



**Contract No. 20180234  
Amendment No. 3**

**City of Springfield Contract Tracer Log**

**INSTRUCTIONS:** Upon receipt, please initial and write in the date of receipt on this Tracer form. When your department has approved and signed the blanket contract, please initial and date in the forwarding section and deliver to the next department.

DEPARTMENT	DATE RECEIVED		DATE FORWARDED TO NEXT DEPT.	
	Initials	Date	Initials	Date
Office of Procurement	TGT	10/31/19	TGT	10/31/19
Capital Assets	JL	11/1/19	PK	11/1/19
City Comptroller	LLK	11.12.19	LLK	11.12.19
Law	FF	11.13.19	FF	11.13.19
CAFO	mm	11.14.19	mm	11.19.19
Mayor	JL	11/19/19	JL	11/19/19
Office of Procurement	TGT	11/20/19	TGT	11/20/19

Vendor No.: 6824    Contract Number: 20180234    Amend Amt.: \$181,840.00 (Inc.)

Amend Date: 6/10/24/19    Contract. Date: 9/1/17    Expiration Date: 8/31/20

Requisition No.: 20006920    P.O. No:    Acct No: 26451811-530105-64516

Vendor Name: GZA Geo-Environmental Inc.

Contract Purpose: CONSULTING SERVICES FOR HYDRO PLANT AT WATERSHOPS

Requesting Dept.: DCAC

TYPE OF DOCUMENT (Please select at least one):

- New   
  Amendment   
  Extension   
  Renewal

**AMENDMENT No. 3 TO CITY CONTRACT NO: 20180234  
CONSULTING SERVICES FOR HYDRO PLANT AT WATERSHOPS**

WHEREAS, on or about September 1, 2017, the **CITY OF SPRINGFIELD**, a municipal corporation within the County of Hampden, Commonwealth of Massachusetts, with its principal offices at 36 Court Street, Springfield, Massachusetts 01103, acting by and through its Director of Capital Asset Construction, with approval from its Mayor, and **GZA ENVIRONMENTAL** (hereafter the "Engineer"), a corporation with a business mailing address at **1350 Main Street, Suite 1400, Springfield, MA 01103** (hereinafter called the "Designer") entered into a Contract Agreement referred to as **City Contract No. 20180234** (the "Agreement"), to provide Professional Designer/Consulting Services for the Watershops Pond Hydropower Design; and

WHEREAS, the City retained the services of the Designer on the terms and conditions set forth in this Agreement and the DESIGNER has agreed to accept such retainer after being selected as the top ranked proposer from the City's Request for Proposals Qualifications performed pursuant to MGL Ch. 7C § 38-44; and

WHEREAS, the original agreement was executed for an amount not to exceed One Hundred Ninety Six Thousand Dollars and 00/100 (\$196,000.00), and the City now wishes to extend the scope of services and corresponding contract value to include additional scopes of service not included in the original Agreement that include a feasibility study, and other Phase II scopes of service that will address the future programmatic needs and services of the residents of the City of Springfield, (the additional scope of services is attached as **Exhibit A** to this Amendment); and

WHEREAS, the City and the Engineer had previously negotiated and executed **Amendment No. 1** to the Agreement, which increased the scope of services and corresponding contract compensation amount to an updated not to exceed amount of Two Hundred Sixty Four Thousand Two Hundred Dollars and 00/100 (\$264,200.00) for all scopes of work; and

WHEREAS, the City and the Engineer had previously negotiated and executed **Amendment No. 2** to the Agreement, which increased the scope of services and corresponding contract compensation amount to an updated not to exceed amount of Eight Hundred Seven Thousand Five Hundred Eighty Dollars and 00/100 (\$807,580.00) for all scopes of work, as amended; and

WHEREAS, due to in project scope and a need for an increased level of services required, the City and the Engineer have now agreed to modify the scope and cost of the services contained in the Agreement through this **Amendment No. 3**;

NOW THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto mutually agree to amend the Agreement as follows:

1. ARTICLE I, SCOPE OF SERVICES, is amended by adding/modifying the

following scope of services:

- i. Task 1- Project Kickoff/Field Review-
- ii. Task 2- Subsurface Explorations/Geotechnical Recommendations
- iii. Task 3- Schematic Design and Interconnection Application
- iv. Task 4- 50% Design Improvements
- v. Task 5- 100% Construction Documents
- vi. Task 6- Bidding Evolution/Contractor Selection Support
- vii. Task 7- Designer Services During Construction
- viii. Task 8- System Commission
- ix. Task 9- Misc. Meetings and Tasks
- x. Task 10 Specific Fees/Interconnection Application

All additional tasks, including timelines for completion and complete descriptions, are described in the attached **Exhibit A**.

