

CITY of NOVI CITY COUNCIL

**Agenda Item F
April 15, 2019**



SUBJECT: Approval to award geotechnical engineering services to Professional Service Industries, Inc. (PSI) for material testing services associated with the Crescent Boulevard (NW Ring Road) and Industrial Spur Road Construction project in the amount of \$89,620.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	\$ 89,620.00
AMOUNT BUDGETED	\$ 5,785,076
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	202-202.00-865.260

BACKGROUND INFORMATION:

Crescent Boulevard design plans were originally completed in 2010. In early 2019, the City’s Consultant Engineer, AECOM updated the design plans to adhere to the current Michigan Department of Transportation (MDOT) and the American Association of State Highway and Transportation Officials (AASHTO) design and construction standards. The City has an active MDEQ permit with the deadline of the beginning of June 2020 to begin construction. The MDEQ permit cannot be extended and would require a new application submittal if the proposed work within the Middle Rouge is not completed by July 1, 2020. The project features a 1,050-foot-long, four-lane boulevard extension from the intersection of Grand River Avenue to the intersection of future Adell Center Drive and the construction of a 650-foot- long industrial spur road to service the Comau Industrial Facility. The industrial spur road would also provide improved access to the General Filters site. As part of this project, there will also be rehabilitation work to replace deteriorated concrete pavement just west of Novi Road along existing Crescent Boulevard.

In accordance with the Agreement for Geotechnical Engineering Consultant Services for PSI has been selected to provide construction phase material testing services for the Crescent Boulevard (NW Ring Road) and Industrial Spur Road Construction project. The material testing services fees are determined using the fee percentage in Exhibit A of the Agreement for Geotechnical Engineering Services for Public Projects. The material testing services necessary for this project is in the amount of \$89,620.

Construction of the project was awarded at the April 1, 2019 City Council meeting. It is anticipated the project will be substantially completed by November 2019.

RECOMMENDED ACTION: Approval to award geotechnical engineering services to Professional Service Industries, Inc. (PSI) for material testing services associated with the Crescent Boulevard (NW Ring Road) and Industrial Spur Road Construction project in the amount of \$89,620.

Crescent Boulevard & Industrial Spur Construction

Location Map




Map Author: Joseph Akers
Date: March 13, 2019
Project: Crescent Boulevard & Industrial Spur
Version: 1

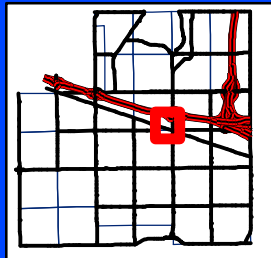
Amended By:
Date:
Department:

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

Legend

 New Road Construction



City of Novi

Engineering Division
Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org



1 inch = 429 feet



Professional Service Industries, Inc.
37483 Interchange Drive, Farmington Hills, Michigan 48335
Phone: (248) 957-9911

Mr. Joseph Akers
Staff Civil Engineer
26300 Lee BeGole Drive
Novi, MI 48375

RE: Construction Materials Testing and Observation Services
City of Novi – Crescent Blvd & Industrial Spur
PSI Proposal No: 0379-272856

Dear Mr. Akers:

Thank you for your interest in Professional Service Industries, Inc. (PSI), an Intertek company. The information you requested is provided below.

PSI proposes to provide experienced technical personnel to provide materials testing and construction observation services as requested by City of Novi via email dated January 18, 2019. PSI was provided access to the project drawings and specifications and a review of said documents was completed. The following areas are those where testing and observation services will be provided:

SCOPE OF SERVICES

Based upon your request and our current understanding of the project, we have outlined below a scope of services to provide construction materials testing, observation, and engineering services.

- Monitor earthwork cut and fill operations
 - Evaluate fill soils
 - Determine the moisture content and in-place dry density of engineered fill and backfill materials
 - Observe proof-rolling operations for subgrade preparation
- Foundation Construction
 - Observe, test and evaluate the bearing soils at the bottom of excavations for shallow foundations
 - Determine the suitability of bearing materials and verification of conditions shown in the geotechnical report
 - Observe the installation of deep foundations including H-piles and containment systems
- Cast-in-Place Concrete
 - Review contractors design mix for compliance with contract documents
 - Check the placement of steel reinforcing, if called for on the approved plans
 - Perform field tests to verify the conformance of the plastic concrete to specifications
 - Determine the compressive breaking strength of concrete cylinders molded in the field
 - Perform applicable laboratory testing

ALL-INCLUSIVE PROPOSED FEES

PSI has provided an all-inclusive per daily rate for our technicians to provide the requisite field testing services.





These rates are inclusive of **FIELD AND LABORATORY COORDINATION ACTIVITIES, REPORT REVIEW, FIELD EQUIPMENT USAGE, VEHICLE COSTS, SECRETARIAL SERVICES AND PROJECT MANAGEMENT**. Not included are engineering consultation and site visits. No minimum hour charge will be charged, unless work for the day is cancelled by the contractor without notice. Minimum "cancellation charges" will be limited to half day rates:

- For observing concrete placement, reinforcing steel installation, masonry installation, shallow foundation observation, earthwork, and HMA paving and to perform the necessary field testing by an experienced Engineering Technician for up to 8 hours. Special trips to retrieve concrete test cylinders / soil samples will be invoiced at the applicable hourly rate (minimum 2 hours):

- **Half Day Rate of \$300.00 per half day**

- **Daily Rate of \$600.00 per day**

PSI proposes to accomplish the work on a not to exceed price basis in accordance with the attached Project Estimate Sheet, and that the work will be performed pursuant to the General Conditions. Copies of the Project Estimate Sheet and General Conditions are enclosed and incorporated into this proposal. Our fees would be determined by the actual amount of technical time expended for each project on a portal to portal basis. The quantity and frequency of testing will be performed as outlined in the project specifications at the request and direction of our client.

