CITY OF FONTANA
PROFESSIONAL SERVICES AGREEMENT
SQ-06-DE-23

This Agreement is made and entered into as of October 25, 2022 by and between the City of Fontana, a public agency organized and operating under the laws of the State of California with its principal place of business at 8353 Sierra Avenue, Fontana, California 92335 ("City"), and Ninyo & Moore Geotechnical & Environmental Sciences Consultants, a Corporation with its principal place of business at 5710 Ruffin Road, San Diego, CA 92123 (hereinafter referred to as "Consultant"). City and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

RECITALS

A. City is a public agency of the State of California and is in need of professional services for the following project:

City Hall Renovation Project – Phase I (hereinafter referred to as "the Project").

B. Consultant is duly licensed and has the necessary qualifications to provide such services.

C. The Parties desire by this Agreement to establish the terms for City to retain Consultant to provide the services described herein.

AGREEMENT

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Services.

Consultant shall provide the City with the services described in the Scope of Services attached hereto as Exhibit "A."

2. Compensation.

a. Subject to paragraph 2(b) below, the City shall pay for such services in accordance with the Schedule of Charges set forth in Exhibit "B."

b. In no event shall the total amount paid for services rendered by Consultant under this Agreement exceed the sum of $165,854.00**.** This amount is to cover all printing and related costs, and the City will not pay any additional fees for printing expenses. Periodic payments shall be made within 30 days of receipt of an invoice which includes a detailed description of the work performed. Payments to Consultant for work performed will be made on a monthly billing basis.

3. Additional Work.

If changes in the work seem merited by Consultant or the City, and informal consultations with the other party indicate that a change is warranted, it shall be processed in the following manner: a letter outlining the changes shall be forwarded to the City by Consultant with a statement of estimated changes in fee or time schedule. An amendment to this Agreement shall

be prepared by the City and executed by both Parties before performance of such services, or the City will not be required to pay for the changes in the scope of work. Such amendment shall not render ineffective or invalidate unaffected portions of this Agreement.

4. Maintenance of Records.

Books, documents, papers, accounting records, and other evidence pertaining to costs incurred shall be maintained by Consultant and made available at all reasonable times during the contract period and for four (4) years from the date of final payment under the contract for inspection by City.

5. Term

The term of this Agreement shall be from **October 25, 2022** to **October 25, 2025** unless earlier terminated as provided herein. The Parties may, by mutual, written consent, extend the term of this Agreement if necessary to complete the Project. Consultant shall perform its services in a prompt and timely manner within the term of this Agreement and shall commence performance upon receipt of written notice from the City to proceed ("Notice to Proceed"). The Notice to Proceed shall set forth the date of commencement of work.

6. Delays in Performance.

a. Neither City nor Consultant shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include but are not limited to, abnormal weather conditions; floods; earthquakes; fire; epidemics; war; riots and other civil disturbances; strikes, lockouts, work slowdowns, and other labor disturbances; sabotage or judicial restraint.

b. Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

7. Compliance with Law.

a. Consultant shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local government, including Cal/OSHA requirements.

b. If required, Consultant shall assist the City, as requested, in obtaining and maintaining all permits required of Consultant by federal, state and local regulatory agencies.

c. If applicable, Consultant is responsible for all costs of clean up and/ or removal of hazardous and toxic substances spilled as a result of his or her services or operations performed under this Agreement.

8. Standard of Care

Consultant's services will be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

9. Assignment and Subconsultant

Consultant shall not assign, sublet, or transfer this Agreement or any rights under or interest in this Agreement without the written consent of the City, which may be withheld for any reason. Any attempt to so assign or so transfer without such consent shall be void and without legal effect and shall constitute grounds for termination. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement. Nothing contained herein shall prevent Consultant from employing independent associates, and subconsultants as Consultant may deem appropriate to assist in the performance of services hereunder.

10. Independent Contractor

Consultant is retained as an independent contractor and is not an employee of City. No employee or agent of Consultant shall become an employee of City. The work to be performed shall be in accordance with the work described in this Agreement, subject to such directions and amendments from City as herein provided.

11. Insurance. Consultant shall not commence work for the City until it has provided evidence satisfactory to the City it has secured all insurance required under this section. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

a. Commercial General Liability

(i) The Consultant shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the City.

(ii) Coverage for Commercial General Liability insurance shall be at least as broad as the following:

(1) Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent.

(iii) Commercial General Liability Insurance must include coverage for the following:

(1) Bodily Injury and Property Damage
(2) Personal Injury/Advertising Injury
(3) Premises/Operations Liability
(4) Products/Completed Operations Liability
(5) Aggregate Limits that Apply per Project
(6) Explosion, Collapse and Underground (UCX) exclusion deleted
(7) Contractual Liability with respect to this Agreement
(8) Property Damage

(9) Independent Contractors Coverage

(iv) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(v) The policy shall give City, its officials, officers, employees, agents and City designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(vi) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the City, and provided that such deductibles shall not apply to the City as an additional insured.

b. Automobile Liability

(i) At all times during the performance of the work under this Agreement, the Consultant shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the City.

(ii) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(iii) The policy shall give City, its officials, officers, employees, agents and City designated volunteers additional insured status.

(iv) Subject to written approval by the City, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the City as an additional insured, but not a self-insured retention.

c. Workers' Compensation/Employer's Liability

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) To the extent Consultant has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Consultant shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Consultant shall require all subconsultants to obtain and maintain, for the period required by this Agreement, workers' compensation coverage of the same type and limits as specified in this section.

d. Professional Liability (Errors and Omissions)

At all times during the performance of the work under this Agreement the Consultant shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the City and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

e. Minimum Policy Limits Required

(i) The following insurance limits are required for the Agreement:

	Combined Single Limit
Commercial General Liability	$1,000,000 per occurrence/ $2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	$1,000,000 combined single limit
Employer's Liability	$1,000,000 per accident or disease
Professional Liability	$1,000,000 per claim and aggregate (errors and omissions)

(ii) Defense costs shall be payable in addition to the limits.

(iii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

f. Evidence Required

Prior to execution of the Agreement, the Consultant shall file with the City evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

g. Policy Provisions Required

(i) Consultant shall provide the City at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to

non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the City at least ten (10) days prior to the effective date of cancellation or expiration.

(ii) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Consultant's policy is primary insurance and that any insurance, self-insurance or other coverage maintained by the City or any named insureds shall not be called upon to contribute to any loss.

(iii) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(iv) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to provide a waiver of subrogation in favor of the City, its officials, officers, employees, agents, and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(v) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Consultant from liability in excess of such coverage, nor shall it limit the Consultant's indemnification obligations to the City and shall not preclude the City from taking such other actions available to the City under other provisions of the Agreement or law.

h. Qualifying Insurers

(i) All policies required shall be issued by acceptable insurance companies, as determined by the City, which satisfy the following minimum requirements:

(1) Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

i. Additional Insurance Provisions

(i) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the City, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(ii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by Consultant or City will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, City may cancel this Agreement.

(iii) The City may require the Consultant to provide complete copies of all insurance policies in effect for the duration of the Project.

(iv) Neither the City nor any of its officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

j. Subconsultant Insurance Requirements. Consultant shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the City that they have secured all insurance required under this section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the City as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Consultant, City may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

12. Indemnification.

a. To the fullest extent permitted by law, Consultant shall defend (with counsel of City's choosing), indemnify and hold the City, its officials, officers, employees, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorney's fees and other related costs and expenses. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Consultant, the City, its officials, officers, employees, agents, or volunteers.

b. If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance of "design professional" services (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

13. California Labor Code Requirements.

a. Consultant is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects

("Prevailing Wage Laws"). If the services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. Consultant shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Sections 1771.4 and 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Section 1777.1). The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

b. If the services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

c. This Agreement may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements. Any stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor that affect Consultant's performance of services, including any delay, shall be Consultant's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Consultant caused delay and shall not be compensable by the City. Consultant shall defend, indemnify and hold the City, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Consultant or any subcontractor.

14. Verification of Employment Eligibility.

By executing this Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subconsultants and sub-subconsultants to comply with the same.

15. Reserved.

16. Laws and Venue.

This Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of San Bernardino, State of California.

17 Termination or Abandonment

a. City has the right to terminate or abandon any portion or all of the work under this Agreement by giving ten (10) calendar days written notice to Consultant. In such event, City shall be immediately given title and possession to all original field notes, drawings and specifications, written reports and other documents produced or developed for that portion of the work completed and/or being abandoned. City shall pay Consultant the reasonable value of services rendered for any portion of the work completed prior to termination. If said termination occurs prior to completion of any task for the Project for which a payment request has not been received, the charge for services performed during such task shall be the reasonable value of such services, based on an amount mutually agreed to by City and Consultant of the portion of such task completed but not paid prior to said termination. City shall not be liable for any costs other than the charges or portions thereof which are specified herein. Consultant shall not be entitled to payment for unperformed services, and shall not be entitled to damages or compensation for termination of work.

b. Consultant may terminate its obligation to provide further services under this Agreement upon thirty (30) calendar days' written notice to City only in the event of substantial failure by City to perform in accordance with the terms of this Agreement through no fault of Consultant.

18 Documents. Except as otherwise provided in "Termination or Abandonment," above, all original field notes, written reports, Drawings and Specifications and other documents, produced or developed for the Project shall, upon payment in full for the services described in this Agreement, be furnished to and become the property of the City.

19. Organization

Consultant shall assign Michael Putt, PG, CEG as Project Manager. The Project Manager shall not be removed from the Project or reassigned without the prior written consent of the City.

20. Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described above.

21. Notice

Any notice or instrument required to be given or delivered by this Agreement may be given or delivered by depositing the same in any United States Post Office, certified mail, return receipt requested, postage prepaid, addressed to:

CITY:

City of Fontana

8353 Sierra Avenue

Fontana, California 92335

Attn: Christopher Smethurst, Department of Engineering

CONSULTANT:

Ninyo & Moore Geotechnical and Environmental Sciences Consultants, Inc.

7888 Cherry Avenue, Unit I

Fontana, California 92336

Attn: Michael Putt

and shall be effective upon receipt thereof.

22. Third Party Rights

Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the City and the Consultant.

23. Equal Opportunity Employment.

Consultant represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

24. Entire Agreement

This Agreement, with its exhibits, represents the entire understanding of City and Consultant as to those matters contained herein, and supersedes and cancels any prior or contemporaneous oral or written understanding, promises or representations with respect to those matters covered hereunder. Each Party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. This Agreement may not be modified or altered except in writing signed by both Parties hereto. This is an integrated Agreement.

