



February 22, 2019

City of Beacon  
One Municipal Plaza  
Beacon, New York 12508

Attn: Mr. Anthony Ruggiero, City Administrator

Re: PIN 8761.25 Main Street Pedestrian Improvements  
PIN 8761.45 Beacon Pedestrian Signal Development  
Construction Inspection Services

Dear Mr. Ruggiero:

Attached please find our cost proposal and scope to add construction inspection services to the Main Street Pedestrian Improvements and Pedestrian Signal Development projects. In order to offer the most cost effective services to the City, we propose to use one inspection team to oversee both projects simultaneously.

The scope employs the NYSDOT's requirements for federal-aid local projects. As discussed, the federally funded projects require complete oversight during construction to ensure the project is built according to the plans and specifications and extensive documentation.

Thank you very much for considering us for the inspection services. We look forward to continuing working with you and the City.

If you have any questions, please call me.

Sincerely,

HVEA Engineers

A handwritten signature in blue ink, appearing to be "JG", written over a light blue horizontal line.

Jack Gorton, P.E.  
Project Manager

## **Section 9 - Construction Inspection**

### **9.01 Equipment**

The **Contractor** will furnish office space and basic office furnishings for the **Consultant**, as part of the contract.

The **Consultant** will furnish all other office, field and field laboratory supplies and equipment required to properly perform the inspection services listed below.

### **9.02 Inspection**

The **Consultant** must provide, to the satisfaction of the **Sponsor**, contract administration and construction inspection services from such time as directed to proceed until the completion of the final agreement and issuance of final payment for the contract. The **Consultant** must assume responsibility, as appropriate, for the administration of the contract including maintaining complete project records, processing payments, performing detailed inspection work and on-site field tests of all materials and items of work incorporated into the contract consistent with federal policies and the specifications and plans applicable to the project.

### **9.03 Municipal Project Manager**

This Project Manager will be the **Municipality's** official representative on the contract and the **Consultant** must report to and be directly responsible to said Project Manager.

### **9.04 Ethics**

Prior to the start of work, the **Consultant** will submit to the **Sponsor** a statement regarding conflicts of interest.

### **9.05 Health and Safety Requirements**

The **Consultant** must provide all necessary health and safety related training, supervision, equipment and programs for their inspection staff assigned to the project.

### **9.06 Staff Qualifications and Training**

The **Consultant** must provide sufficient trained personnel to adequately and competently perform the requirements of this agreement. The **Consultant** will recommend inspectors to the Sponsor for approval prior to their assignment to the project. Resumes, proof of required certification and the proposed initial salary shall be furnished. The Sponsor may want to interview before approval, and reserves the right to disapprove any application. The employment of all consultant personnel is conditional, subject to satisfactory performance, as determined by the Sponsor.

For all construction inspection agreements, it is mandatory that all technician personnel be identified by the National Institute for Certification in Engineering Technologies (NICET) certification levels in the staffing tables. In addition, all Transportation Engineering Technicians-Construction assigned to the project at and above level III, Engineering and Senior Engineering Technicians, must be certified by NICET. Transportation Engineering Technicians-Construction below level III assigned to the project must have successfully

completed the General Work Element requirements and at least those Special Work Elements which apply to their specific project assignments at the level of their rating.

In lieu of the NICET certification requirements, the Sponsor may accept evidence that the person proposed for employment (1) has satisfactorily performed similar duties as a former NYS Department of Transportation (NYSDOT) employee or (2) has a combination of education and appropriate experience commensurate with the scope of the position in question.