Please note that our services do not include supervision or direction of the actual work. Also, be aware that neither the presence of our field representative nor the observation and testing by our firm shall imply PSI's responsibility for defects discovered in the construction work. It is understood that our firm will not be responsible for job or site safety on this project except for that of PSI's employees. Job site safety will be the sole responsibility of others.

Under the scope of work covered by this proposal, the words "inspection" and "verify" are used to mean observation of the work and the conducting of tests by PSI to determine substantial compliance with plans, specifications and design concepts. The term "continuous" as stated herein, shall mean the Technician/Inspector is on the site and in the general work area during the activity requiring observation and testing.

PSI's fees will be determined on the time and materials expended and the number of field and laboratory tests performed for this project. PSI's estimate assumes all work will be completed Monday through Saturday between the hours of 7:00 a.m. to 7:00 p.m. This project will be serviced from our Farmington Hills, Michigan office.

The total fee for our services is dependent on many factors, including duration of the project, actual hours worked, weather conditions, and subsurface conditions encountered. The above factors will also affect the amount of time that the project manager will be involved in the project.

We understand that less than full-time services may be required at various times on this project. Accordingly, we will only charge for the actual services provided.

Authorization

If this proposal is acceptable to you, Intertek-PSI will perform the work in accordance with the attached General Conditions that are incorporated into and made a part of this proposal. Please sign below as notice to proceed and return one copy of this proposal intact to our office. We will proceed with the work upon receipt of authorization. Prior to initiating our services, Intertek-PSI should be provided a complete set of the construction



plans and specifications.

Intertek-PSI appreciates the opportunity to provide construction materials testing, inspection and engineering services for your project and looks forward to working with you. Intertek-PSI provides additional consulting services, which include environmental services, geotechnical engineering and consulting, roof consulting and inspection services, pavement and asphalt testing services and specialty engineering and testing. The Intertek-PSI Michigan offices and full-service laboratories are in Detroit, Farmington Hills, Grand Rapids, Kalamazoo, Lansing, Saginaw, and Troy. If you have any questions, please feel free to call us at 248-957-9911 to discuss this proposal or any of the services listed above.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

**SCOTT A STANLEY
PROJECT ENGINEER / CONSTRUCTION SERVICES**

**MAHMOUD E. EL-GAMAL, PH.D., P.E., D.GE
CHIEF ENGINEER / VICE PRESIDENT**



PROPOSAL ACCEPTANCE:

AGREED TO, THIS	_____	DAY OF	_____	, 2019.
BY (please print):	_____			
TITLE:	_____			
COMPANY:	_____			
SIGNATURE:	_____			

PROJECT INFORMATION:

1. Project Name: _____
2. Project Location: _____
3. Your Job No: _____ Purchase Order No.: _____
4. Project Manager: _____ Telephone No.: _____
5. Site Contact: _____ Telephone No.: _____

6. Number and Distribution of Reports:

Name	Company	E-mail address

7. Invoicing Address: _____

 Attn: _____

8. Other Pertinent Information Or Previous Subsurface Information Available:



Project Estimate Sheet							
Item Quoted:		Construction Observation and Material Testing Services					
Quoted to:		Joseph Akers - Staff Civil Engineer					
Project Information:		Crescent Blvd & Industrial Spur					
		City of Novi					
<u>Item</u>		<u>Quantity</u>		<u>Unit</u>	<u>Rate</u>	<u>Totals</u>	
Soils and Earthwork Observation and Testing							
Engineering Field Technician		24	Half Days	at	up to 4 Hours	\$ 300.00	\$ 7,200.00
Engineering Field Technician		8	Full Days	at	up to 8 Hours	\$ 600.00	\$ 4,800.00
							\$ 12,000.00
Shallow Foundation Observation and Testing							
Engineering Field Technician		20	Half Days	at	up to 4 Hours	\$ 300.00	\$ 6,000.00
Engineering Field Technician		12	Full Days	at	up to 8 Hours	\$ 600.00	\$ 7,200.00
							\$ 13,200.00
Cast-in-Place Concrete/Slab-On Grade							
Engineering Field Technician		48	Half Days	at	up to 4 Hours	\$ 300.00	\$ 14,400.00
Engineering Field Technician		35	Full Days	at	up to 8 Hours	\$ 600.00	\$ 21,000.00
							\$ 35,400.00
Sheet & H-Piles Observation							
Engineering Field Technician		25	Half Days	at	up to 4 Hours	\$ 300.00	\$ 7,500.00
Engineering Field Technician		25	Full Days	at	up to 8 Hours	\$ 600.00	\$ 15,000.00
							\$ 22,500.00
Project Setup Fee							
						\$ 600.00	\$ 600.00
							\$ 600.00
Laboratory Tests							
Moisture/Density Relationship (ASTM D1557)		4			each	\$ 210.00	\$ 840.00
Sieve Analysis (ASTM C136)		4			each	\$ 90.00	\$ 360.00
Asphalt Extraction/Gradation		0			each	\$ 275.00	\$ -
Concrete Compressive Strength (ASTM C39)		295			each	\$ 16.00	\$ 4,720.00
Masonry Compressive Strength (ASTM C780,		0			each	\$ 24.00	\$ -
Fireproofing Bond Strength/Density (ASTM E736,		0			each	\$ 75.00	\$ -
							\$ 5,920.00
TOTAL							\$ 89,620.00