25. Severability

The unenforceability, invalidity or illegality of any provision(s) of this Agreement shall not render the remaining provisions unenforceable, invalid or illegal.

26. Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each Party to this Agreement. However, Consultant shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of City. Any attempted assignment without such consent shall be invalid and void.

27. Non-Waiver

None of the provisions of this Agreement shall be considered waived by either Party, unless such waiver is specifically specified in writing.

28. Time of Essence

Time is of the essence for each and every provision of this Agreement.

29. City's Right to Employ Other Consultants

City reserves its right to employ other consultants, including engineers, in connection with this Project or other projects.

30. Prohibited Interests

Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no director, official, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

[SIGNATURES ON FOLLOWING PAGE]

CITY OF FONTANA
SIGNATURE PAGE
TRACKING NO. XX-XX-XX-XX

CITY OF FONTANA

By: _____
City Manager

Attest:

By: _____
City Clerk's Office

By: _____
Deputy City Manager

Approved as to form:

_____
Best Best & Krieger LLP
City Attorney

By: _____
Public Works Director/City Engineer

IN COMPLIANCE WITH CONTRACT INSURANCE REQUIREMENTS

By: _____
Human Resources & Risk Management Director

IN COMPLIANCE WITH PURCHASING AND CONTRACT ADMINISTRATION POLICIES/PROCEDURES

_____
Chief Financial Officer

_____
Purchasing Office

VENDOR NAME.

By: _____
Michael Putt
Principal Geologist

By: _____
Kurt Yoshi
Principal Engineer

EXHIBIT A

Scope of Services

CITY OF FONTANA
PURCHASING OFFICE
8353 SIERRA AVENUE
FONTANA, CALIFORNIA 92335

Qualifications to Provide

Geotechnical Services for City Hall Renovation Project - Phase I

City of Fontana (SQ-06-DE-23)

CELEBRATING 35 YEARS

September 9, 2022
Proposal No. P04-03777

Ninyo & Moore
Experience · Quality · Commitment

Ninyo & Moore
Geotechnical & Environmental Sciences Consultants

CELEBRATING 35 YEARS

September 9, 2022
Proposal No. P04-03777

Mr. Sid Lambert
City of Fontana
Purchasing Office
8353 Sierra Avenue
Fontana, California 92335

Subject: Qualifications to Provide Geotechnical Services for
City Hall Renovation Project - Phase I
City of Fontana (SQ-06-DE-23)

Dear Mr. Lambert:

Ninyo & Moore Geotechnical and Environmental Sciences Consultants (Ninyo & Moore), a California corporation, is pleased to submit our qualifications and proposal to provide the City of Fontana (City) with geotechnical and materials testing services for the City Hall Renovation Project - Phase I. We have prepared this proposal based on the City's Request for Qualifications and Proposal SQ-06-DE-23. We fully understand the type of services the City requires, and are ready to meet your needs by making available a dedicated team of professionals who have the requisite experience and resources to successfully complete the project.

Ninyo & Moore has provided similar geotechnical services for projects throughout California and has successfully completed numerous projects for the City since 1995. Having successfully worked on previous contracts with the City, we are very familiar with the City's administrative procedures as well as the technical requirements necessary for this contract, and are confident that the City will find Ninyo & Moore a responsible proposer.

Some of the advantages offered by Ninyo & Moore to the benefit of the City include:

- **RELEVANT EXPERIENCE** – A proven track record of successfully providing similar geotechnical services in and around the City since 1995.
- **AVAILABLE RESOURCES** – As one of the largest geotechnical and environmental consulting firms in southern California, Ninyo & Moore employs more than 550 professionals, including in-house professional staff to perform all the geotechnical services for this contract. Our in-house professional and equipment resources enables Ninyo & Moore to deliver efficient services to our clients.
- **CERTIFIED LABORATORIES AND EQUIPMENT** – Our laboratories have been certified/accredited by various agencies including Caltrans, American Association of State Highway and Transportation Officials (AASHTO), Cement and Concrete Reference Laboratory (CCRL), the Division of the State Architect (DSA), the City of Los Angeles, and many other public agencies.
- **PROXIMITY** – Our geotechnical services will be coordinated from our local Fontana office and certified soils and materials laboratory, located at 7888 Cherry Avenue, Unit I, in Fontana, California. The proximity of our office and laboratory will enable us to provide quick response to requested services and will essentially eliminate delays due to travel time and traffic for our personnel.

Ninyo & Moore is committed to ensuring client satisfaction and meeting the needs of every client on each project. We are excited to continue to provide comprehensive geotechnical services to the City and further build upon our strong relationships with the City staff. We are fully prepared to make every possible commitment needed for successful and timely completion of the City Hall Renovation Project - Phase I.

We look forward to the opportunity to discuss our capabilities with you personally. Ninyo & Moore appreciates the City's favorable consideration of our proposal.

Respectfully submitted,
NINYO & MOORE

Kurt S. Yoshii, PE, GE
Principal Engineer

MLP/AR/emv

Distribution: 1 (via Planet Bids upload)

Table of Contents

Technical Proposal

OUR EXPERIENCE OFFERS BOTH DIVERSITY & DEPTH

Ninyo & Moore has provided geotechnical services for the City of Fontana since 1995. Our qualifications demonstrate our expertise and experience providing the requested scope of services by our teams engineers, geologists, and field technicians.

Ninyo & Moore offers the following benefits:

- √ Qualified Registered Engineers and Geologists
- √ Qualified Inspectors and Field Technicians
- √ Responsive Team
- √ Credentialed Local Laboratory

1. Identification of the Firm

Ninyo & Moore Geotechnical and Environmental Sciences Consultants
7888 Cherry Avenue, Unit I
Fontana, California 92336
909.758.5960
www.ninyoandmoore.com

2. Contact Person

Michael Putt, PG, CEG
Principal Geologist/Project Manager
7888 Cherry Avenue, Unit I
Fontana, California 92336
p. 909.758.5960 ext. 12321
e. mputt@ninyoandmoore.com

3. Subconsultants

Ninyo & Moore has personnel and equipment resources to provide the professional geotechnical services including laboratory and engineering analysis required for this contract in-house, without the need of subconsultants.

60,000 +
projects in California

1,200 +
projects in the County of San Bernardino

85 +
projects for the City of Fontana

4. Work Plan

Based on our review of the Request for Qualifications and Proposals (RFQ/P), the City Hall Renovation Project – Phase I consists of demolishing the existing Fire Administration Building located at 17001 Upland Avenue in Fontana and constructing a new two-story municipal building. The new building will include a first tier parking structure that will accommodate approximately 65 parking spaces and office spaces will be constructed on the second tier. Each level of the new building will have an approximate footprint of 33,000 square feet. We anticipate that additional improvements associated with the project will include new utilities and new pavements adjacent to the new building.

In preparation of this proposal, we have reviewed regional geologic and seismic data for the site vicinity which indicate that the site is underlain by Holocene-age sand and gravel young alluvial fan deposits. The depth to groundwater in the site vicinity is on the order of 500 feet. Due to the relatively deep groundwater, the site is not located within a County of San Bernardino liquefaction hazard zone. No active faults are known to cross the site and the site is not located within a mapped earthquake fault zone.

Based on our understanding of the project and the information presented above, we have prepared the following scope of services. Our geotechnical consulting and materials testing services will be performed in accordance with the 2019 California Building Code, Greenbook Specifications for public works construction, and current standards of practice. Our technical approach for the Phase I geotechnical design services for the project will include a thorough review of background materials, a subsurface exploration program consisting of four soil borings, laboratory testing of soil samples, geotechnical engineering analysis of the data collected, and preparation of a geotechnical evaluation report. In accordance with the RFQ/P, our services for Phase II of the project includes geotechnical and materials testing services as part of our role as the geotechnical engineer of record for the project.

Hollow-Stem Auger

Soil Sampling

Subsurface Exploration

Phase I – Geotechnical and Soils Investigation

Our geotechnical design services will include the following:

Task 1 – Field Exploration Planning

- Project coordination, scheduling of field work, and consultation with the project team to provide geotechnical input.
- Review of readily available geologic and topographic maps, published literature, stereoscopic aerial photographs, previous geotechnical reports prepared for the site, and in-house information.
- Acquisition of a San Bernardino County Environmental Health Services well permit for drilling borings deeper than 20 feet.
- Prepare a site-specific health and safety plan to support our field exploration activities.
- A field reconnaissance to evaluate the surface conditions on-site and to mark the proposed boring locations for clearance with Underground Service Alert. We will provide geophysical utility locating services to clear the proposed boring locations during our reconnaissance and boring markout.

Task 2 – Field Exploration

- Subsurface exploration consisting of the drilling, logging and sampling of four hollow-stem auger borings using truck-mounted drilling equipment. We anticipate that one boring will be drilled to depths of approximately 80 feet and three borings will be drilled to depths of approximately 25 feet. The borings will be drilled to the indicated depths, or refusal, whichever is shallower. The borings will be logged by an engineer or geologist from our firm, and bulk and relatively undisturbed soil samples will be collected at selected intervals for laboratory testing. In accordance with San Bernardino County Environmental Health Services requirements, the borings will be backfilled with grout. Following completion of drilling, borings performed in paved areas will be patched with rapid-set concrete dyed black or asphalt cold patch.
    - Excess soil cuttings from the drilling will be placed in 55-gallon drums and temporarily stored at a secure location on-site. Representative samples of the drummed soils will be collected and sent to a laboratory for analytical testing to characterize the soil for disposal purposes. Following characterization, the drummed soils will be transported to an off-site disposal facility by a licensed waste-hauler. It is anticipated that the soil will be classified as non-hazardous waste.

Task 3 – Laboratory Testing

- Geotechnical laboratory testing of selected soil samples, including tests to evaluate in-situ moisture and density, sieve analyses, Atterberg limits, shear strength, consolidation, R-Value, and soil corrosivity, as appropriate.