Technicians employed by the **consultant** that perform field inspection of Portland cement concrete shall possess a current certification from the American Concrete Institute (ACI) as a Concrete field-testing Technician-Grade 1, or have completed all of the following NICET work elements, which are equivalent to the ACI certification:

NICET LEVEL	NICET CODE	NICET WORK ELEMENT
I	82019	Sample Fresh Concrete
I	82020	Slump Test
II	84068	Air Content, Pressure
II	84069	Air Content, Gravimetric
II	84070	Air Content, Volumetric
II	84076	Field Prepared Test Specimens

Inspectors designated as the responsible person in charge of work zone traffic control must have sufficient classroom training, or a combination of classroom training and experience, to develop needed knowledge and skills. Acceptable training should consist of a formal course presented by a recognized training program which includes at least two full days of classroom training. A minimum of two days classroom training is normally required, although one day of classroom training plus responsible experience may be considered. Recognized training providers include American Traffic Safety Services Association (ATSSA), National Safety Council (NSC), Federal Highway Administration's National Highway Institute (FHWA-NHI), and accredited colleges and universities with advanced degree programs in Civil/Transportation/Traffic Engineering. Former DOT employees may be considered on the basis of at least one day of formal classroom training combined with responsible M&PT experience.

Technicians employed by the **consultant** who perform field inspection of geotechnical construction (earthwork), including, but not limited to embankment construction, subbase placement, structure and culvert backfill placement, and testing of earthwork items for in-place density and/or gradation, shall possess a current certification and/or proof of training from the following organization:

North East Transportation Technician Certification Program (NETTCP) Soils and Aggregate Inspector Certification. An alternative to the certification/training listed above would be proof of previous training (within the past 5 years) of the NYSDOT Earthwork Inspectors School,

given by the Department's Geotechnical Engineering Bureau.

## 9.07 Scope of Services/Performance Requirements

### A. Quality

The Consultant will enforce the specifications and identify in a timely manner to the **Sponsor** local conditions, methods of construction, errors on the plans or defects in the work or materials which would conflict with the quality of work, and conflict with the successful completion of the project.

### B. Record Keeping & Payments to the Contractor

- 1) All records must be kept in accordance with the directions of the **Sponsor and must be consistent with the requirements of the [NYSDOT Manual of Uniform Recordkeeping \(MURK\)](#)**.<sup>1</sup> The **Consultant** must take all measurements and collect all other pertinent information necessary to prepare daily inspection reports, monthly and final estimates, survey notes, record plans showing all changes from contract plans, photographs of various phases of construction, and other pertinent data, records and reports for proper completion of records of the contract.
- 2) Any record plans, engineering data, survey notes or other data provided by the Sponsor should be returned to the Sponsor at the completion of the contract. Original tracings of record plans, maps, engineering data, the final estimate and any other engineering data produced by the Consultant will bear the endorsement of the Consultant. Any documents that require an appropriate review and approval of a Professional Engineer (P.E.) licensed and registered to practice in New York State must be signed by the P.E.
- 3) Unless otherwise modified by this agreement, the **Sponsor** will check, and when **acceptable**, approve all structural **shop drawings**.
- 4) The **Consultant** must submit the final estimate of the contract to the **Sponsor** within four (4) weeks after the date of acceptance of the contract. All **project records** must be cataloged, indexed, **packaged**, and delivered to the **Sponsor** within five (5) weeks after the date of the acceptance of the contract.

### Health & Safety/Work Zone Traffic Control

- 1) The **Consultant** must ensure that all inspection staff assigned to the project are knowledgeable concerning the health and safety requirements of the contract per **Sponsor** policy, procedures and specifications and adhere to all standards. Individual inspectors must be instructed relative to the safety concerns for construction operations they are assigned to inspect to protect

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<sup>1</sup> <https://www.dot.ny.gov/main/business-center/contractors/construction-division/forms-manuals-computer-applications-general-information>

their personal safety, and to ensure they are prepared to recognize and address any contractor oversight or disregard of project safety requirements.

- 2) The **Consultant** is responsible for monitoring the Contractor's and Subcontractor's efforts to maintain traffic and protect the public from damage to person and property within the limits of, and for the duration of the contract.

