

FIRST AMENDMENT TO AGREEMENT

THIS FIRST AMENDMENT TO AGREEMENT ("Amendment") made and entered into as of this ____ day of _____, 2016, amends the Agreement heretofore entered into between the CITY OF FRESNO, a California municipal corporation ("CITY"), and Moore Twining Associates, Inc., a California corporation ("CONSULTANT").

RECITALS

WHEREAS, CITY and CONSULTANT entered into an agreement, dated June 26, 2014, for professional construction inspection and materials testing services for the Tertiary Treatment and Disinfection Facility at the Fresno/Clovis Regional Wastewater Reclamation Facility ("Agreement"); and

WHEREAS, CITY desires to modify the Agreement to include construction inspection and materials testing services for the Recycled Water Pump Station; and

WHEREAS, the parties desire to modify the Agreement to include the Recycled Water Pump Station and extend the agreement duration; and

WHEREAS, due to the need for additional services, the parties desire to increase the total compensation by an additional \$171,134.23 to complete the expanded Scope of Work; and

WHEREAS, with entry into this Amendment, CONSULTANT agrees that it has no claim, demands or disputes against CITY.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing and of the covenants, conditions, and premises hereinafter contained, to be kept and performed by the respective parties, the parties agree that the aforesaid Agreement be amended as follows:

The first paragraph of Section 1 is amended in its entirety to read as follows:

1. Scope of Services. CONSULTANT shall perform to the satisfaction of the CITY the services described herein and in **Exhibit D**, including all work incidental to, or necessary to perform, such services even though not specifically described in **Exhibit D**.

2. CONSULTANT shall provide additional services as described in **Exhibit D**, attached hereto and incorporated by reference.

3. **Exhibit A** of the Agreement is amended to expand the Scope of Work as indicated in **Exhibit D**, attached hereto and incorporated herein by reference.

4. Section 3(a) of the Agreement is amended in its entirety to read as follows:

(a) CONSULTANT'S sole compensation for satisfactory performance of all services required or rendered pursuant to this Agreement shall be a total fee not to exceed \$302,163.23, paid on a time and materials basis in accordance with the schedule of fees contained in **Exhibit A**.

5. In the event of any conflict between the body of this Amendment and any Exhibit or Attachment hereto, the terms and conditions of the body of this Amendment shall control and take precedence over the terms and conditions expressed within the Exhibit or Attachment.

Furthermore, any terms or conditions contained within any Exhibit or Attachment hereto which purport to modify or restate any terms or conditions, or modify the allocation of risk between the parties, provided for within the body of this Amendment or the body of the Agreement, shall be null and void.

6. Except as otherwise provided herein, the Agreement entered into by CITY and CONSULTANT, dated June 26, 2014, remains in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment at Fresno, California, the day and year first above written.

CITY OF FRESNO,
a California municipal corporation

MOORE TWINING ASSOCIATES, Inc.,
a California corporation

By: Harry D. Moore

Name: HARRY D. MOORE

Title: PRESIDENT

By: Ruth E. Moore

Name: RUTH E. MOORE

Title: SECRETARY

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March 23, 2016

MTP No.: 5115-1311

Mr. Raul Gonzalez
City of Fresno Public Utilities Department
Wastewater Management Department
5607 W. Jensen Avenue
Fresno, CA 93706

Project: Tertiary Treatment and Disinfection Facilities Recycled Water Pump Station

Subject: Proposal for Construction Inspection and Materials Testing Services

Dear Mr. Gonzalez:

We appreciate the opportunity to submit this proposal for **Construction Inspection and Materials Testing Services** for the Tertiary Treatment and Disinfection Facilities Recycled Water Pump Station Project.

In brief, Moore Twining Associates, Inc. (Moore Twining) has over 117 years of experience in providing professional services including Construction Inspection and Materials Testing Services. Moore Twining is certified as a Disabled Veteran Business Enterprise (DVBE) by the State of California. Our laboratory is certified by Caltrans, AASHTO, the Army Corps of Engineers, among others, and participates in annual reference sample programs through CCRL, AMRL and Caltrans.

Moore Twining has provided services for the City of Fresno Regional Wastewater Reclamation Facility (RWRF) including the Enhanced Dewatering Project construction of annex building, storage silo and new asphalt paved truck hauling lanes, RWRF Ponding Backfill and the SPOB Remodel and Canopy Construction Project as well as the Tertiary Treatment and Disinfection Facility currently being constructed.

We encourage you to consider our firm's previous working relationship with the City of Fresno staff, our full service capabilities, our local presence, and our relevant project experience as you proceed with your selection process. If you have any questions regarding this proposal or need additional information, please contact our office at (800) 268-7021.

Respectfully Submitted,

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Scope/Fee Proposal/Cost Structure

SCOPE OF SERVICES

The anticipated inspection and testing services required for the proposed Tertiary Treatment and Disinfection Facility Recycled Pump Station are described in this section. The earthwork required for the construction of the building pad has already been completed.