Task 4 – Geotechnical Engineering Analysis

- Compilation and geotechnical analysis of field and laboratory data, including analyses to evaluate and provide recommendations pertaining to the following:
    - Suitability of the site for the proposed construction from a geotechnical standpoint.
    - Description of the geology and soils anticipated at the site.
    - Evaluation of the site seismicity and geologic hazards that may impact the project improvements. 2019 California Building Code (CBC) seismic design coefficients will be presented. Seismic hazards to be evaluated will include the potential for fault rupture, soil liquefaction and dynamic settlement potential. The Site Class will be identified in accordance with the 2019 CBC.
    - Evaluation of the depth to groundwater as encountered in our borings and our review of regional data.
    - Excavation characteristics of the on-site materials, including anticipated difficult excavation, caving potential, and oversize material handling.
    - Excavation stability and appropriate shoring systems. Excavations will be evaluated with respect to existing improvements and underground utilities. Shoring design criteria will include allowable lateral earth pressures, allowable passive pressures, and allowable settlement
    - Fill material and compaction requirements, including suitability of the on-site soils for use as structural fill, bedding material, and trench backfill.
    - Geotechnical engineering design parameters for the proposed building foundations and retaining walls (if proposed), including allowable bearing capacity values, lateral earth pressures, and estimated total and differential settlement. Foundation recommendations will be provided for footing foundation, mat foundations, and/or pile foundations, as appropriate.
    - Geotechnical constructability issues and protection of existing facilities.
    - Structural pavement design for asphalt concrete and Portland cement concrete, if new parking is proposed.
    - Evaluation of the corrosion potential of on-site soils.

GEOTECHNICAL ENGINEERS

GEOLOGISTS

FIELD TECHNICIANS

INSPECTORS

Task 5 – Report Preparation

- Preparation of a Draft Geotechnical Evaluation report presenting our findings, conclusions, and recommendations pertaining to the design and construction of the proposed improvements. Our report will be signed by a registered geotechnical engineer and certified engineering geologist.
- Following receipt of review comments from the City's Bridging Plan Architect, we will prepare a Final Geotechnical Evaluation Report that incorporates revisions based on comments received. We will respond to one round of review comments.

Task 6 – Technical Consultation and Meetings

- During our geotechnical design services, we will attend up to three virtual meetings with the City. We will also respond to emails and telephone calls, as needed.

Phase II – Geotechnical Engineer of Record – Materials Sampling And Testing

Remedial Excavation

Masonry Inspection

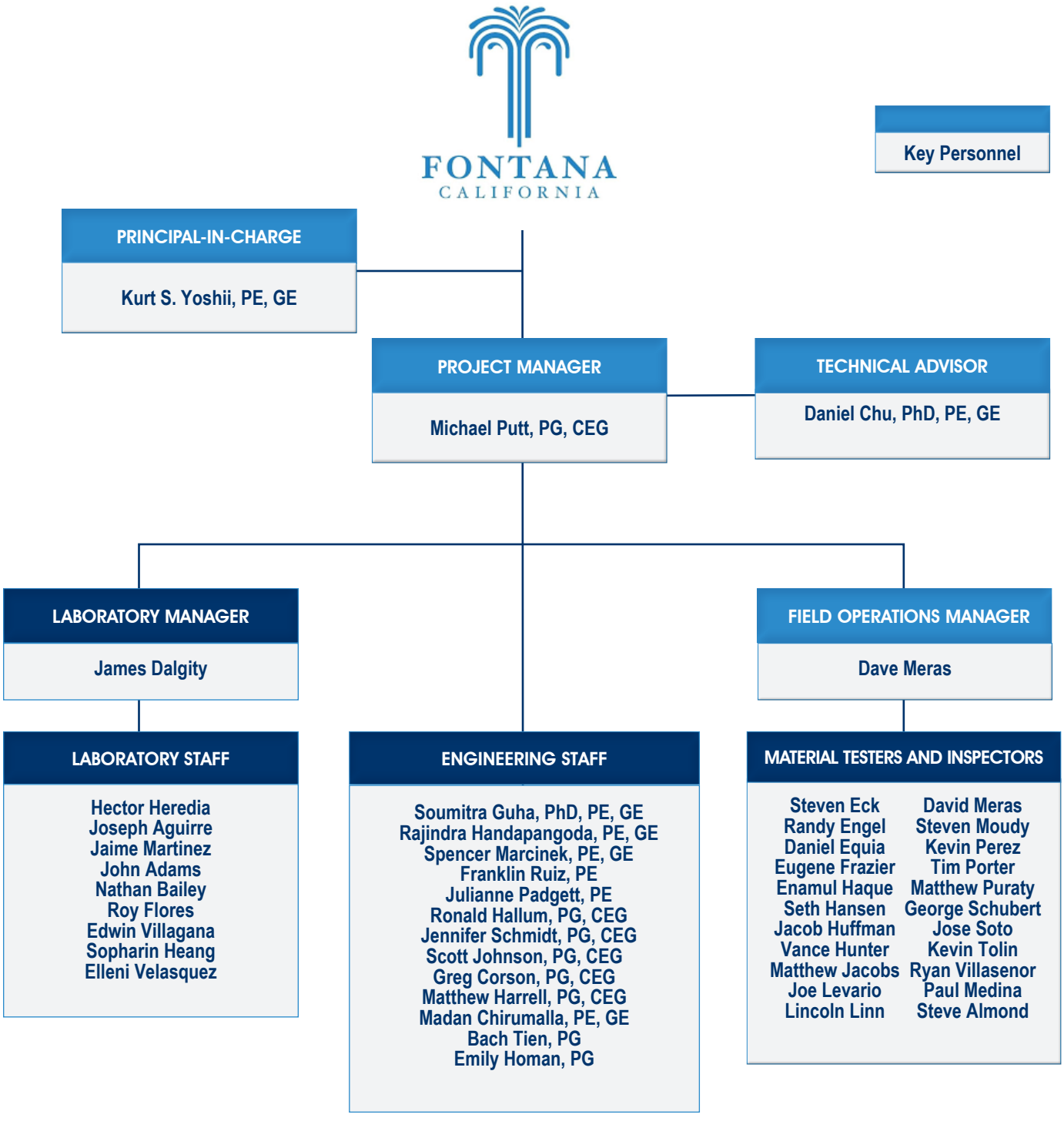
Structural Steel

Our inspection and materials testing and sampling will include the following:

- Project coordination, management and technical support including review of the project plans and specifications, and liner related submittals, work scheduling and distribution of test data.
- Attendance at pre-construction meetings and as-requested field meetings.
- Field Senior Project Engineer/Geologist services for observation of remedial excavation bottoms and to provide supplemental written recommendations as needed.
- Field Technician services for observation, sampling and testing during earthwork including during building pad preparation, trench backfill, structure backfill, subgrade, aggregate base and during AC paving operations. Field density tests will be performed to check the Contractors compaction efforts.
- Field Specialty Inspector services during structural concrete and masonry construction including checking reinforcement steel installation, spacing, size, grade, location, clearances and anchorage. Inspection during concrete placement and consolidation will also be performed.
- Field Specialty Inspector services during structural steel construction onsite including inspection during welding and bolting and non-destructive examination of welds in accordance with the project specifications.
- Field ACI Concrete Technician services to provide observation, sampling and testing during structural concrete and grout placement including checking mix design, elapsed time, temperature, slump and casting a set of cylinders for each batch.
- Laboratory testing including compressive strength testing of concrete, grout, mortar, and masonry prisms, conformance testing of rebar and high strength bolts, and AC maximum density and stability on representative samples obtained in the field.
- Preparation of daily reports and test data sheets to document the items inspected.

5. Organizational Chart

We have carefully selected our project team to ensure that the City receives the dedicated, skilled staff with the required local experience, licenses, and communication skills that are necessary for the successful completion of this project. Because of the resources available at Ninyo & Moore, both in manpower and equipment, as well as the fact that geotechnical, materials, soils inspection and testing services is our area of expertise, we will be able to staff the anticipated projects without the use of subconsultants. Resumes are included in the Appendix and describe the individual qualifications of our key personnel.



6. Schedule of Deadlines

Ninyo & Moore recognizes that a major element of project success is the degree to which schedules and budgets are met. Our Project Manager will be responsible for the overall schedule, quality control, budget control, staff assignments, and client coordination.

Ninyo & Moore is prepared to begin our services upon receipt of your authorization to proceed and will begin acquiring necessary permits for our geotechnical subsurface exploration within one week. We anticipate that our field work will begin approximately two weeks after the receipt of permits and will take approximately 2 days to complete. We anticipate that laboratory testing will be completed approximately two weeks after the field work and our draft report will be issued approximately two weeks after the laboratory testing is completed. Our final geotechnical evaluation report will be completed within approximately one week after we receive the final comments on our draft report.

For the construction related services, these services are typically coordinated on an as-needed, daily basis with the City's point-of-contact or their authorized representative in the field.

7. Staffing Plan

Ninyo & Moore has established effective management control systems, have integrated them for efficient project administration, and have trained staff to respond quickly and efficiently to project situations as they arise in order to meet project deadlines. Having completed geotechnical services on many complex projects within strict time constraints, Ninyo & Moore has developed flexible management systems which allow project managers to draw on experienced technical and administrative personnel throughout the company. Additionally, field staff including technicians and inspectors, are made available from branch offices to meet increased staffing needs. Although not anticipated, if the project requires additional staff, we can utilize our staff from our Irvine or San Diego offices to accommodate peak construction periods. Contract needs are met by assigning appropriate resources (experienced personnel and equipment) as needed to meet specific project requirements. Ninyo & Moore's project manager is available throughout the duration of all project assignments. Twenty-four-hours-a-day, seven-days-a-week, point-of-contact telephone/cell phone numbers are provided to the designated project manager/representative(s). Client requests are addressed immediately and emergency response to the project requiring it is provided throughout the duration of the project. If required, we can accelerate project scheduling without compromising quality by adding additional professional staff and working extended hours and weekends.

Due to the size of Ninyo & Moore, we do not intend to utilize subconsultants for this contract. Therefore, 100% of the work performed on this contract will be provided by our firm, a California corporation with over 36 years of expertise and experience with local laws, ordinances, regulations, policies, requirements, and permitting. Ninyo & Moore is proposing the key personnel on the following page for this project.

8. Proposed Team

We have carefully selected our project team to ensure that the City receives the dedicated, skilled staff with the required local experience, licenses, and communication skills that are necessary for the successful completion of the City project.

Principal-in-Charge

31+ Years Geotechnical Engineering Experience

Mr. Kurt Yoshii, PE, GE, ENV SP will serve as the **Principal-in-Charge** for this contract. Mr. Yoshii graduated from the University of California at Berkeley with a degree in Civil Engineering. He has over 31 years of experience and for the past 27 years, Mr. Yoshii has been employed at Ninyo & Moore where he has personally performed various aspects of geotechnical engineering, including geotechnical investigation reports for various public works projects. He has personally managed the first on-call contracts Ninyo & Moore was awarded by the City of Fontana and is very familiar with both the administrative and technical requirements of the City. With this experience, he will be responsible for ensuring that Ninyo & Moore's team's performance meets or exceeds the City's expectations.