#### Monitoring Equal Opportunity/Labor Requirements

The **Consultant** must assign to one individual the responsibility of monitoring the Contractor's adherence to Equal Opportunity and Labor requirements contained in the contract. When monitoring the Contractor's Equal Opportunity and Labor compliance, the Consultant, will utilize the guidance contained in the contract, standard specifications and the **Sponsor's** policies. The Consultant is also to input required disadvantaged business enterprise (DBE) information into the NYSDOT maintained [Equitable Business Opportunities \(EBO\) database](https://www.dot.ny.gov/dotapp/ebo)<sup>2</sup>.

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<sup>2</sup> <https://www.dot.ny.gov/dotapp/ebo>

## **Section 10 - Estimating and Technical Assumptions**

### **10.01 Estimating Assumptions**

The following assumptions have been made for estimating purposes:

Section 9 Construction Inspection will include but not be limited to:

- Providing on-site construction inspection and oversight to ensure the quality of construction and conformity with the final plans and specifications.
- Preparation of as-built plans.

Estimate construction will begin on June 1, 2019 and will be completed by November 30, 2019.

HVEA will staff the project with:

- 1 Full time Resident/Office Engineer
- 1 Project Engineer as-needed
- 1 Full time Inspector

HVEA will provide cell phones for inspectors' use.

Laptops, printers and other technology items will be provided by the Contractor under the Office Technology item.

HVEA will provide APPIA management software as a direct non-salary cost in this contract.

An 11x17 color scanner/photocopier will be included by the Contractor under the field office item.

High speed internet access will be provided by the Contractor as part of the field office item.

HVEA's Project Engineer will review shop drawings and submittals.

HVEA will provide nuclear gauge testing for backfilling operations.

HVEA will provide concrete testing for all concrete pours.

Exhibit A, Page 1  
Salary Schedule

JOB TITLE	ASCE (A) OR NICET (N)	AVERAGE ENGINEERING SALARY RATES		
	GRADE	PRESENT	PROJECTED	OVERTIME
		(02/19)	(07/19)	CATEGORY
Project Manager	VI (A)	\$76.00	\$76.00	A
Resident/Office Engineer	IV (A)	\$52.00	\$52.00	C
Project Engineer	IV (A)	\$48.00	\$48.00	B
Chief Inspector	IV (N)	\$47.14	\$47.14	C
Office Engineer	III (N)	\$45.00	\$45.00	C
Senior Inspector	III (N)	\$41.00	\$41.00	C
Inspector	II (N)	\$31.00	\$31.00	C

OVERTIME POLICY

- Category A - No overtime compensation.  
Category B - Overtime compensated at straight time rate.  
Category C - Overtime compensated at straight time rate x 1.50.

Exhibit A, Page 2  
Staffing Table

JOB TITLE	ASCE OR NICET GRADE	2019										2020			Hours	Rate	Premium Portion of Overtime	Direct	Labor
		A	M	J	J	A	S	O	N	D	J	F	M						
Project Manager	VI (A)													0	\$76.00			\$0.00	
Resident/ Office Engineer	IV (A)		80	168	168	168	168	168	168	80				1168	\$52.00			\$60,736.00	
Overtime														0	\$52.00	\$0.00		\$0.00	
Project Engineer	IV (A)			16	16	16	16	16	16					96	\$48.00			\$4,608.00	
Chief Inspector	IV (N)													0	\$47.14			\$0.00	
Office Engineer	III (N)													0	\$45.00			\$0.00	
Senior Inspector	III (N)													0	\$41.00			\$0.00	
Overtime														0	\$41.00	\$0.00		\$0.00	
Inspector	II (N)			80	168	168	168	168	80					832	\$31.00			\$25,792.00	
Overtime				4	8	8	8	8	4					40	\$31.00	\$620.00		\$1,240.00	
															2,136		\$620.00		\$92,376.00



Exhibit B, Page 1  
Estimate of Direct Non-Salary Cost

1. TRAVEL

a) On-Job Travel -				
1 inspectors x 21 days/month x	6 months x	10 miles/day =	\$1,260.00	
Total On-Job Travel-	1,260 mi. x	\$0.545 /mi.=	\$686.70	