2. **ARTICLE IV, COMPENSATION**, is amended by increasing the total financial obligation of the City by **(One Hundred Eighty One Thousand Eight Hundred Forty Dollars and 00/100 (\$181,840.00))**, making the new total compensation available under the agreement **(Nine Hundred Eighty Nine Thousand Four Hundred Twenty Dollars and 00/100 (\$989,420.00))**. These changes are reflected for the costs of the additional Tasks 1-10, as well as other scope increases and modifications described in the attached **Exhibit A**.

3. Engineer is to be bound to all of the additional terms, conditions, covenants, and obligations as described in the attached **Exhibit A**, which is incorporated herein by reference.

3. Except as specifically modified and amended by the provisions of this Amendment No. 3, all other terms, provisions, requirements and specifications contained in the Agreement shall remain the same and in full force and effect.

IN WITNESS WHEREOF, the CITY OF SPRINGFIELD, acting by and through the Director of DCAC, with the approval of its Mayor, and the Consultant, have executed this Amendment No. 3 to the Agreement on the day and year the same is signed by all necessary parties, on the latest date listed below.

THE CONSULTANT,  
GZA Environmental:

By: Tom E. Jenks  
Its: Vice President  
Date signed: 10.30.2019

THE CITY OF SPRINGFIELD:

Approved: [Signature]  
Executive Director, DCAC

Approved: [Signature]  
Office of Procurement

Approved as to Appropriation:  
[Signature] <sup>10/21/19</sup>  
Comptroller, Deputy  
org/obj #  
26541811.530105.64516  
increase: \$181,840.-

Approved as to Form:  
[Signature]  
City Solicitor

Reviewed:  
[Signature]  
CAFO, deputy

APPROVED:  
[Signature]  
DOMENIC J. SARNO  
MAYOR  
Date signed: 11/21/19

# Exhibit A



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GEOTECHNICAL  
ENVIRONMENTAL  
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CONSTRUCTION  
MANAGEMENT

1350 Main Street  
Suite 1400  
Springfield, MA 01103  
T: 413.726.2100  
F: 413.732.1749  
www.gza.com



October 23, 2019  
15.P000133.20

Peter J. Garvey, Director  
City of Springfield - Department of Capital Asset Construction (DCAC)  
36 Court Street, Room 312  
Springfield, MA 01103

Re: **Proposal for Continued Professional Consulting Services**  
Design, Bidding, & Designer Services During Construction for  
Renewable Energy and Storage at Elias Brookings School  
HUD NDRC Grant  
Springfield, MA

Dear Mr. Garvey:

GZA GeoEnvironmental, Inc. (GZA) is pleased to submit to the City of Springfield (the City, DCAC) this Proposal for professional consulting services to provide engineering design, bid-phase services, and designer services during construction for the proposed **Renewable Energy and Storage at Elias Brookings School** (the Project, the School). This Proposal is made pursuant to the City's request, which follows GZA's completion of the *Renewables Feasibility Report*, February 25, 2019, and US Department of Housing and Urban Development's (HUD) August 19, 2019, Substantial Amendment Approval letter.

The Project was outlined within the "*Renewables Feasibility Report – Part B: Feasibility Study for Renewable Energy At Elias Brookings School*," which provided an AACE Class 4 cost opinion for the preferred alternative, including installation of roof-mount and carport Photovoltaics (PV) systems and on-site energy storage at the Elias Brookings School located at 433 Walnut Street in Springfield, Massachusetts. The *Part B: Feasibility Study* provided a description of the improvements and the engineering design and permitting requirements, all of which have been further detailed and expanded upon in the Scope of Services proposed herein.

