 128.....	\$ 110

Special preparation of standard test specimens will be charged at the technician's hourly rate.
Ninyo & Moore is accredited to perform the AASHTO equivalent of many ASTM test procedures.

April 27, 2016
Proposal No. 08SJO02-00204A

Mr. Doug Horner
Director of Facilities
Chabot-Las Positas Community College District
7600 Dublin Boulevard
Dublin, California 94578

Subject: Proposal for Geotechnical Observation and Testing Services
Academic Building 100 Increment 2
Las Positas Community College
3000 Campus Hill Drive, Livermore, California 94551
Application No.: 01-115572; DSA File No.: 1-C2

Dear Mr. Horner:

In accordance with your request, Ninyo & Moore is pleased to provide this proposal to perform geotechnical observation and testing services for the Las Positas Community College Academic Building 100 increment 2 project in Livermore, California. This proposal provides cost estimates based on our review of the available project plans, schedule, and specifications, and our previous experience with similar projects of this nature.

The purpose of our services will be to provide you with field and laboratory data and information in order to assess compliance with the project plans and specifications. Included in this proposal is a discussion of our understanding of the project, the scope of services we can provide, and associated fees.

PROJECT UNDERSTANDING AND PROPOSED CONSTRUCTION

We understand that this project will include demolition of buildings 100, 200, 300, and the building walkways. Construction will consist of a new 38,847 SF academic building with twelve classrooms, six computer lab classrooms, anthropology lab classroom, and lecture hall.

SCOPE OF SERVICES

Specific to this contract, Ninyo & Moore is capable and experienced in providing the needed testing and inspection services. Based on our review of the project documents we will provide the following scope of services.

- Manage the project, including review and distribution of semi-monthly reports with test data and daily field inspection reports.
- Preparation of daily field reports documenting items inspected.
- Coordinate inspections and testing requests with the project inspector.
- Geotechnical Inspection and Testing Services include:
 - Perform laboratory tests to evaluate the proctor density of subgrade, fill for foundation, trench backfill and aggregate base for compaction testing.
 - Perform compaction testing of soil for trench backfill, subgrade, building pad and site grading.
 - Observe site preparation, excavation, and removal of unsuitable materials.
 - Observe prepared subgrade for conformance with geotechnical recommendations and design assumptions for foundation and site work.
 - Perform field density tests to evaluate compaction of subgrade and aggregate base.
 - Prepare daily field reports describing the work observed.
- Provide interim and final affidavits at the project's closeout.

SCOPES OF LABORATORY SERVICES

- Proctor density test of soil
- Sieve analysis

ASSUMPTIONS

- Our services will be scheduled and coordinated by the District's Project Inspector.
- The contractor and subcontractors will maintain a 40-hour work week during normal daytime work hours. Weekend and overtime work has not been included in this cost proposal.
- Our services are subject to California prevailing wage law.

- Field Technician and special inspector's rates are based a 4-hour minimum for the first 4 hours and an 8-hour minimum for hours exceeding 4 hours. Show up time will be charged based on a 2-hour minimum. Field personnel are charged portal to portal from our San Jose office.
- Shoring and waterproofing observation and testing services to be provide by others and are not included in the cost estimate.
- Services that are not included will be provided upon the District's written request based on he attached fee schedule.
- Additional laboratory testing will be provided upon request and written approval, and will be billed at the rates listed on our current fee schedule.

PROPOSED ESTIMATED COST

TASK NO.	Summary of Estimated Fees for Geotechnical Observation and Testing Services	Estimated Fees
1	Geotechnical Observation & Testing	\$13,800
2	Laboratory Testing	\$1,480
3	Project Management	\$2,216
	Total Estimated Fee	\$17,496

Our proposed time-and-materials fee estimate for the scope of services described is **\$17,496 (Seventeen Thousand Four Hundred and Ninety Six Dollars)**. Detailed estimate of fees for geotechnical observation and testing services are attached under Table1. Should the construction schedule require a lesser or greater amount of services than that estimated herein, the cost will vary accordingly. The actual cost of our services will depend largely on the requested site visits for our services, as well as impact of weather and work stoppages, all of which are beyond our control. When possible, we will combine inspection and testing services to reduce the cost of our services.