Project Manager

26+ Years Engineering Geology Experience

Mr. Michael Putt, PG, CEG will serve as our **Project Manager** for this contract. Mr. Putt graduated from California State University Fullerton with a Bachelor's Degree in Geology. Mr. Putt has over 26 years of experience in providing engineering geology consultation, third-party geotechnical review services, as well as project management experience for on-call materials testing and inspection services contracts in Southern California. He has extensive experience on a variety of project types, including roads, highways, bridges, jack and bore tunneled undercrossings, hillside and flat-land mass grading projects, pump stations, pipelines, water and wastewater treatment plants, large- and small-scale stormwater infiltration projects and forensic investigations. He conducts geologic and geotechnical field evaluations, including detailed logging of large- and small-diameter borings and trenches, and geologic evaluation/mapping.

Technical Advisor

40+ Years Geotechnical Engineering Experience

Dr. Daniel Chu, PE, GE will serve as our **Geotechnical Engineering Technical Advisor**. Dr. Chu earned his Ph.D. in geotechnical engineering from the University of California at Los Angeles, and is a licensed Civil and Geotechnical Engineer with over 40 years' experience. He has provided geotechnical engineering and third-party review services for many city and county agencies. Dr. Chu is responsible for the quality of engineering, training of staff, and engineering analysis. He has expertise in soil mechanics, dynamic soil behavior, seismic hazard risk assessment, static and dynamic earth loading, liquefaction, design of deep and shallow foundations, shoring systems, slope stability, erosion control, and pavement design. Dr. Chu provides technical oversight during our geotechnical evaluations, exploration/sampling protocol, analysis of laboratory test results, direction of engineering tasks, review of calculations, and report preparation.

Field Operations Manager

26+ Years Construction/ Materials Testing and Inspection Experience

Dr. Dave Meras will serve as our **Field Operations Manager**. Mr. Meras will coordinate the day-to-day activities of our field and laboratory staff for this contract. He oversees and assists the lead technicians with scheduling additional personnel and equipment as it becomes necessary. He oversees field testing of concrete and asphalt concrete, inspection of asphalt and concrete batch plants, geotechnical laboratory testing, quality control for all laboratory procedures, including fulfilling requirements for ASTM, AASHTO, CALTRANS, ACI, and UBC Standards. He has effectively coordinated field operations for Ninyo & Moore on many large public works projects including the cities of Fontana, Moreno Valley, Corona, Ontario, and South Pasadena, the Riverside County Transportation Commission, and Inland Empire Utilities Agency.

9. Key Personnel

Key team members and their classifications are listed below. Ninyo & Moore understands key personnel identified in the original technical/cost proposal shall not change (be different than) in the City's executed contract.

Team Member	Classification	Registrations/ Certifications	Years Experience/ Years with N&M
Kurt S. Yoshii, PE, GE	Principal-in-Charge	Registered Geotechnical Engineer, GE 2508 (CA) Registered Civil Engineer, CE 54759 (CA) Professional Engineer PE 14274 (NV) Professional Engineer PE 3791862202 (UT) Professional Engineer PE 48007 (CO) 40-Hour OSHA HAZWOPER Certification with Annual Updates (CFR 1910.120)	31/27
Michael Putt, PG, CEG	Project Manager	Professional Geologist, PG 7581 (CA) Certified Engineering Geologist, CEG 2341 (CA) Applied Rock Slope Engineering Short Course Registered Civil Engineer, CE 50994 (CA) Radiation Nuclear Gauge	26/14
Daniel Chu, PHD, PE, GE	Technical Advisor	Registered Civil Engineer, CA, PE 37991 (CA) Registered Geotechnical Engineer, CA, GE 2096 (CA)	40/30
Dave Meras	Field Operations Manager	AWS Welding Inspector ICC Fireproofing Special Inspector ICC Soils Special Inspector ICC Structural Steel & Bolting Inspector ICC Structural Welding Inspector Radiation (Nuclear Gauge) User Safety ACI Field Testing Technician Grade I Caltrans TL-0111	26/16

Experience

Over 36 years of providing geotechnical, environmental, and materials testing and special inspection services from 16 locations across the Western U.S.

Quality

We strive to continually improve the caliber, efficiency and cost effectiveness of our services and to meet or exceed the standards of our industry.

Commitment

Our primary goal is the complete and total satisfaction of our clients!

10. Staff Resumes

As requested, staff resumes are being included in the Appendix and describe the individual qualifications of our key personnel.

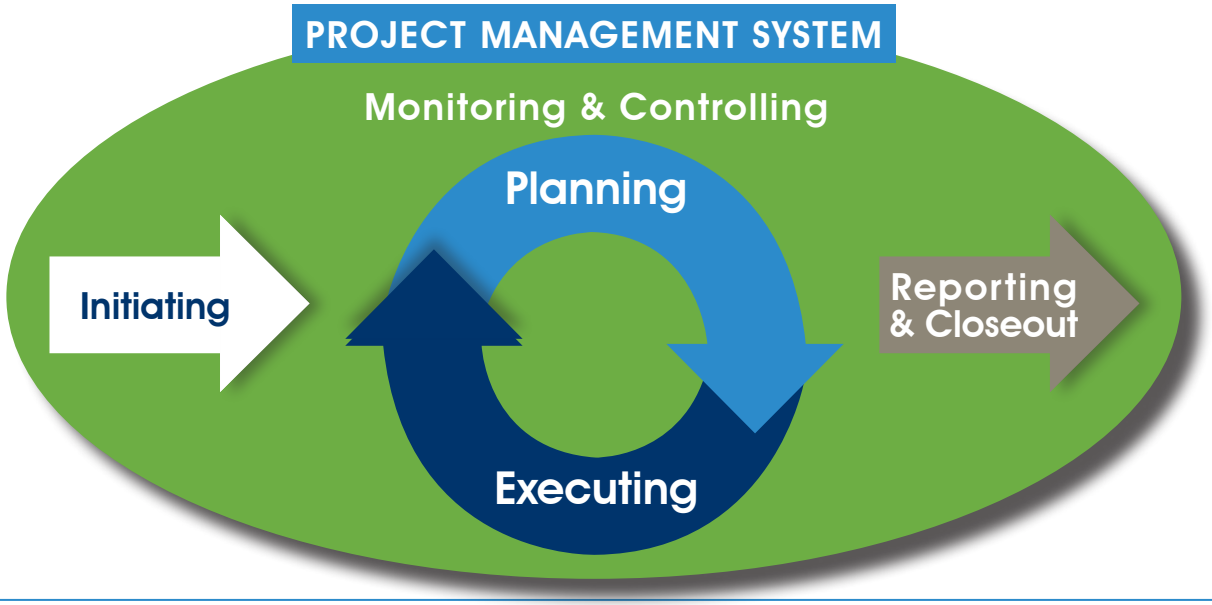
11. Project Manager

As Project Manager, Mr. Michael Putt will be the direct contact for the City and the individual authorized to negotiate the contract on behalf of Ninyo & Moore. Mr. Putt and staff will respond to City requests by return phone call/email/fax; within a day and typically much quicker. Mr. Putt understands the City requirements and will disseminate the requirements and scope of work to the project team. He will be answerable to the City on all contracted services. In-house communication has been streamlined with our local and wide-area computer networks to facilitate sharing of electronic files and documents such as reports, engineering analysis using geotechnical software, CAD, Microsoft project schedules, and personnel schedules and meeting coordination using Microsoft Outlook. Additionally, the project team assembles regularly to discuss project progress, issues, findings, and results.

Mr. Putt will track project progress, schedule and budget, and can report on a weekly basis to the City representative. The weekly reports can be emailed (or by other means upon request). Mr. Putt will also coordinate geotechnical related questions from other City consultants, such as the Civil Engineer, Structural Engineer, Architect, Corrosion Engineer, Environmental Engineer, and surveyors. The City will be copied and updated on all communication with other project consultants. Ninyo & Moore staff is available to attend City meetings involving other project consultants.

In his role of Project Manager, Mr. Putt will:

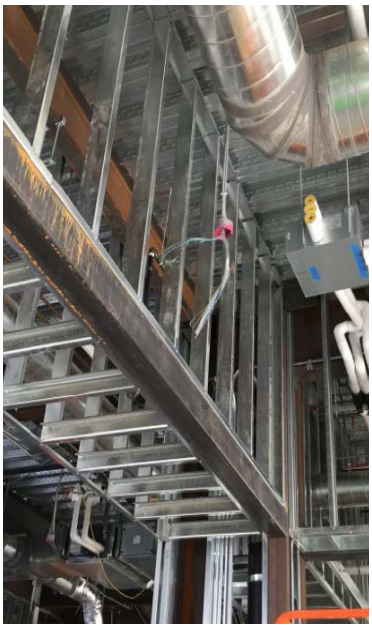
- Act as the liaison with the City's Project Manager and Inspector.
- Staff the project with qualified, experienced personnel who are familiar with the main elements of each assignment and have an understanding of the technology required to attain the project goals.
- Assure that key personnel are available as planned.
- Organize, direct and oversee project tasks and provide QA/QC oversight.
- Establish and enforce work element milestones.
- Establish and periodically review and monitor budgets, and implement cost control procedures.
- Prepare cost and performance reports, and manage funds for labor and materials procurement, as necessary.
- Assure compliance with regulatory agency protocol.
- Assure that work is completed within the required time-frame and approved cost.



12. References

As requested, below are three references and their pertinent contact information.

Company/Agency Name	**City of Yorba Linda**
Reference Name & Title	Mr. Rick Yee
Address	4845 Casa Loma Avenue Yorba Linda, California 92886
Phone Number(s)	(714) 961-7171
Email Address	ryee@yorba-linda.org
Work Performed	Ninyo & Moore provided geotechnical and materials testing and deputy inspection services during construction of the Yorba Linda Public Library & Arts Center. The project consisted of construction of a of a new 2-story, 45,000 square feet (SF) public library building and a new single-story 14,000 SF community arts center building, as well as a new parking lot and various site improvements. The new buildings structurally consist concrete spread footings, grade beams and slab on grade, structural steel framing including moment frames, metal stud walls, masonry walls, concrete over metal deck, and steel stairs.



Company/Agency Name	**University of California, Irvine**
Reference Name & Title	Mr. Eddie Nunez
Address	101 Academy, Suite 200 Irvine, California 92697
Phone Number(s)	(949) 923-5437
Email Address	enunez@uci.edu
Work Performed	Ninyo & Moore was retained to provide geotechnical, materials testing, and deputy inspection services for the construction of the University of California Irvine (UCI) Middle Earth Housing Expansion Project in Irvine, California.