To assist GZA in the required services, we have assembled a highly-qualified team of subconsultants. The GZA Team includes the following:

- Solar Design Associates, Inc. (SDA); Harvard, MA (solar and electrical engineering)
- Drummev Rosane Anderson, Inc. (DRA); Waltham, MA (architecture / procurement support)
- Engineers Design Group, Inc. (EDG); Malden, MA (structural engineering)

**SCOPE OF SERVICES**

GZA proposes the following Scope of Services, which will build upon the previously-completed work to support accomplishment of the Project goals.

**TASK 1. PROJECT KICKOFF / FIELD REVIEW**

The GZA Team will review prior reports and associated documentation for the School and the Project, including the pertinent information assembled within the *Renewables Feasibility Report*.



The GZA Team will meet City representatives at the School to review the design goals and elements of the proposed Renewable Energy and Storage at the School. Discussions will include Project roles and responsibilities, overall sequence and schedule of tasks, information to be gathered, and a field review of preliminary locations for associated Project infrastructure including inverters, “balance-of-system” components, energy storage, and the desired point of interconnection.

**Task 1. Deliverables:**

1. GZA will produce a Report of Review Meeting, itemizing discussion topics and identifying action items for the various parties.

**TASK 2. SUBSURFACE EXPLORATIONS / GEOTECHNICAL RECOMMENDATIONS**

GZA will design and execute a program of subsurface explorations consisting of up to two days of drilling and completion of up to four (4) test borings along the proposed alignment of the carport solar installations within the parking lot north of the School building. Test borings will be advanced by a driller under subcontract to GZA. It is anticipated that the test borings will be advanced up to about 20-25 feet below the ground surface or to refusal, if shallower. We have budgeted two (2) rig days to complete the subsurface explorations.

Borings will be advanced by hollow stem auger. Standard penetration tests with sample collection will be performed on a continuous basis for the first 5-10 feet to ensure any artificial fill is characterized and at five-foot intervals (or less) thereafter. The test boring program will be performed under the fulltime observation of a GZA field engineer/scientist to classify and log the samples, and to make adjustments to the program based on the conditions encountered. Up to three (3) laboratory grain size analysis tests will be performed on selected soil samples to aid in the visual classification and to assign engineering properties to the soil conditions encountered. Boring logs and laboratory test results will be included in the construction contract documents. GZA will prepare a report of findings and recommendations for load-bearing support systems and allowable loading, to be used in further design and by the Contractor’s selected carport PV racking and support systems manufacturer, who will provide final stamped Construction Documents for the Contractor to use in obtaining building permits.

**Task 2. Deliverables:**

1. Geotechnical Report of Findings, with boring logs and laboratory test results.

**TASK 3. SCHEMATIC DESIGN & INTERCONNECTION APPLICATION**

The GZA Team will identify any modifications to the technical conclusions of the *Part B: Feasibility Study* that may impact the design of the project and discuss these with the City. The GZA Team will finalize the program goals and prepare an updated schematic site plan and single line of the proposed rooftop and canopy PV systems with AC coupled energy storage system (ESS) for review by the City’s Project team. The GZA Team will propose a PV module, inverter manufacturer, ESS, and racking system to be included as the basis of design for the system. The GZA Team will also define the general arrangement and ‘balance-of-system’ equipment locations and proposed method of interconnection to the existing electrical infrastructure.

Once the schematic system design is reviewed and approved by the City’s Project team, the GZA Team will prepare the technical information to support the system Interconnection Application to the local utility (Eversource) including a drawing package signed-and-sealed by a Professional Electrical Engineer licensed to practice in Massachusetts. The GZA Team will complete the non-technical portions of the application on behalf of the City including obtaining signatures from the appropriate City of Springfield representatives.



An Interconnection Application fee will be due to Eversource at the time of submitting the application. Submitting the final application will be the responsibility of GZA. The application fee is anticipated to be \$1,000 and will be paid directly by GZA on behalf of the City—see application fee budget allocations in Task 10., below. A fee for the utility production meter will be due to the utility prior to project closeout. This is anticipated to also be \$1,000 but is not fully known at the time of this proposal. This fee will also be the responsibility of GZA under Task 10.

Upon receipt of the Interconnection Services Agreement (ISA) from Eversource, the GZA Team will assist the City in applying for the Solar Massachusetts Renewable Target ('SMART') incentive program. The GZA Team will generate the application on the web-based portal and complete the technical portions of the application. GZA will complete the non-technical portions of the application with assistance from the City, including obtaining signatures from City representatives. Submitting the final application will be the responsibility of GZA. The application fee is anticipated to be less than \$1,000 and will be the responsibility of GZA under Task 10.