We will provide services on an as-needed basis and will require 24 hours notice for scheduling inspection and testing visits.

3000 Campus Hill Drive
Livermore, California

April 27, 2016
Proposal No. 08SJO02-00204A

We appreciate the opportunity to submit this proposal, and look forward to working with you on this project.

Sincerely,
NINYO & MOORE



Ruchil R. Shah
Project Manager



Mark J. Hahle
Principal, Director of Construction Services

RS/MJH/slm

Attachments: Table 1 – Breakdown of Estimated Fee
Schedule of Fees

Distribution: (1) Addressee

TABLE 1 - BREAKDOWN OF ESTIMATED FEE - LAS POSITAS COMMUNITY COLLEGE ACADEMIC BUILDING INCREMENT 2				
TASK 1 - GEOTECHNICAL OBSERVATION AND TESTING				
Senior Staff Engineer	Foundation Observation	40 hours	@ \$ 93 /hour	\$ 3,720
Field Technician	Geotechnical Observation & Field Density Testing	80 hours	@ \$ 93 /hour	\$ 7,440
Nuclear Gauge	Equipment Charges	120 hours	@ \$ 12 /hour	\$ 1,440
Vehicle Charges	Field Vehicle Usage	120 hours	@ \$ 10 /hour	\$ 1,200
Subtotal				\$ 13,800
TASK 2 - LABORATORY TESTING				
Proctor Density, D1557, D898, CT216, T180	For Soil Compaction Testing	4 tests	@ \$ 260 /test	\$ 1,040
Sieve Analysis of Soil with 200 Wash, C136	Conformance Test	4 tests	@ \$ 110 /test	\$ 440
Subtotal				\$ 1,480
TASK 3 - PROJECT MANAGEMENT				
Principal Engineer/Geologist	Consultation & Final Report Preparation (DSA-293)	4 hours	@ \$ 155 /hour	\$ 620
Project Engineer/Geologist	Submittal Review, Project Co-ordination & Report Review	12 hours	@ \$ 133 /hour	\$ 1,596
Subtotal				\$ 2,216
TOTAL ESTIMATED FEES GEOTECHNICAL OBSERVATION & TESTING				\$ 17,496

SCHEDULE OF FEES

HOURLY CHARGES FOR PERSONNEL

Principal Engineer/Geologist/Environmental Scientist	\$ 155
Senior Engineer/Geologist/Environmental Scientist.....	\$ 150
Senior Project Engineer/Geologist/Environmental Scientist	\$ 140
Project Engineer/Geologist/Environmental Scientist.....	\$ 133
Senior Staff Engineer/Geologist/Environmental Scientist.....	\$ 120
Staff Engineer/Geologist/Environmental Scientist.....	\$ 110
GIS Analyst.....	\$ 105
Field Operations Manager	\$ 113
Supervisory Technician	\$ 108
Nondestructive Examination Technician, UT, MT, LP	\$ 103
Senior Field/Laboratory Technician/Inspector	\$ 93
Field/Laboratory Technician	\$ 93
Concrete/Asphalt Batch Plant Inspector.....	\$ 93
Special Inspector (Concrete, Masonry, Steel, Welding, and Fireproofing).....	\$ 93
Technical Illustrator/CAD Operator.....	\$ 80
Information Specialist.....	\$ 80
Data Processing, Technical Editing, or Reproduction.....	\$ 65

OTHER CHARGES

Expert Witness Testimony	\$ 400 /hr
Concrete Coring Equipment (includes one technician)	\$ 145 /hr
PID/FID Usage.....	\$ 120 /day
Anchor load test equipment (Includes technician)	\$ 97 /hr
Hand Auger Equipment	\$ 55 /day
Inclinometer Usage	\$ 32 /hr
Vapor Emission Kits.....	\$ 30 /kit
Level D Personal Protective Equipment (per person per day)	\$ 25 /p/d
Rebar Locator (Pachometer).....	\$ 22 /hr
Nuclear Density Gauge Usage.....	\$ 12 /hr
Field Vehicle Usage.....	\$ 10 /hr
Direct Project Expenses.....	Cost plus 15 %
Laboratory testing, geophysical equipment, and other special equipment provided upon request.	

