



February 22, 2017

Mr. Tom Green, P.E.
City of Fort Lauderdale
Community Redevelopment Agency
914 NW 6th Street
Fort Lauderdale, Florida 33311

Subject: Proposal to Provide Special Inspection Services and Materials Testing Services

Las Olas Boulevard Corridor Improvements
Fort Lauderdale Beach, Intercoastal to SR A1A
Fort Lauderdale, Florida
Amec Foster Wheeler Proposal Number: 17PROP.WPB.05, Task XX

Dear Mr. Green:

Amec Foster Wheeler Environment & Infrastructure, Inc. is pleased to present this proposal to provide Special Inspection Services and Materials Testing Services for the subject project. In light of our long history of providing quality construction testing and inspection services, we believe our engineers and inspectors can bring a wealth of knowledge to your construction team. This proposal outlines our understanding of the background information related to this project, our proposed scope of services, our fee estimates, and authorization instructions.

Background Information:

The project consists of a 5-level, 663 space parking garage with a rooftop amenity deck, located on the north side of the Las Olas Bridge, along the Intracoastal Waterway and creating a new marina promenade around Las Olas Marina. The first floor of the garage contains space for a transportation hub and bike lockers.

Scope of Services: Threshold Inspections

We propose to provide a Special Inspector and an Authorized Representative on periodic (Part-time) schedule in accordance with the Structural Threshold Inspection Plan. We will verify that the primary structural frame is constructed in substantial accordance with the permitted official contract documents, except where variations are permitted in writing by the Structural Engineer of Record. Our inspection and observation scope includes the following areas of work in accordance with the Structural Threshold Inspection Plan prepared by Walker Parking Consultant - Sheet No. GS-0.02, dated 10/17/2016:

1. Foundations (excludes piles)
2. Cast-in-Place Reinforced Concrete and Pre-cast Concrete
3. Concrete Masonry Units (Reinforced Masonry)
4. Structural Steel
5. Welded and bolted connections

Staffing:

It is anticipated that the following personnel will be utilized on this task work order. Additional personnel will be assigned, if needed.

Special InspectorArmando Hernandez, P.E., FL Special Inspector #7392809
Authorized RepresentativeAlexander Rojas, P.E. FL P.E. #75705
Authorized RepresentativeHernando Garcia

Scope of Services: Materials Testing Services

The scope of work and fee estimate presented herein is based on our review and interpretation of the City of Fort Lauderdale Project No. 11900 and the 90% GMP pricing and permit construction document package dated 10/17/2016. The scope of work includes field sampling and testing to be performed by CTQP certified technicians, and laboratory testing services for soils, concrete and asphalt. The scope of work also entails supervision of the field and laboratory testing services, reporting of testing results AMECFW's QC Manager or his representative, in addition to coordination and invoicing of our services by AMECFW's Project Manager. It does not include any offsite inspections for production plants such as steel, concrete and pre-cast. An itemized description of our anticipated scope of work is presented below:

FIELD SERVICES:**1. Soils:**

Provide a CTQP earthwork Level I certified inspectors to perform in-place density tests with a nuclear gauge in accordance with FDOT Florida Method FM1- T 238.

- Perform field density testing of embankment in accordance with the frequency stated in the project specification.
- Perform field density test of stabilizing subgrade in both cut and fills in accordance with the project specification.

2. Concrete:

Provide certified CTQP technician to sample concrete in the field during placement, mold cylindrical specimens for compressive strength testing and perform plastic properties tests in general accordance with the project Specifications.

- Certified technician will be present and perform tests throughout the placement operation at the frequency indicated in the project specification. Including sampling, molding of compressive strength test specimens in 4 inch by 8 inch cylinders, plastic property testing (air content, temperature and slump).
- Check to confirm that the delivery trucks have valid inspection cards issued by FDOT, the revolution counter on the mixer is working properly, and that calibration of the water dispenser has been performed within the last 12 months.

3. Asphalt Paving

Provide a CTQP certified Asphalt level II roadway inspector to travel to the construction site and provide quality control inspections during the placement of asphalt. The inspector will complete the QC field roadway inspection reports as required by the FDOT. We will not be responsible for the performance of density testing of the asphalt or coring of the asphalt for QC sampling; this is anticipated to be performed by the asphalt supplier.

- Monitor the mix temperature for the first 5 loads and every 5th load from there on. The mix temperature at the roadway will be documented as per FDOT Specifications, and in accordance with specifications to document compliance with the master temperature range and the established mix temperature at the roadway operations only. City

representatives will be notified if the mix temperature fails to meet the criteria and will be rejected as required by the specification.

- Monitor the mix spread rate at the beginning of each day's production.
- Document tack or prime temperature and spread rate as per specification. The temperature from the tanker will be recorded at the time of application. All calibration charts for prime/tack tankers must be provided to AMEC at least one day prior to the application and it is expected that the trucks be clearly marked so that they may be associated with the appropriate calibration chart. Thermometers must also be operable and visible to the technician.
- Perform cross slope checks at a frequency of one measurement every 100 feet during paving operations. The cross slope measurements will be provided to the City representatives so that they become aware when in-place conditions are outside the acceptable range.