Company/Agency Name	**City of Los Angeles**
Reference Name & Title	Mr. Patrick Schmidt
Address	1149 S. Broadway, Suite 120 Los Angeles, California 90015
Phone Number(s)	(213) 847-0535
Email Address	patrick.schmidt@lacity.org
Work Performed	Ninyo & Moore has been retained to provide on-call geotechnical and environmental services during the various new construction and reconstruction type projects located throughout Los Angeles, California.

Appendix A

Resumes of Key Personnel

Kurt S. Yoshii, PE, GE

Principal-in-Charge

EDUCATION

MBA, 1998, University of California Davis

M.S., Geotechnical Engineering, 1989, University of California Berkeley

B.S., Civil Engineering, 1987, University of California Berkeley

REGISTRATIONS/ CERTIFICATIONS

PE 49665 (California)

GE 2509 (California)

Nuclear Gauge Operator Certification

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

As a Principal Engineer for Ninyo & Moore, Mr. Saiki coordinates and conducts geotechnical evaluations for residential, commercial, and public facilities, including highways, railroads, airports, pipelines, public and private buildings, and bridges; performs slope stability analyses, flexible and rigid pavement design, and underground pipeline design; prepares and reviews geotechnical reports; and provides geotechnical design parameters and recommendations for shallow and deep foundations, retaining structures, in-situ ground remediation and earthwork; reviews laboratory results, project plans and specifications; provides supervision and technical support to staff-level engineers and geologists; performs project administration and management; and provides forensic evaluation of distressed pavement, residential and commercial structures.

EXPERIENCE

City of Fontana, On-Call Testing and Inspection Services, Fontana, California: Principal Engineer retained to provide construction and inspection services for various projects for the City of Fontana including sewer construction, channel improvements, roadway rehabilitation and construction, new building construction, surface drainage evaluations, and third party geotechnical reviews.

City of Yorba Linda, Library and Arts Center Project, Yorba Linda, California: Principl Engineer retained to provide geotechnical and materials testing and deputy inspection services during construction of the Yorba Linda Public Library & Arts Center project located in Yorba Linda, California. The project consisted of construction of a of a new 2-story, 45,000 square feet (SF) public library building and a new single-story 14,000 SF community arts center building, as well as a new parking lot and various site improvements. The new buildings structurally consist concrete spread footings, grade beams and slab on grade, structural steel framing including moment frames, metal stud walls, masonry walls, concrete over metal deck, and steel stairs. Other structural improvements included a masonry trash enclosure, reinforced masonry and concrete retaining walls, and steel framed trellis. Other site improvements include a parking lot, new utilities, a bio-detention system, light poles and concrete pavement. Ninyo & Moore's project management staff maintained a positive working relationship with the project construction management and City of Yorba Linda engineering staff.

UCI Middle Earth Housing Expansion Project, Irvine, California: Served as Principal Engineer to provide geotechnical, materials testing, and deputy inspection services for the construction of the University of California Irvine (UCI) Middle Earth Housing Expansion Project in Irvine, California. This design/build project included construction of two seven-level dormitory towers (North and South Towers) established at ground level with one basement level planned near the eastern portion of the building footprint. Level 1 will be utilized as a dining area and loading dock, and the basement will be used for mechanical, electrical, and plumbing utilities. Additional site improvements included outdoor volleyball and basketball athletic courts, outdoor seating, and vegetation, including trees and landscaped grass area, and hardscape, including asphalt and concrete pavements. Earthwork for the project included overexcavation and recompaction to replace the existing undocumented fill materials beneath the building footprints and to provide compacted soils beneath shallow spread footings and concrete flatwork.

Kurt S. Yoshii, PE, GE

Principal-in-Charge

City of Los Angeles, On-Call Geotechnical and Environmental Consulting Services: Principal Engineer for the on-call geotechnical and environmental services contract with the City of Los Angeles Bureau of Engineering, Geotechnical Division. Our services include geotechnical design, environmental hazardous materials evaluation, and geotechnical construction support services.

Fire Station No. 78, Fontana, California: Served as Principal Engineer for geotechnical consulting services relative to the design of a proposed fire station to be located on a vacant site along Citrus Avenue, about 1,000 feet north of Baseline Road, in the city of Fontana, California. Our services included a review of geologic and historical background information; subsurface exploration consisting of drilling, sampling, and logging of three exploratory borings; and laboratory testing to evaluate the characteristics of the on-site soils.

Community Development Administration Building & Parking Structure, Fontana, California: Principal Engineer retained for the construction of the new Community Development Administration Building (CDAB) and Parking Structure in Fontana, California. Ninyo & Moore previously performed the preliminary geotechnical evaluation for the CDAB. Services included coordination and review of our previous work, including background data and available plans and details regarding the proposed construction; site reconnaissance to observe and document surficial conditions and to mark the proposed boring locations for utility clearance; subsurface evaluation; laboratory testing of soil samples obtained from the exploratory borings; compilation and geotechnical analysis of the field and laboratory data; and preparation of a report to present our findings, conclusions, and geotechnical recommendations pertaining to the design and construction of the proposed building and parking structure foundations.

UPS Main Sort Building Expansion, Ontario, CA: Project Engineer retained to provide geotechnical consulting services for the design and during construction of the Main Sort Facility Expansion Project, located in Ontario, California. The expansion project included construction of an approximately 175,000 square foot addition to the existing approximately 487,000 square foot Main Sort Building. Field and laboratory data was analyzed in order to provide geotechnical recommendations and design parameters for the proposed expansion project. Mr. Yoshii provided recommendations for earthwork and grading operations, including recommendations for overexcavation, fill placement and compaction, building pad preparation, temporary excavation stability, utility construction, foundations, corrosivity, concrete type, surface drainage, and pavement design. The recommendations from our reports were incorporated in the plans for the building expansion and associated facilities construction.

Riverside County Transportation Commission (RCTC) On-Call Geotechnical, Environmental, and Materials Testing Services, Riverside County, California: Principal-in-Charge for the on-call geotechnical, environmental, and materials testing and inspection services contract with RCTC to support various design and construction projects including geotechnical design services for construction of new Metrolink railroad stations, bridge foundations, highway interchange improvements, parking lot and roadway paving recommendations. His responsibilities included contract management and daily coordination of field technicians, special deputy inspectors, and laboratory testing services, and submittal of the field and laboratory reports, as well as overall management of the soils and materials testing and inspection contract.

County of San Bernardino/Real Estate Services Department/On-Call Professional Services / Geotechnical Consulting / Materials Testing and Inspection Services: Principal-in-Charge providing as-needed geotechnical and materials testing and inspection services for the County of San Bernardino Real Estate Services Department. Services included on-call support of a variety of construction projects throughout the County of San Bernardino including the Forensic 2Y65 Crime Lab, the Fontana Crisis Stabilization Unit Facility 7N25, the Morongo Crisis Residential Treatment Facility 7N20, County Government Center Phase 1B site beautification 10.10.0017, and several other projects. Services included geotechnical design, geotechnical observation, materials testing and inspection services for new construction, modernizations, parking lots, shade structures, and site work. Ninyo & Moore's scope during construction consisted of soils, concrete, masonry, welding, and pull/torque testing. Our laboratory services included proctor density tests, sand equivalent, r-value, compression testing of concrete, grout, and mortar, and moisture vapor emissions testing.

Michael Putt, PG, CEG

Project Manager

EDUCATION

B.S., Geology, 1997, California State University, Fullerton

Applied Rock Slope Engineering Short Course, 2006, Association of Engineering Geologists, California

REGISTRATIONS/ CERTIFICATIONS

PG 7581 (California)

CEG 2341 (California)

Radiological Safety and Gauge Use Certification, 1997

PROFESSIONAL AFFILIATIONS

South Coast Geological Society

Mr. Putt is a Principal Geologist with Ninyo & Moore and has extensive experience in providing engineering geology consultation in Southern California. Mr. Putt has extensive experience on a variety of project types, including highways, bridges, bore and jack tunneled undercrossings, hillside and flat-land mass grading projects for residential, commercial, and industrial developments, pipelines, and forensic investigations. Mr. Putt performs project administration and management, prepares and reviews geologic and geotechnical reports and provides third party review services for geotechnical reports. He conducts geologic and geotechnical field evaluations, including detailed logging of large- and small-diameter borings and trenches, and geologic evaluation/mapping. Projects have included fault hazard evaluations, landslide studies, slope stability analysis, seismic refraction studies, geologic reconnaissance studies, forensic evaluations, and construction and inspection services.

EXPERIENCE

California Department of Corrections and Rehabilitation 50 Bed Mental Health Crisis Facility, Chino, California: Principal Geologist provided geotechnical consulting services for the California Department of Corrections and Rehabilitation 50 Bed Mental Health Crisis Facility project located at the California Institute for Men in Chino, California. The project involved the design and construction of a new two-story, 47,550 square-foot building, paved walkways, and paved parking lots. The new Mental Health Crisis building will accommodate housing, administration, treatment, and custody services that will be needed to support 50 inmates/patients. Services included attendance at a project kickoff teleconference meeting, preparation and submittal of a project work plan and schedule, project coordination, background review, acquisition of security clearances for project personnel, a site reconnaissance meeting and markout of boring locations, subsurface evaluation, laboratory testing of collected soil samples, compilation and analysis of the collected data, and preparation of a geotechnical evaluation report.

University of California Irvine, Business Unit 2 Building, Irvine, California: Principal Geologist retained for a preliminary geotechnical evaluation for the University of California, Irvine, School of Business, Unit 2 Building project located in Irvine, California. The project involved construction of a new five-level building, with the first level being partially below grade. Services included review of available geologic maps, published literature, aerial imagery, and in-house information; review of seismic data, including fault hazard maps, seismic hazards maps, and other readily available data regarding geologic and seismic hazards within the project area; performance of a geotechnical site reconnaissance to observe the general surface conditions on site, and coordinate with Underground Service Alert for underground utility clearance; performance of a subsurface exploration; performance of laboratory testing; and preparation of a geotechnical data report presenting a summary of geologic hazards, our boring logs, and laboratory test data.

City of Corona On-Call Professional Services, Corona, California: Principal Geologist provided on-call geotechnical engineering consulting services for various projects in the City of Corona. Services included geotechnical observation and materials testing services for various construction projects including pavement rehabilitation and sewer main improvement projects. Specific projects included Corona 6th Street Pavement Rehabilitation, Via Blario Sewer project. Services included

Michael Putt, PG, CEG
Project Manager

geotechnical observation, sampling, testing, and documentation during subgrade preparation, concrete bus pad construction, aggregate base and asphalt concrete placement, performance of batch plant inspections, laboratory testing including testing of concrete compressive strength, distribution of test data, and preparation of a final compaction report.