NOTES (Field Services)

For field and laboratory technicians and special inspectors, regular hourly rates are charged during normal weekday construction hours. Overtime rates at 1.5 times the regular rates will be charged for work performed outside normal construction hours and all day on Saturdays. Rates at twice the regular rates will be charged for all work in excess of 12 hours in one day or on Sundays and holidays. Lead time for any requested service is 24 hours. Field Technician rates are based on a 4-hour minimum. Special inspection rates are based on a 4-hour minimum for the first 4 hours and an 8-hour minimum for hours exceeding 4 hours. Field personnel are charged portal to portal.

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SCHEDULE OF FEES FOR LABORATORY TESTING
Laboratory Test, Test Designation, and Price Per Test

Soils		Concrete	
Atterberg Limits, D 4318, CT 204	\$ 180	Cement Analysis Chemical and Physical C 109	\$ 1,650
California Bearing Ratio (CBR), D 1883	\$ 440	Compression Tests, 6x12 Cylinder, C 39	\$ 30
Chloride and Sulfate Content, CT 417 & CT 422	\$ 135	Concrete Mix Design Review, Job Spec	\$ 140
Consolidation, D 2435, CT 219	\$ 275	Concrete Mix Design, per Trial Batch, 6 cylinder, ACI	\$ 750
Consolidation – Time Rate, D 2435, CT 219	\$ 70	Concrete Cores, Compression (excludes sampling), C 42	\$ 55
Direct Shear – Remolded, D 3080	\$ 290	Drying Shrinkage, C 157	\$ 250
Direct Shear – Undisturbed, D 3080	\$ 255	Flexural Test, C 78	\$ 100
Durability Index, CT 229	\$ 150	Flexural Test, C 293	\$ 55
Expansion Index, D 4829, IBC 18-2	\$ 240	Flexural Test, CT 523	\$ 100
Expansion Potential (Method A), D 4546	\$ 180	Gunite/Shotcrete, Panels, 3 cut cores per panel and test, ACI	\$ 25
Expansion Pressure Method C), D 4546	\$ 180	Jobsite Testing Laboratory	Quote
Geofabric Tensile and Elongation Test, D 4632	\$ 165	Lightweight Concrete Fill, Compression, C 495	\$ 55
Hydraulic Conductivity, D 5084	\$ 300	Petrographic Analysis, C 856	\$ 1,100
Hydrometer Analysis, D 422, CT 203	\$ 190	Restrained Expansion of Shrinkage Compensation	\$ 80
Moisture, Ash, & Organic Matter of Peat/Organic Soils	\$ 110		
Moisture Only, D 2216, CT 228	\$ 30	Reinforcing and Structural Steel	
Moisture and Density, D 2937	\$ 50	Fireproofing Density Test, UBC 7-6	\$ 70
Permeability, CH, D 2434, CT 220	\$ 290	Hardness Test, Rockwell, A-370	\$ 80
pH and Resistivity, CT 643	\$ 160	High Strength Bolt, Nut & Washer Conformance,	
Proctor Density D 1557, D 898, CT 216, &	\$ 260	per assembly, A-325	\$ 205
AASHTO T-180 (Rock corrections add \$80)		Mechanically Spliced Reinforcing Tensile Test, ACI	\$ 95
R-value, D 2844, CT 301	\$ 425	Pre-Stress Strand (7 wire), A 416	\$ 140
Sand Equivalent, D 2419, CT 217	\$ 110	Chemical Analysis, A-36, A-615	\$ 120
Sieve Analysis, D 422, CT 202	\$ 110	Reinforcing Tensile or Bend up to No. 11, A 615 & A 706	