LABORATORY SERVICES

AMEC will perform laboratory testing for concrete, soils and asphalt as outlined below. The tests will be performed in general accordance with the AASHTO, ASTM, or Florida Method (FM) procedures listed in the contractor quality control (CQC) program outlined in the Florida Department of Transportation Specifications for Roadway and Bridge Construction. AMEC will submit a monthly package of test results. Test results will be available daily for information purposes and test results that may be needed day to day.

1. Soils:

Pertinent laboratory tests will be performed on subgrade and embankment soils as well as pavement stabilized subgrade and base courses, in accordance with FDOT specification.

- Laboratory compaction tests (Standard/Modified Proctors)
- Limerock Bearing Ratio (LBR)
- Moisture Content, organic content, Atterberg Limits and particle size analyses.

2. Concrete:

Unconfined compressive strength testing will be performed on the 4 inch by 8 inch cylindrical specimens molded during concrete placement. The amount of cylinders to be tested and the test age will be determined based on the specifications and the specific application for the individual concrete samples (anticipated 8 cylinders per set).

3. Asphalt:

Provide a Plant Laboratory Technician with CTQP Asphalt Plant Level II qualification that will be assigned to the approved production plant for the performance of the following testing activities on an as needed basis:

- Sampling Bituminous Paving Materials
- Asphalt Ignition Oven
- Maximum Specific Gravity of Bituminous Paving
- Gyratory Compaction
- Mechanical Analysis of Extraction Aggregate
- Bulk Specific Gravity

PROJECT MANAGEMENT SERVICES

As part of our services, it should be understood that AMECFW will make the Contractor aware if any means and methods deviate from the FDOT Specifications. A Project Schedule must be provided to AMECFW in order to efficiently manage labor force.

AMECFW will provide a QC/Project Manager to manage/assign AMECFW technicians, track reports and entries, and inform contractor of non-comparing test results. In addition, the QC/Project Manager will review reports/test results, as necessary, and be dedicated in "as needed" basis to the project in order to attend meetings and address other project requirements as outlined in this proposal.

FEE ESTIMATE

The fee estimate provided below was developed based on our review and interpretation of the specifications and drawings provided by the City of Fort Lauderdale. The anticipated total fees for this project will be **\$199,997.50**, as itemized in the table below.

DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL PRICE
Soils Testing				
In-situ density Tests-Nuclear Gauge Method	398	Hour	\$55.00	\$21,890.00
Standard or Modified Proctor	10	Each	\$150.00	\$1,500.00
Limerock Bearing Ratio (LBR)	4	Each	\$225.00	\$900.00
Sieve Analysis	14	Each	\$60.00	\$840.00
Atterberg Limits	14	Each	\$65.00	\$910.00
Organic Content	42	Each	\$35.00	\$1,470.00
Trip Charge	54	Each	\$60.00	\$3,240.00
Concrete Testing				
Field Technician (ACI certified)	398	Hours	\$55.00	\$21,890.00
Curing, Capping and Testing (5 Cylinders per Set)	828	Each	\$15.00	\$12,420.00
Air Content	166	Each	\$15.00	\$2,490.00
Trip Charge	54	Each	\$60.00	\$3,240.00
Paving Inspection and Asphalt Testing				
Senior Engineer Technician (CTQP Certified) Asphalt Plant and Paving	184	Hours	\$65.00	\$11,960.00
Trip Charge	16	Each	\$60.00	\$960.00
Project Management Services				
Senior Engineer-Sign and Seal Reports/PM/Meeting	75	Hours	\$130.00	\$9,750.00
Clerical-preparation and distribution of laboratory test reports and invoicing	200	Hours	\$45.00	\$9,000.00

Threshold Inspection Services				
Welding Inspector (CWI)	181.5	Hours	\$75.00	\$13,612.50
Trip Charge	143	Each	\$60.00	\$8,580.00
Threshold Representative/Licensed Building Inspector (BN)/Roofing Consultant	743	Hours	\$75.00	\$55,725.00
Threshold Inspector (PE)	99	Hours	\$130.00	\$12,870.00
Clerical	150	Hours	\$45.00	\$6,750.00

We will charge for the services actually provided in accordance with the unit fees listed above. Our fee estimate does not include stand-by time, cancelled operations or re-testing. Fees associated to these events and/or additional services not included in the above estimate will be invoiced based on the unit rates established in our continuing services contract. Our estimated fees are based on the scope of work described herein which we anticipate will be adequate to meet the Quality Control Requirements. Any deviations from the schedule or any other data provided that affects the initial scope of work will result in services that will be independently invoiced as time and materials in addition to the agreed upon cost estimate. In the event that this occurs, AMECFW will inform the City of the event(s) in writing so that these issues are documented as back-up for time and materials invoicing. Deviations are defined as the addition of work or scope to the original contract, a formal extension or contraction in contract time awarded by the City of Fort Lauderdale to the contractor or caused by subcontractor, requests by the City of Fort Lauderdale to the contractor that result in additional services that were not required by the specifications at the time of the original contract, and the additional work or testing that may be required if there is damage of in-place or partially completed work from hurricanes, natural disasters, or occurrences outside the control of AMECFW and the Contractor.