- **Earthwork** – The earthwork anticipated for this project is generally related to trench excavation backfill of approximately **327** linear feet of underground utilities associated with the recycled water pump station to be constructed. We have knowledge of the earthwork for this project as our firm performed the earthwork observation and testing during the construction of the Tertiary Treatment and Disinfection Facility project that is currently under construction.

Our scope of services will include observation and testing during the placement and compaction of utility trench backfill. In addition, in-place moisture and density tests will be performed in accordance with ASTM D6938 to determine if the trench backfill has been compacted in conformance with the project plans and specifications. Samples of the subgrade soils and proposed aggregate base (AB) will be tested to evaluate the maximum dry density and optimum moisture content in accordance with ASTM D1557 test procedures.

It has been assumed that the native material will be used as engineered fill and that the contractor will provide recent documentation that will demonstrate that the aggregate base proposed for the project will meet the requirements of Caltrans Class II Aggregate Base; therefore, it is anticipated that compliance testing for aggregate base and import material, if needed, will not be required and this testing is not included in our scope of services or our estimated fees.

- **Asphalt Concrete Paving** – Based on the project documents, asphalt concrete (AC) paving will consist of restoring the asphalt at the underground utility trenches that have been installed. There will be two (2) types of AC placed, 2 and 4 inch thick infill sections. The two (2) inch thick section has an area of approximately **75** linear feet while the four (4) inch thick section will have an area of approximately **50** linear feet.

Our firm will perform the testing and inspection for the proposed AC paved areas per the project documents. The project specifications indicate that compaction of the AC is to be determined by ASTM D1188 or D2726 and the frequency of testing is to be once every 2,000 square feet or fraction thereof but at least once every 4 hours. Asphalt content is also to be determined per California Test Method CT 362 at the same frequency.

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It is our understanding that further compliance testing of the AC will not be part of our scope and that this compliance testing will be performed by the supplying batch plant and documentation will be provided for review.

- **Cast-In-Place Structural Concrete** - Per the project documents, our scope of services will consist of the inspection of reinforcing steel, continuous observation of the placement of structural concrete, and sampling and testing concrete for **5** Pipe Support Pads and **1** Pump Station Pad.

Our scope would include sampling and testing the concrete at intervals specified by the Construction Manager, as stated in the project specifications. For the purpose of this fee estimate, it has been assumed that concrete would be sampled at intervals of 100 cubic yards or fraction thereof for each day that concrete is placed. The temperature of the fresh concrete will be taken and slump tests will be performed. Per the project documents, the inspector will cast test cylinders (6 inch diameter by 12 inch high cylinders) for each concrete placement and these cylinders will be tested for compressive strength. One compressive strength test will be performed at 7 days, two compressive strength tests at 28 days, and one compressive strength cylinder will be held and tested at 56 days if the required compressive strength has not been achieved at 28 days.

- **Expansion/Epoxy Anchors** – Per the contract documents, continuous special inspection will be performed on all Expansion/Epoxy anchors installed during this project.

It should be noted that the welding was eliminated from this proposal upon notification by Raul Gonzalez that the contractor will be responsible for all welding certifications.

In addition to the testing and inspection services described above, our firm will also provide engineering support as requested. This support would include reviewing inspection reports, reviewing laboratory testing reports, and preparing a final inspection report.

A Project Manager will be assigned to the project for the services provided by Moore Twining. The Moore Twining Project Manager is solely for managing the services provided by Moore Twining and is not related to any aspect of the actual construction which is the responsibility of the General Contractor. To the extent possible, Moore Twining will have one primary inspector assigned to the project to provide continuity and quality assurance for the project. Our Project Manager will work closely with the General Contractor to dispatch the inspectors to the job site when they are needed, verify that the required testing is being performed, and verify that deviations are being recorded and tracked until resolved.

The Project Manager will work with the inspectors and technicians dispatched to the project site to verify that they have the information they need to perform their job effectively. Moore Twining will work with the General Contractor to develop the method for notification and confirmation of the required inspections and tests. Our project staff will communicate via

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company cell phones. Our firm maintains a vehicle-mounted GPS system that is used to schedule and manage inspectors and technicians.

Inspections will be performed by engineering technicians or inspectors who have the required experience and/or certifications such as ACI, ICC, AWS, etc. to inspect project-specific materials, performed in accordance with the method specified by the contract documents or appropriate party.

Project field and office files will be maintained by our assigned Project Manager with copies of reports filed by the element of work inspected. These files will also contain the material test reports and instructions received from the client.

A critical part of any inspection for ongoing projects is the ability to track and verify correction of structural discrepancies. Moore Twining will maintain a "Log of Discrepancies." This log is used to track discrepancies and verify these discrepancies are addressed during the course of construction. If a discrepancy requires an RFI or design change, the discrepancy may need to be tracked for a significant period of time. At the conclusion of our inspections and tests, our firm will compile a list of reports and inspections conducted for the project, which will be provided to City of Fresno and other pertinent members of the project team. Our Project Manager will visit the project site upon request or if an issue arises that requires our attention.