City of Jurupa Valley, Third Party Reviews: Served as Project Manager for the two third-party geotechnical reviews for residential and commercial development project. The geotechnical review of Environmental Impact Reports are based on the current California Environmental Quality Act guidelines for Geology and Soils. The review of design-level reports are based on the guidelines presented in the 2013 California Building Code (CBC), the County of Riverside Technical Guidelines for Review of Geotechnical and Geologic Reports, and the current standards of practice.

Camp Kilpatrick Replacement Project, Malibu, California: Principal Geologist retained during construction of the Camp Kilpatrick Replacement project located in Malibu, California. The design/build project consisted of construction of a new youth camp that included construction of four new cottages totaling approximately 26,700 square feet, an approximately 7,950-square-foot Support Center building, an approximately 4,000-square-foot maintenance/warehouse building, and an approximately 3,700-square-foot gymnasium/chapel building. The new structures and a new 108-space parking lot were to be constructed within the area of the demolished buildings and the center open space area between the buildings. Geotechnical services included evaluating the soil and geologic conditions of the site in order to develop geotechnical recommendations for design and construction of the project, as well as percolation testing to evaluate the subsurface suitability of the site for stormwater infiltration.

La Pata Avenue Gap Closure Project, Orange County, California: Serving as Project Manager providing geotechnical consulting services during construction of the La Pata Avenue Gap Closure Project in Orange County, California, as part of the Hill Int. construction management team for the County of Orange. The project involves the widening of 1.8 miles of La Pata Avenue in San Juan Capistrano and extending the roadway 2 miles to Avenida La Pata in San Clemente which will provide an essential link in the local roadway network. Mr. Putt responsibilities as project manager and certified engineering geologist of record include project coordination and scheduling, oversight of field technicians, geologists, and engineers, attendance at project team meetings, and preparation of project correspondence, reports, invoices and budget management.

Daniel Chu, PhD, PE, GE

Technical Advisor - Geotechnical Engineering

EDUCATION

Ph.D., Geotechnical Engineering, 2006, University of California, Los Angeles

M.S., Geotechnical Engineering, 1981, Utah State University

B.S., Civil Engineering, 1978, National Central University, Chungli, Taiwan

REGISTRATIONS/ CERTIFICATIONS

RCE 37991 (California)

GE 2096 (California

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
California Geotechnical Engineers Association

As Chief Geotechnical Engineer for Ninyo & Moore, Dr. Chu is responsible for the quality of engineering, technical approach, training of staff, and engineering assignments for the Irvine office. Dr. Chu has extensive experience providing geotechnical engineering for reservoirs, water treatment plants, pump stations, pipelines, tunnels, bridge structures, highways, and commercial developments. Dr. Chu has expertise in soil mechanics, dynamic soil behavior, seismic hazard risk assessment, static and dynamic earth loading, liquefaction, design of deep and shallow foundations, shoring systems, slope stability, erosion control, and pavement design. Dr. Chu has direct project involvement including evaluation of exploration/sampling protocol, analysis of laboratory test results, direction of engineering tasks, review of calculations, and report preparation.

EXPERIENCE

Community Development Administration Building & Parking Structure, Fontana, California: Technical Advisor and Chief Geotechnical Engineer retained for the construction of the new Community Development Administration Building (CDAB) and Parking Structure in Fontana, California. Ninyo & Moore previously performed the preliminary geotechnical evaluation for the CDAB. Services included coordination and review of our previous work, including background data and available plans and details regarding the proposed construction; site reconnaissance to observe and document surficial conditions and to mark the proposed boring locations for utility clearance; subsurface evaluation; laboratory testing of soil samples obtained from the exploratory borings; compilation and geotechnical analysis of the field and laboratory data; and preparation of a report to present our findings, conclusions, and geotechnical recommendations pertaining to the design and construction of the proposed building and parking structure foundations.

Fire Station Number 22, Irvine, California: Served as Technical Reviewer during geotechnical services for the proposed Orange County Temporary Fire Station No. 22. Services included review of geologic and other background documentation; performance of a subsurface evaluation; and laboratory testing. The subsurface and laboratory data were compiled and presented in a written report with recommendations.

Silverado Canyon Fire Station, Orange County, California: Served as Technical Reviewer providing geotechnical design recommendations for the proposed construction of the Silverado Canyon Fire Station. Service include review of geologic background materials, site reconnaissance to map the surficial geologic conditions, and the excavation of four exploratory borings to collect soil samples for laboratory testing. Recommendations relative to earthwork, foundation design, and pavement design were presented.

Rancho Santiago Community College District, New Classroom Buildings, Centennial Education Center, : Served as Technical Advisor for the geotechnical evaluation for the new classrooms at the Centennial Education Center in Santa Ana, California. The project involved construction of a two-story permanent classroom building and three modular classrooms. The two-story classroom included a footprint of approximately 10,500 square feet and was constructed as a concrete masonry unit (CMU) structure with slab-on-grade floors. The proposed modular buildings were

Daniel Chu, PhD, PE, GE

Technical Advisor - Geotechnical Engineering

single-story structures with a total of approximately 2,900 square feet replaced three existing modular buildings. Subsurface evaluation consisted of drilling, logging, and sampling of four small-diameter borings. Remedial grading recommendations included removal and recompaction of the upper approximately 10 feet of soil below the finish grade. Recommendations for the subject project included building pad preparation, temporary excavation and shoring, seismic design considerations, shallow foundations and slab-on-grade, utility bedding and trench backfill, pavement design and corrosion potential of the soils.

Westrux International Facility, Santa Fe Springs, California: Served as Project Engineer providing engineering analyses and report review for the proposed commercial building addition and parking lot at the Westrux International Facility. Services included review of pertinent information; review of background documents, geologic maps and stereoscopic aerial photographs; discussion of the project with the design team; performance of a subsurface evaluation; laboratory testing; data compilation and geotechnical analyses including settlement, bearing capacity, corrosion potential, liquefaction, and preliminary pavement design.

Omnitrans East Valley Maintenance Facility, San Bernardino, California: Served as Project Engineer providing engineering analyses and report review for the proposed bus maintenance building. Services included review of background documentation, geologic maps, and stereoscopic aerial photographs; performance of a site reconnaissance; performance of a subsurface evaluation consisting of nine small-diameter borings; laboratory testing; data compilation and geotechnical analyses including settlement, bearing capacity, corrosion potential, liquefaction, and preliminary pavement design.

Culver Studios Building J and Parking Structure, Culver City, California: Technical Advisor and Chief Geotechnical Engineer for a multi-phased expansion of the The Culver Studios television and movie production lot located in Culver City, California. The Comprehensive Plan involved subsurface exploration and geotechnical design for a new proposed four-story parking structure, new four-story office buildings, and a new maintenance building totaling more than 400,000 square feet (SF). Previous services included geotechnical exploration and design for previous planned expansions of the facility involving new office buildings, and new above grade and underground parking structures on the lot totaling more than 500,000 SF. Services included subsurface exploration, installation of a 100-foot-deep monitoring well, geologic observation and testing, and recommendations for foundation design for footing, mat and pile options, seismic design criteria, dewatering, temporary excavations, shoring systems and lateral earth pressures.

David A. Meras

Field Operations Manager

REGISTRATIONS/ CERTIFICATIONS

ACI Field Testing Technician Grade I, No. 00992784

AWS Welding Inspector, No. 16081091

ICC Fireproofing Special Inspector

ICC Soils Special Inspector, No. 8168055-EC

ICC Structural Steel & Bolting Inspector, No. 8168055-S1

ICC Structural Welding Inspector, No. 8168055-S2

Radiation (Nuclear Gauge) User Safety

Caltrans TL-0111 (125.0, 216.0, 231.0, 504.0, 518.0, 523.1, 524.0, 533.0, 539.0, 540.0, 557.0)

USDOT, HAZMAT 49CFR 172, Subpart H

As a Special Inspector/Technician for Ninyo & Moore, Mr. Meras is responsible for performing quality control and quality assurance testing of soil, aggregate, asphalt, and concrete materials in accordance with applicable ASTM, AASHTO, ACI, and CALTRANS standards. As a senior technician, Mr. Meras has extensive experience providing both field and laboratory testing of soils and construction materials and maintains his current soils and materials testing certifications from ACI and Caltrans, as well as his nuclear gauge certification. He provides geotechnical observation and testing services during earthwork operations, including mass grading operations, trench and wall backfill, and roadway and building pad subgrade preparation. Mr. Meras also has extensive experience in the requirements and specifications in Greenbook for public works construction projects, as well as the requirements of Caltrans for testing frequencies, test methods, and record keeping as described in Caltrans Standard Specifications, Standard Special Provisions, and the Caltrans Construction Manual. He maintains a current Caltrans TL-0111 certification for both field and laboratory testing.

EXPERIENCE

City of Fontana, Fontana Library and Resource Technology Center, Fontana, California: Field Operations Manager retained to provide soils, materials testing, and inspection services for the construction of the Fontana Library and Resource Technology Center. Improvements consisted of constructing a new approximately 93,000 square foot, 2-story building, over a parking garage with a capacity of 187 spaces. Construction consisted of reinforced concrete spread footings, grade beams, slab on grade, cast-in-place concrete and CMU walls, structural steel framing with metal decking, and open web steel trusses.

UCI Middle Earth Housing Expansion Project, Irvine, California: Served as Field Operations Manager to provide deputy inspection services for the construction of the University of California Irvine (UCI) Middle Earth Housing Expansion Project in Irvine, California. This design/build project included construction of two seven-level dormitory towers (North and South Towers) established at ground level with one basement level planned near the eastern portion of the building footprint. Level 1 will be utilized as a dining area and loading dock, and the basement will be used for mechanical, electrical, and plumbing utilities. Additional site improvements included outdoor volleyball and basketball athletic courts, outdoor seating, and vegetation, including trees and landscaped grass area, and hardscape, including asphalt and concrete pavements. Earthwork for the project included overexcavation and recompaction to replace the existing undocumented fill materials beneath the building footprints and to provide compacted soils beneath shallow spread footings and concrete flatwork.

City of Los Angeles, On-Call Geotechnical and Environmental Consulting Services: Special Inspector for the on-call geotechnical and environmental services contract with the City of Los Angeles Bureau of Engineering, Geotechnical Division. Our services include geotechnical design, environmental hazardous materials evaluation, and geotechnical construction support services.