The services listed under this scope of work and fee estimate are subject to the applicable terms and conditions in our continuing services contract with the City of Fort Lauderdale.

It is understood that our firm will not be responsible for job safety on this project. Job and site safety will be the sole responsibility of the contractor. We will endeavor to conduct our services in a safe manner and we reserve the right to decline to perform our services in unsafe conditions.

Closing

Attached please find an estimate of **\$199,997.50** to perform the required inspection work. It is recognized that the attached are estimated costs and that the work may vary due to changes to the task work order or be amended to meet additional requirements.

Compensation for our services will be based upon the actual time spent in accordance with the attached fee schedules. We will not exceed our estimated fee without prior authorization from your office. If services outside our proposed scope of services are required, we can provide a fee estimate for the additional inspections required. Invoices will be submitted monthly and are due upon receipt.

Re-inspection time will be billed at the hourly rates listed in the attached fee schedule and listed on each invoice as a separate line item should you desire to back-charge the general contractor for this additional time.

Schedule Consideration, Assumptions, and General Conditions

Our fee estimates are based on the following qualifying assumptions.

- (1) We request a 24 hour notification when our services are utilized on a part-time basis. This prior notification will allow us to schedule our personnel more efficiently and help prevent project delays. **Please contact Criztol Lopez to schedule our services at 561-242-7713.**
- (2) The contractor will work a fifty hour week, generally working between 7:00 a.m. to 5:00 p.m. Monday through Friday. From our previous experience on similar projects, we anticipate the contractor will deviate from the planned schedule. We will consider these deviations within our scope of services as long as the contractor's schedule does not require our threshold inspection personnel to be on site more than an average of 40 hours per week and does not require additional personnel.
- (3) The duration and general sequencing shown on each activity on the schedule will not be unreasonably exceeded. We assume that our services will be required during a 24 month construction period for material testing including a 6 month construction period for special inspection services. If events beyond the contractor's control extend this schedule, then our schedule will likewise extend at no additional cost provided our services are not required during the delay period.
- (4) Re-inspection of non-conforming issues is not included in our fee estimate. We understand that re-inspection costs will be at the contractor's expense and deducted from the contract sum. Our monthly invoices will show a separate item for re-inspection services.
- (5) Access to inspection items and cooperation will be provided by the contractor and his subcontractors.
- (6) We anticipate that secure office space will be provided on-site for our personnel.
- (7) We will provide a field representative to observe the contractor's work and conduct field tests. Our services do not include supervision or direction of the actual work of the contractor, his employees or agent and the contractor should be so advised. The contractor should also be aware that neither the presence of our field representative nor the observation and testing by our firm shall excuse him in any way for defects discovered in his work. It is understood that our firm will not be responsible for job or site safety on this project. Job and site safety will be the sole responsibility of the contractor.
- (8) Amec Foster Wheeler shall not have control or charge of, and shall not be responsible for construction means, methods, techniques, sequences or procedures, nor for safety precautions and programs in connection with the contractor's work.
- (9) In this proposal, the words "supervision," "inspection," "monitoring" or "control" are used to mean observation of the work and the conducting of tests at appropriate times by Amec Foster Wheeler or as required by your representative to verify substantial compliance with plans, specifications, and design concepts.

- (10) Under Florida Statutes, Chapter 553, the Special Inspector is charged with certain inspections of structural components of a defined threshold building. The inspections are to be performed in accordance with the approved and filed Threshold Inspection Plan as prepared by the Structural Engineer of Record. While the inspections performed by the Special Inspector are under the guidance and auspices of the appropriate building code or reference code, it is not the task of the Special Inspector to determine or certify compliance of the building, in general, with the building code. Compliance with the building code is the responsibility of the designers, in concert with the general contractor.
- (11) The City of Ft. Lauderdale will provide one paper copy and one electronic copy of all permitted drawings and specifications, approved shop drawings and submittals, clarifications (RFIs) and pertinent documents to perform the work.

If you have any questions regarding the enclosed cost proposal, please contact us at (561) 242-7713.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.

A handwritten signature in blue ink, appearing to read "A Hernandez", is positioned above the typed name of the Special Inspector.

Alexander Rojas, P.E.
Project Manager

Armando Hernandez, P.E.
Special Inspector

Attachments: Estimated Staff Hours
Distribution: Addressee (1)
File (1)