October 11, 2018

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

Subject: Proposal for additional budget to complete Materials Testing Services
Las Olas Boulevard Corridor Improvements
Fort Lauderdale Beach, Intracoastal to SR A1A
Fort Lauderdale, Florida
WOOD Proposal Number: 6784.17.2958.02

Dear Mr. Green:

Wood Environment & Infrastructure Solutions, Inc. is pleased to present this proposal for additional funds to provide quality control field and laboratory testing services and Special Inspection Services for the remainder of 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, 409 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 police substation, marina operations and/or other future uses which may support economic development in the area. It will also include a transportation hub, restaurant lobby (shell) and bike lockers.

Scope of Services:

The scope of work and fee estimate presented herein is based on the email received from yourself on October 09, 2018 and our meeting which took place on October 04, 2018 at the site office, in addition to our review and interpretation of the City of Fort Lauderdale Project No. 11900 and bid set drawing dated 02/03/2017.

The additional budget would fund 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 WOOD's QC Manager or his representative, in addition to coordination and invoicing of our services by WOOD'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. Specification 120-9 Acceptance Program.
- Perform field density testing of embankment in accordance with the frequency stated in Section 120-9.6.
- Perform field density test of stabilizing subgrade in both cut and fills in accordance with Section 120-9.5.

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 FDOT Standard Specifications for Road and Bridge Construction.

- Certified technician will be present and perform tests throughout the placement operation at the frequency indicated in the FDOT specification. Including sampling, molding of compressive strength test specimens in 4 inch by 8 inch cylinders, plastic property testing (air content, temperature and slump), water/cement ratio calculation. Frequency will be per FDOT Specifications.

- 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 WOOD 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

WOOD 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. WOOD 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)
- Lime rock 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 number 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 5 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

ENGINEERING SERVICES

As part of our services, it should be understood that WOOD will make the Contractor aware if any means and methods deviate from the FDOT Specifications A Project Schedule must be provided to WOOD in order to efficiently manage labor force. WOOD will provide a QC/Project Manager to manage/assign WOOD 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 **$105,010.00**, as itemized in the table below.

Description	Quantity	Units	Unit Price	Total Price
Soils Testing				
In-situ density tests-Nuclear Gauge Method	350	Hour	$55.00	$19,250.00
Standard or Modified Proctor	5	Each	$150.00	$750.00
Lime rock Bearing Ration (LBR)	5	Each	$225.00	$1,125.00
Sieve Analysis	10	Each	$60.00	$600.00
Atterberg Limits	10	Each	$65.00	$650.00
Organic Content	30	Each	$35.00	$1,050.00
Trip Charge	83	Each	$60.00	$4,980.00
Concrete Testing				
Field Technician (ACI Certified)	430	Hour	$55.00	$23,650.00
Curing, Capping and Testing	300	Each	$15.00	$4,500.00
Air Content	60	Each	$15.00	$900.00
Trip Charge	118	Each	$60.00	$7,080.00

Paving Inspection and Asphalt Testing				
Senior Engineer Technician (CTQP Certified) Asphalt Plant and Paving	40	Hour	$65.00	$2,600.00
Trip Charge	5	Each	60.00	$300.00
Threshold Inspection Services				
Threshold Representative/Licensed Building Inspector (BN)/Roofing Consultant	200	Hour	$75.00	$15,000.00
Engineering Services				
Senior Engineer-Sign and Seal Reports/PM/Meeting	129	Hour	$130.00	$16,770.00
Clerical-preparation and distribution of laboratory test reports and invoicing	129	Hour	$45.00	$5,805.00

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, WOOD 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 WOOD and the Contractor.

Closing

Attached please find an estimate of $105,010.00 to perform the required 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 and tests performed 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 tests 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.

TERMS AND CONDITIONS

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. Our work does not include supervision or direction of the actual work of the contractor. Neither the presence of our field representative, nor the observation and testing by our firm, shall excuse the contractor in any way for defects discovered in his work. 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.

If you have any questions, or would like to further discuss this proposal and the project, please contact us at your convenience at 561-242-7713.

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 inspection services will be required during an approximate 9-month construction period. 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) WOOD 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 WOOD 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.

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

Sincerely,

WOOD Environment & Infrastructure Solutions, Inc.

Alexander Rojas, P.E.
Project Manager

Luis Ponce, P.E.
Senior Engineer