Yorba Linda Town Center Parking Structure, Yorba Linda, California: Field Operations Manager rovided deputy inspection and materials testing services during construction of the Yorba Linda Town Center – Parking Structure project located

in Yorba Linda, California. The project consisted of a new 4 level parking structure. Services included deputy inspections by International Code Council (ICC) certified inspectors and materials testing services by American Concrete Institute (ACI) certified materials testers. Deputy inspection during concrete and shotcrete construction included inspection during installation of reinforcing steel, PT tendons, formwork, anchors, and during concrete placement. Project management staff worked closely with the City field representatives to coordinate services.

Fullerton Unified School District, Sonoma High School Gymnasium, Fullerton California: – Mr. Meras provided structural steel welding and bolting inspection services. The structure generally consisted of concrete foundations, masonry walls and steel framing. He also provided inspections at the AWI structural steel fabrication plant located in Pico Rivera, California

Arcadia Unified School District – District Maintenance Building, Arcadia, California – Provided structural steel welding and bolting inspection services. Structurally, the construction included steel frames, decking and seismic connections. Connections included high strength bolting.

Anaheim Ponderosa Park Community Center and Gymnasium, Anaheim, California – Provided structural steel welding and bolting inspection during steel construction at the site. Structurally, the construction generally included concrete foundations, masonry walls for the gymnasium and steel framing for the community center building.

Four Parking Structures, Metro Gold Line Authority, Arcadia, California: Served as Field Operations Manager during geotechnical consulting services for the design and construction of four parking structures for the Metropolitan Gold Line Authority as part of the overall Gold Line Foothill Extension. The project included the design and construction of four multi-level parking structures, retaining walls, electrical substations, at-grade parking facilities, site enhancements, flatwork, and wet and dry utilities.

County of Los Angeles Department of Public Works, Los Angeles, California: Field Operations Manager provided materials testing and inspection services on transportation projects, including construction of new Metrolink railroad stations, bridge foundations, highway interchange improvements, parking structures and roadway paving.

I-15 at Duncan Canyon Road Interchange, Fontana, California: Served as Materials Tester providing materials testing services during construction. The project consisted of modifying the existing interchange, realignment of Lytle Creek Road, and storm drain improvements. His services included oversight of field testing of soil, aggregates, concrete and asphalt concrete, inspection of asphalt and concrete batch plants, geotechnical laboratory testing, and quality control for all laboratory procedures, including fulfilling requirements for ASTM, AASHTO, CALTRANS, ACI.

Corona Foothill Parkway Westerly Extension, Corona, California: Served as Materials Tester during construction of the Foothill Parkway Westerly Extension project in Corona, California. The project is located within the southwesterly limits of Corona and in the unincorporated area of Riverside County. Services included geologic mapping during the mass grading excavations as well as inspection and compaction testing during the earthwork operations. Materials testing and inspection services included conformance testing of the construction materials, Gamma-Gamma logging of CIDH caissons constructed using the wet placement method, profilograph (CT 526) and skid testing (ASTM1274/ CT 342) of the bridge deck, and conformance testing of the subgrade soils, base materials, asphalt and Portland cement concrete materials used on the project.

La Pata Avenue Gap Closure, Orange County, California: Senior Field Technician during construction materials testing services during construction of the La Pata Avenue Gap Closure and Camino Del Rio Extension Project in Orange County, California. Services included observation and compaction testing during 12 million cubic yards of mass grading that involved removal of landslides and construction of buttresses.

San Bernardino County Transportation Authority, I-215 Segments 1 & 2, San Bernardino Associated Governments, San Bernardino, California: Served as Materials Tester providing compaction testing, extensive asphalt testing and batch plant inspection, and making concrete cylinders during construction of the I-215 Segments 1 & 2 project in San Bernardino, California. The project consisted of widening and realignment of approximately 2.4 miles of the existing I-215. Services include construction observation and intermittent field and laboratory testing of the construction materials used in the proposed project. Testing was performed in accordance with CTM standards.

EXHIBIT B

Schedule of Charges/Payments

Consultant will invoice City on a monthly cycle. Consultant will include with each invoice a detailed progress report that indicates the amount of budget spent on each task. Consultant will inform City regarding any out-of-scope work being performed by Consultant. This is a time-and-materials contract.

Table 1 - Breakdown of Fee							
Project Coordination and Background Review (Task 1)							
Principal Engineer/Geologist/Environmental Scientist	1 hour	@	$	188.00	/hour	$	188.00
Senior Project Engineer/Geologist/Environmental Scientist	2 hours	@	$	173.00	/hour	$	346.00
Senior Staff Engineer/Geologist/Environmental Scientist	6 hours	@	$	150.00	/hour	$	900.00
				Subtotal		**$**	**1,434.00**
Permit Acquisition and Preparation of a Health and Safety Plan (Task 1)							
Senior Project Engineer/Geologist/Environmental Scientist	1 hour	@	$	173.00	/hour	$	173.00
Senior Staff Engineer/Geologist/Environmental Scientist	6 hours	@	$	150.00	/hour	$	900.00
Permit Fees (San Bernardino County Environmental Health)			Lump Sum			$	425.00
				Subtotal		**$**	**1,498.00**
Site Reconnaissance and Markout for Utility Clearance (Task 1)							
Senior Staff Engineer/Geologist/Environmental Scientist	4 hours	@	$	150.00	/hour	$	600.00
Geophysical Utility Locating			Lump Sum			$	1,250.00
Field Vehicle and Equipment Usage	4 hours	@	$	15.00	/hour	$	60.00
				Subtotal		**$**	**1,910.00**
Subsurface Evaluation (Task 2) **(Assumes 1 boring up to approximately 80 feet deep and 3 borings up to approximately 25 feet deep)**							
Senior Staff Engineer/Geologist/Environmental Scientist	18 hours	@	$	150.00	/hour	$	2,700.00
HSA Truck Drill Rig (Subcontractor) - Prevailing Wage	16 hours	@	$	465.00	/hour	$	7,440.00
Drill Rig Support Vehicle	2 days	@	$	575.00	/day	$	1,150.00
Drill Rig Mobilization/Demobilization (Prevailing Wage)	2 hours	@	$	465.00	/hour	$	930.00
Grout Backfill	155 feet	@	$	12.00	/foot	$	1,860.00
Soil Drums	10 drums	@	$	95.00	/drum	$	950.00
Drum Disposal	10 drums	@	$	195.00	/drum	$	1,950.00
Analytical Testing for Soil Disposal	1 sample	@	$	300.00	/sample	$	300.00
Field Vehicle and Equipment Usage	18 hours	@	$	15.00	/hour	$	270.00
Supplies			Lump Sum			$	100.00
				Subtotal		**$**	**17,650.00**
Laboratory Analyses (Task 3)							
Tests to include moisture and dry density, sieve analysis, Atterberg limits, shear strength, consolidation, R-value, and corrosivity.						$	3,650.00
				Subtotal		**$**	**3,650.00**
Data Compilation and Analysis (Task 4)							
Principal Engineer/Geologist/Environmental Scientist	6 hours	@	$	188.00	/hour	$	1,128.00
Senior Project Engineer/Geologist/Environmental Scientist	12 hours	@	$	173.00	/hour	$	2,076.00
Senior Staff Engineer/Geologist/Environmental Scientist	16 hours	@	$	150.00	/hour	$	2,400.00
				Subtotal		**$**	**5,604.00**
Draft Report Preparation (Task 5)							
Principal Engineer/Geologist/Environmental Scientist	4 hours	@	$	188.00	/hour	$	752.00
Senior Project Engineer/Geologist/Environmental Scientist	12 hours	@	$	173.00	/hour	$	2,076.00
Senior Staff Engineer/Geologist/Environmental Scientist	8 hours	@	$	150.00	/hour	$	1,200.00
Technical Illustrator/CAD Operator	6 hours	@	$	98.00	/hour	$	588.00
Data Processor	6 hours	@	$	71.00	/hour	$	426.00
				Subtotal		**$**	**5,042.00**
Response to Review Comments and Final Report Preparation (Task 5)							
Principal Engineer/Geologist/Environmental Scientist	2 hours	@	$	188.00	/hour	$	376.00
Senior Project Engineer/Geologist/Environmental Scientist	4 hours	@	$	173.00	/hour	$	692.00
Technical Illustrator/CAD Operator	1 hour	@	$	98.00	/hour	$	98.00
Data Processor	1 hour	@	$	71.00	/hour	$	71.00
				Subtotal		**$**	**1,237.00**
Meeting Attendance (Task 6)							
Principal Engineer/Geologist/Environmental Scientist	3 hours	@	$	188.00	/hour	$	564.00
Senior Project Engineer/Geologist/Environmental Scientist	3 hours	@	$	173.00	/hour	$	519.00
				Subtotal		**$**	**1,083.00**
TOTAL FEE						**$**	**39,108.00**

Table 2 – Breakdown of Estimated Fee for Inspection and Materials Testing Services						
Field Services						
Staff Engineer/Geologist/Environmental Scientist	16 hours	@	$ 134.00	/hour	$	2,144.00
Field Technician - Soils	200 hours	@	$ 98.00	/hour	$	19,600.00
Special Inspector, Concrete and Masonry	380 hours	@	$ 104.00	/hour	$	39,520.00
ACI Concrete Technician	100 hours	@	$ 104.00	/hour	$	10,400.00
Special Inspector - Welding and Bolting	120 hours	@	$ 104.00	/hour	$	12,480.00
Anchor Load Test Equipment (includes one Technician)	12 hours	@	$ 190.00	/hour	$	2,280.00
Nondestructive Testing Technician	20 hours	@	$ 114.00	/hour	$	2,280.00
Field Vehicle Usage	848 hours	@	$ 15.00	/hour	$	12,720.00
			Subtotal		**$**	**101,424.00**
Laboratory Testing						
Proctor Density	6 tests	@	$ 220.00	/test	$	1,320.00
Sand Equivalent	3 tests	@	$ 125.00	/test	$	375.00
Sieve Analysis	6 tests	@	$ 145.00	/test	$	870.00
Hveem Stability and Unit Weight	1 test	@	$ 225.00	/test	$	225.00
Concrete Compression Test	100 tests	@	$ 35.00	/test	$	3,500.00
Reinforcing Steel Tensile or Bend	20 tests	@	$ 75.00	/test	$	1,500.00
Masonry Composite Prisms	3 tests	@	$ 120.00	/test	$	360.00
Grout and Mortar Compression Tests	30 tests	@	$ 35.00	/test	$	1,050.00
High Strength Bolt, Nut & Washer Conformance	3 tests	@	$ 150.00	/test	$	450.00
			Subtotal		**$**	**9,650.00**
Project Coordination, Management and Technical Support						
Principal Engineer/Geologist/Environmental Scientist	2 hours	@	$ 188.00	/hour	$	376.00
Project Engineer/Geologist/Environmental Scientist	60 hours	@	$ 165.00	/hour	$	9,900.00
Field Operations Manager	20 hours	@	$ 119.00	/hour	$	2,380.00
			Subtotal		**$**	**12,656.00**
Report Preparation						
Principal Engineer/Geologist/Environmental Scientist	4 hours	@	$ 188.00	/hour	$	752.00
Project Engineer/Geologist/Environmental Scientist	12 hours	@	$ 165.00	/hour	$	1,980.00
Data Processor	4 hours	@	$ 71.00	/hour	$	284.00
			Subtotal		**$**	**3,016.00**
TOTAL ESTIMATED FEE					**$**	**126,746.00**