FEE ESTIMATE

It is proposed that our services be provided on a time and materials basis. In any case, Moore Twining will only charge for those services performed and billed in accordance with the fees and invoicing section of this proposal. Our firm will notify you of any scope changes that occur during the course of the project if these scope changes increase our fees.

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Table 1 -- Estimate of Fees to Provide Testing and Inspection Services Tertiary Treatment and Disinfection Facility - Water Pump Station Project Fresno, California			
Scope Description	Quantity Hours /Test	Unit Rate	Extension
Field Testing and Inspection			
Earthwork Observation and Testing (Hours)	98	\$55.00	\$5,390.00
Reinforced Concrete Observation and Testing (Hours)	8	\$55.00	\$440.00
Concrete Placement Obs., Sampling, and Testing (Hours)	16	\$55.00	\$880.00
Expansion/Epoxy Anchor Observation (Hours)	40	\$55.00	\$2,200.00
Welding Inspections (Field)	0	\$55.00	\$0.00
Sample Pick Up (2 Sample Pick Ups) (Hours)	5	\$55.00	\$275.00
Vehicle Mileage (17 miles per Roundtrip)	25	\$10.00	\$250.00
Vehicle and Equipment Charge (per day, 65 days of inspection/testing)	25	\$15.00	\$375.00
Subtotal			\$9,810.00
Laboratory Testing			
Maximum Density and Optimum Moisture (Native Material) -- ASTM D1557 (Each)	3	\$135.00	\$405.00
Maximum Density and Optimum Moisture (AB) -- ASTM D1557 (Each)	2	\$145.00	\$290.00
Compressive Strength of Concrete (set of 4 cylinders)	2	\$80.00	\$160.00
Asphalt Content - Extraction (CT 362)	2	\$200.00	\$400.00
Maximum Theoretical Unit Weight (Rice Specific Gravity), CT-309/ASTM D-2041	2	\$150.00	\$300.00
Bulk Specific Gravity of Compacted Bituminous Mixture (Cores) (ASTM D-2726)	8	\$40.00	\$320.00
Subtotal			\$1,875.00
Project Coordination, Engineering Review, and Reporting			
Project Manager (Hours)	12	\$85.00	\$1,020.00
Project Engineer(Hours)	6	\$85.00	\$510.00
Administrative Support (Hours)	6	\$45.00	\$270.00
Subtotal			\$1,800.00
Total Fee Estimate			\$13,485.00

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FEES AND INVOICING

Rates stated herein are only for work associated with the Recycled Water Pump Station and are based on this project **NOT being subject to the same prevailing wage** requirements as the Tertiary Treatment and Disinfection Facility (as discussed with Mr. Raul Gonzalez) due to a separate funding source for this portion of the project. Our fees are based on a two-hour minimum billing and two-hour increments thereafter for field technicians, portal-to-portal. The rates presented above are based on 8-hour workdays, Monday through Friday. Overtime (beyond eight hours per day or after forty hours in five days per week) or premium (including Saturdays) is billed at 150% of our stated hourly rates. Double-time (beyond 12 hours per day) and Sundays or holidays will be billed at 200% of our stated hourly rates. If additional testing is required beyond the scope of this proposal, those services would be billed in accordance with our current Non-Prevailing Wage Fee Schedule.

An itemized listing of the tests and inspections performed will be provided on individual invoices.

DELIVERABLES

Moore Twining will provide a daily field report for each inspection. These reports will be followed by reports signed by a registered engineer. Copies of reports will be sent to the City of Fresno, and others as directed.

SCHEDULING

It is anticipated that the Construction Manager, or representative of the City of Fresno, will be responsible for scheduling the testing and inspection services for the project. Moore Twining can only be responsible for those inspections and tests our firm is notified of either by facsimile or electronic mail. To provide for your schedule, we should be notified at least one week prior to the start of construction and we request a 48-hour notice before each testing and/or inspection event. Testing and inspection services can be scheduled by contacting our Fresno office at (559) 268-7021.

NOTIFICATIONS AND EXCLUSIONS

The following items were excluded from our scope of services and our fee estimate:

- Class II Aggregate Base Compliance Testing;
- Welding Inspections;
- AC Coring Equipment;
- Import Soil Compliance Testing;
- Special Inspection of Field Welded Pipe Connections;
- Concrete, Mortar, and Grout Mix Design and Compliance Testing;
- Providing access to all construction elements requiring inspection; and
- Any items not so indicated in this proposal.

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If any of these items are required during the course of the project, upon request, we can provide the aforementioned services and provide associated fees. Moore Twining is a full service testing and inspection firm capable of meeting your needs on this project. Our estimated fee assumes the contractor will provide access to all construction elements requiring inspection at the time requested by our firm. The contractor is solely responsible for job site safety including excavation safety, support, etc.