Sieve Analysis, 200 Wash, D 1140, CT 202	\$ 90	No. 8 Rebar	\$ 55
Specific Gravity, D 854	\$ 200	No. 11 Rebar	\$ 75
Triaxial Shear, C.D. D 4767, T 297	\$ 390	No. 18 Rebar	\$ 150
Triaxial Shear, C.U., w/pore pressure, D 4767, T 2297 per pt. ..	\$ 330	Structural Steel Tensile Test: Up to 200,000 lbs.	
Triaxial Shear, C.U., w/pore pressure, D 4767, T 2297 per pt. ..	\$ 190	(machining extra), A 370	\$ 105
Triaxial Shear, U.U., D 2850	\$ 140	Welded Reinforcing Tensile Test: Up to No. 11 bars, ACI	\$ 80
Unconfined Compression, D 2166, T 208	\$ 100	Tensile Test for Fiberwrap (ASTM D-3039	\$ 675
Wax Density, D 1188	\$ 90		
Roofing		Asphalt Concrete	
Built-Up Roofing, cut-out samples, D 2829	\$ 165	Asphalt Mix Design, Caltrans	\$ 2,200
Roofing Materials Analysis, D 2829	\$ 500	Asphalt Mix Design Review, Job Spec	\$ 150
Roofing Tile Absorption (set of 5), UBC 15-5	\$ 190	Extraction, % Asphalt, including Gradation, D 2172, CT 382	\$ 215
Roofing Tile Strength Test (set of 5), UBC 15-5	\$ 190	Film Stripping, CT 302	\$ 100
		Hveem Stability and Unit Weight CTM or ASTM, CT 366	\$ 195
		Marshall Stability, Flow and Unit Weight, T-245	\$ 215
		Maximum Theoretical Unit Weight, D 2041	\$ 120
		Swell CT 305	\$ 165
		Unit Weight sample or core, D 2726, CT 308	\$ 90
Masonry		Aggregates	
Brick Absorption, 24-hour submersion, C 67	\$ 45	Absorption, Coarse, C 127	\$ 35
Brick Absorption, 5-hour boiling, C 67	\$ 55	Absorption, Fine, C 128	\$ 35
Brick Absorption, 7-day, C 67	\$ 60	Clay Lumps and Friable Particles, C 142	\$ 100
Brick Compression Test, C 67	\$ 50	Cleaness Value, CT 227	\$ 160
Brick Efflorescence, C 67	\$ 45	Crushed Particles, CT 205	\$ 140
Brick Modulus of Rupture, C 67	\$ 40	Durability, Coarse, CT 229	\$ 165
Brick Moisture as received, C 67	\$ 35	Durability, Fine, CT 229	\$ 165
Brick Saturation Coefficient, C 67	\$ 50	Los Angeles Abrasion, C 131 or C 535	\$ 180
Concrete Block Compression Test, 8x8x16, C 140	\$ 60	Organic Impurities, C 40	\$ 55
Concrete Block Conformance Package, C 90	\$ 1100	Potential Reactivity of Aggregate (Chemical Method), C 289	\$ 390
Concrete Block Linear Shrinkage, C 426	\$ 120	Mortar making properties of fine aggregate, C 87	\$ 275
Concrete Block Unit Weight and Absorption, C 140	\$ 55	Sand Equivalent, CT 217	\$ 90
Cores, Compression or Shear Bond, CA Code	\$ 85	Sieve Analysis, Coarse Aggregate, C 136	\$ 125
Masonry Grout, 3x3x6 prism compression, C 39	\$ 30	Sieve Analysis, Fine Aggregate (including wash), C 136	\$ 125
Masonry Mortar, 2x4 cylinder compression, C 109	\$ 30	Sodium Sulfate Soundness (per size fraction), C 88	\$ 160
Masonry Prism, half size, compression, C 1019	\$ 180	Specific Gravity, Coarse, C 127	\$ 75
		Specific Gravity, Fine, C 128	\$ 110

Special preparation of standard test specimens will be charged at the technician's hourly rate.

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