Schedule of Fees

Hourly Charges for Personnel

Professional Staff

Principal Engineer/Geologist/Environmental Scientist/Certified Industrial Hygienist	$ 188
Senior Engineer/Geologist/Environmental Scientist	$ 178
Senior Project Engineer/Geologist/Environmental Scientist	$ 173
Project Engineer/Geologist/Environmental Scientist	$ 165
Senior Staff Engineer/Geologist/Environmental Scientist	$ 150
Staff Engineer/Geologist/Environmental Scientist	$ 134
GIS Analyst	$ 123
Technical Illustrator/CAD Operator	$ 98

Field Staff

Certified Asbestos/Lead Technician	$ 173
Field Operations Manager	$ 119
Nondestructive Examination Technician (UT, MT, LP)	$ 114
Supervisory Technician	$ 104
Special Inspector (Concrete, Masonry, Structural Steel, Welding, and Fireproofing)	$ 104
Senior Technician	$ 103
Technician	$ 98

Administrative Staff

Information Specialist	$ 83
Geotechnical/Environmental/Laboratory Assistant	$ 81
Data Processor	$ 71

Other Charges

Concrete Coring Equipment (includes technician)	$ 190/hr
Anchor Load Test Equipment (includes technician)	$ 190/hr
GPR Equipment	$ 180/hr
Inclinometer	$ 100/hr
Hand Auger Equipment	$ 80/hr
Rebar Locator (Pachometer)	$ 25/hr
Vapor Emission Kit	$ 65/kit
Nuclear Density Gauge	$ 12/hr
X-Ray Fluorescence	$ 70/hr
PID/FID	$ 25/hr
Air Sampling Pump	$ 10/hr
Field Vehicle	$ 15/hr
Expert Witness Testimony	$ 450/hr
Direct Expenses	Cost plus 15 %

Special equipment charges will be provided upon request.

Notes

For field and laboratory technicians and special inspectors, overtime rates at 1.5 times the regular rates will be charged for work performed in excess of 8 hours in one day Monday through Friday and all day on Saturday. Rates at twice the regular rates will be charged for all work in excess of 12 hours in one day, all day Sunday and on holidays.

Field technician and special inspection hours are charged at a 4-hour minimum, and 8-hour minimum for hours exceeding 4 hours.

Invoices are payable upon receipt. A service charge of 1.5 percent per month may be charged on accounts not paid within 30 days.

Our rates will be adjusted in conjunction with the increase in the Prevailing Wage Determination during the life of the project, as applicable.

The terms and conditions are included in Ninyo & Moore's Work Authorization and Agreement form.

Schedule of Fees for Laboratory Testing

SOILS

Atterberg Limits, D 4318, CT 204	$ 170
California Bearing Ratio (CBR), D 1883	$ 550
Chloride and Sulfate Content, CT 417 & CT 422	$ 175
Consolidation, D 2435, CT 219	$ 300
Consolidation, Hydro-Collapse only, D 2435	$ 150
Consolidation – Time Rate, D 2435, CT 219	$ 200
Direct Shear – Remolded, D 3080	$ 350
Direct Shear – Undisturbed, D 3080	$ 300
Durability Index, CT 229	$ 175
Expansion Index, D 4829, IBC 18-3	$ 190
Expansion Potential (Method A), D 4546	$ 170
Geofabric Tensile and Elongation Test, D 4632	$ 200
Hydraulic Conductivity, D 5084	$ 350
Hydrometer Analysis, D 422, CT 203	$ 220
Moisture, Ash, & Organic Matter of Peat/Organic Soils	$ 120
Moisture Only, D 2216, CT 226	$ 35
Moisture and Density, D 2937	$ 45
Permeability, CH, D 2434, CT 220	$ 300
pH and Resistivity, CT 643	$ 175
Proctor Density D1557, D 698, CT 216, AASHTO T-180	$ 220
Proctor Density with Rock Correction D 1557	$ 340
R-value, D 2844, CT 301	$ 375
Sand Equivalent, D 2419, CT 217	$ 125
Sieve Analysis, D 422, CT 202	$ 145
Sieve Analysis, 200 Wash, D 1140, CT 202	$ 100
Specific Gravity, D 854	$ 125
Thermal Resistivity (ASTM 5334, IEEE 442)	$ 925
Triaxial Shear, C.D, D 4767, T 297	$ 550
Triaxial Shear, C.U., w/pore pressure, D 4767, T 2297 per pt	$ 450
Triaxial Shear, C.U., w/o pore pressure, D 4767, T 2297 per pt	$ 350
Triaxial Shear, U.U., D 2850	$ 250
Unconfined Compression, D 2166, T 208	$ 180

MASONRY

Brick Absorption, 24-hour submersion, 5-hr boiling, 7-day, C 67	$ 70
Brick Compression Test, C 67	$ 55
Brick Efflorescence, C 67	$ 55
Brick Modulus of Rupture, C 67	$ 50
Brick Moisture as received, C 67	$ 45
Brick Saturation Coefficient, C 67	$ 60
Concrete Block Compression Test, 8x8x16, C 140	$ 70
Concrete Block Conformance Package, C 90	$ 500
Concrete Block Linear Shrinkage, C 426	$ 200
Concrete Block Unit Weight and Absorption, C 140	$ 70
Cores, Compression or Shear Bond, CA Code	$ 70
Masonry Grout, 3x3x6 prism compression, C 39	$ 45
Masonry Mortar, 2x4 cylinder compression, C 109	$ 35
Masonry Prism, half size, compression, C 1019	$ 120
Masonry Prism, Full size, compression, C 1019	$ 200

REINFORCING AND STRUCTURAL STEEL

Chemical Analysis, A 36, A 615	$ 135
Fireproofing Density Test, UBC 7-6	$ 90
Hardness Test, Rockwell, A 370	$ 80
High Strength Bolt, Nut & Washer Conformance, per assembly, A 325	$ 150
Mechanically Spliced Reinforcing Tensile Test, ACI	$ 175
Pre-Stress Strand (7 wire), A 416	$ 170
Reinforcing Tensile or Bend up to No. 11, A 615 & A 706	$ 75
Structural Steel Tensile Test: Up to 200,000 lbs., A 370	$ 90
Welded Reinforcing Tensile Test: Up to No. 11 bars, ACI	$ 80

CONCRETE

Compression Tests, 6x12 Cylinder, C 39	$ 35
Concrete Mix Design Review, Job Spec	$ 300
Concrete Mix Design, per Trial Batch, 6 cylinder, ACI	$ 850
Concrete Cores, Compression (excludes sampling), C 42	$ 120
Drying Shrinkage, C 157	$ 400
Flexural Test, C 78	$ 85
Flexural Test, C 293	$ 85
Flexural Test, CT 523	$ 95
Gunite/Shotcrete, Panels, 3 cut cores per panel and test, ACI	$ 275
Lightweight Concrete Fill, Compression, C 495	$ 80
Petrographic Analysis, C 856	$ 2,000
Restrained Expansion of Shrinkage Compensation	$ 450
Splitting Tensile Strength, C 496	$ 100
3x6 Grout, (CLSM), C 39	$ 55
2x2x2 Non-Shrink Grout, C 109	$ 55

ASPHALT

Air Voids, T 269	$ 85
Asphalt Mix Design, Caltrans (incl. Aggregate Quality)	$ 4,500
Asphalt Mix Design Review, Job Spec	$ 180
Dust Proportioning, CT LP-4	$ 85
Extraction, % Asphalt, including Gradation, D 2172, CT 382	$ 250
Extraction, % Asphalt without Gradation, D 2172, CT 382	$ 150
Film Stripping, CT 302	$ 120
Hveem Stability and Unit Weight D 1560, T 246, CT 366	$ 225
Marshall Stability, Flow and Unit Weight, T 245	$ 240
Maximum Theoretical Unit Weight, D 2041, CT 309	$ 150
Moisture Content, CT 370	$ 95
Moisture Susceptibility and Tensile Stress Ratio, T 238, CT 371	$ 1,000
Slurry Wet Track Abrasion, D 3910	$ 150
Superpave, Asphalt Mix Verification (incl. Aggregate Quality)	$ 4,900
Superpave, Gyratory Unit Wt., T 312	$ 100
Superpave, Hamburg Wheel, 20,000 passes, T 324	$ 1,000
Unit Weight sample or core, D 2726, CT 308	$ 100
Voids in Mineral Aggregate, (VMA) CT LP-2	$ 90
Voids filled with Asphalt, (VFA) CT LP-3	$ 90
Wax Density, D 1188	$ 140

AGGREGATES

Clay Lumps and Friable Particles, C 142	$ 180
Cleanness Value, CT 227	$ 180
Crushed Particles, CT 205	$ 175
Durability, Coarse or Fine, CT 229	$ 205
Fine Aggregate Angularity, ASTM C 1252, T 304, CT 234	$ 180
Flat and Elongated Particle, D 4791	$ 220
Lightweight Particles, C 123	$ 180
Los Angeles Abrasion, C 131 or C 535	$ 200
Material Finer than No. 200 Sieve by Washing, C 117	$ 90
Organic Impurities, C 40	$ 90
Potential Alkali Reactivity, Mortar Bar Method, Coarse, C 1260	$ 1,250
Potential Alkali Reactivity, Mortar Bar Method, Fine, C 1260	$ 950
Potential Reactivity of Aggregate (Chemical Method), C 289	$ 475
Sand Equivalent, T 176, CT 217	$ 125
Sieve Analysis, Coarse Aggregate, T 27, C 136	$ 120
Sieve Analysis, Fine Aggregate (including wash), T 27, C 136	$ 145
Sodium Sulfate Soundness, C 88	$ 450
Specific Gravity and Absorption, Coarse, C 127, CT 206	$ 115
Specific Gravity and Absorption, Fine, C 128, CT 207	$ 175

ROOFING

Roofing Tile Absorption, (set of 5), C 67	$ 250
Roofing Tile Strength Test, (set of 5), C 67	$ 250

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.