SUBTOTAL, TRAVEL \$686.70

b) Material Testing - as needed

SERVICES	RATE	UNIT	APPROX QTY	APPROX PRICE
CONCRETE FIELD TESTING:				
1 Technician: Complete Field Testing; Including Slump, Air, Temperature, Unit Weight, and Casting Cylinders (ACI Grade I Certified Staff)*	\$	488.00 day	4	\$ 1,952.00
2 Compressive Strength Test of Cylinder; Per Cast, Cast by HVEA (ASTM C39)	\$	16.00 each	24	\$ 384.00
EARTHWORK TESTING:				
1 Sieve Analysis of Soil (ASTM D6913)	\$	65.00 each	2	\$ 130.00
2 Wash Sieve Analysis of Soil (ASTM D1140)	\$	37.00 each	2	\$ 74.00
3 Particle Size Analysis with Hydrometer (ASTM D422)	\$	125.00 each	2	\$ 250.00
4 Proctor Analysis (ASTM D698/D1557)	\$	210.00 each	2	\$ 420.00
5 Organic Content (ASTM D2974)	\$	35.00 each	2	\$ 70.00
6 pH of Soil (ASTM D4972)	\$	15.00 each	2	\$ 30.00
7 Flat and Elongated Particles (ASTM D4791)	\$	75.00 each	2	\$ 150.00
8 Atterberg Limits (ASTM D4318)	\$	90.00 each	2	\$ 180.00
9 Magnesium Sulfate Soundness (4 Cycles) (ASTM C88)	\$	200.00 each	2	\$ 400.00
10 Technician (Up to 8 Hours Onsite): Compaction Testing with Nuclear Density Gauge (Certified Technician)*	\$	488.00 day	0	\$ -
11 Daily Gauge Fee, Per Gauge (Unlimited Tests)	\$	75.00 day	4	\$ 300.00
TRAVEL:				
1 Travel (Round Trip - Includes Labor & Mileage)	\$	72.50 trip	4	\$ 290.00
2b Sample Pickup, On Site - Roundtrip	\$	130.00 trip	4	\$ 520.00
2c Sample Pickup, at Location Off Site (Billed Portal-to-Portal, Plus Mileage at the Current IRS Mileage Rate)	\$	55.00 hour		\$ -
PROFESSIONAL STAFF:				
1 Project Management (Client Coordination, Review Results and Reports)	\$	140.00 hour	2	\$ 280.00
2 Professional Engineer	\$	210.00 hour		\$ -

\*Prices are per technician, per eight (8) hour day between the hours of 6AM and 4PM; Saturday and night rates will be charged at 1.5 times the unit rate. Sunday and Holiday rates will be charged at 2 times the unit rate.

SUBTOTAL, MATERIAL TESTING \$5,430.00

c) Construction Management Software

14 inspector Months - Appia Construction Estimating Software @	\$158.33 per month	\$2,216.62
1 Inspectors *6 month project = 6		
1 Resident/Office thru close out *8 month project = 8		

SUBTOTAL, SOFTWARE \$2,216.62

TOTAL DIRECT NON-SALARY COST \$8,333.32

Exhibit C  
Summary

	Total	PIN 8761.25 80%	PIN 8761.45 20%
Item IA, Direct Technical Salaries (estimated) subject to audit	\$ 92,376.00	\$ 73,900.80	\$ 18,475.20
Item IA, Direct Technical Salaries, Premium Portion of Overtime (estimated) subject to audit	\$ 620.00	\$ 496.00	\$ 124.00
Item II, Direct Non-Salary Cost (estimated) subject to audit	\$ 8,333.32	\$ 6,666.66	\$ 1,666.66
Item III, Overhead, 117% subject to audit	\$ 108,079.92	\$ 86,463.94	\$ 21,615.98
Item IV, Fixed Fee (12%) (applied to Items IA & III)	\$ 24,054.71	\$ 19,243.77	\$ 4,810.94
<b>Total:</b>	<b>\$ 233,463.95</b>	<b>\$ 186,771.16</b>	<b>\$ 46,692.79</b>