### Task 3. Deliverables:

1. Signed-and-sealed schematic system design and technical content to support the utility Interconnection and SMART incentive applications. All deliverables will be provided in the form of PDF files and/or on-line electronic submittals. All deliverables will be transmitted electronically. Wet-stamped, signed-and-sealed engineering documents can be provided at cost plus 10%.

### **TASK 4. 50% DESIGN DEVELOPMENT**

Based on the completion and approval of the work under Phase 1, the GZA Team will develop Design Development Documents (DDs) including draft CSI-format Specifications to support the project bidding. The GZA Team will work with the City's Project team to finalize the location for the solar balance-of-system equipment, conduit runs and interface of the solar system with the school's existing electrical equipment / conditions.

The GZA Team will define and specify a web-accessible data acquisition and performance monitoring system for the installation. The data acquisition system (DAS) will provide web-accessible, real-time and archived historical performance data on the solar harvest from the installed system. The DAS design will include a monitor display with a slide show providing a description of all real-time parameters along with current AC power output, daily / monthly / lifetime energy production, aggregate CO2 abatement, and an estimate of equivalent trees planted. The GZA Team will specify the hardware for this display for the Contractor to furnish and install within the school building (e.g., in the lobby).

The GZA Team will prepare a structural evaluation report for the school building, relative to support systems for the rooftop PV. GZA's report will include recommendations for load-bearing support systems and allowable loading, to be used by the Contractor's selected rooftop PV racking and support systems manufacturer, who will provide final stamped Construction Documents for the Contractor to use in obtaining building permits.

The City will review the Design Development documents and provide a single set of coordinated revisions and comments for the GZA Team to incorporate into the Construction Documents under Task 5. Design Development documents will include a schematic design of the ballasted rooftop system from PanelClaw or similar vendor and a schematic design of the parking canopy system from RBI or similar vendor. Any design fees associated with producing these documents will be the responsibility of GZA.

Up to two (2) Site or City-office meetings with the GZA Team and the City of Springfield are included in Task 4.





**Task 4. Deliverables:**

1. Design Development drawings and draft system Specifications for review and comment. All deliverables will be provided in the form of PDF files. All deliverables will be transmitted electronically. Wet-stamped, signed-and-sealed engineering documents can be provided at cost plus 10%.

**TASK 5. 100% CONSTRUCTION DOCUMENTS**

The GZA Team will work with the City to incorporate revisions and comments from the City. The GZA Team will finalize the major components as the Basis of Design for the system and will identify up to three manufacturers as 'or-equal' options for the primary components for inclusion into the bid document package. The GZA Team will finalize the system design and engineering to provide a 90% set of Construction Documents including CSI-format Specifications for all aspects of the proposed PV systems addressing the input and all technical information received from the Project Team. GZA will submit the 90% Construction Documents to the City to review.

The City will review the 90% Construction Documents and provide a single set of coordinated revisions and comments for the GZA Team to incorporate into the final 100% Construction Documents prior to the release for permitting and construction. The 100% Construction Documents will include schematic design sets from Panel Claw and RBl for the rooftop array and canopy array, respectively. Obtaining stamped Construction Documents from the racking manufacturers shall be the responsibility of the installing Contractor.

As an integral part of the GZA Team, SDA will serve as Engineer-of-Record for the solar systems and provide signed and sealed Initial Construction Control Affidavit for the electrical portion of the PV systems.

Up to three (3) Site or City-office meetings with the GZA Team and the City of Springfield are included in Task 5.

**Task 5. Deliverables:**

1. 90% complete Construction Documents including CSI-format Specifications for the systems for final review,
2. 100% Construction Documents including CSI-format Specifications for the systems. All deliverables will be provided in the form of PDF files. All deliverables will be transmitted electronically. Wet-stamped, signed-and-sealed engineering documents can be provided at cost plus 10%.

**TASK 6. BIDDING, EVALUATION / CONTRACTOR SELECTION SUPPORT**

GZA will assist the City in the preparation of the overall bid documents to solicit bids from qualified Contractors to construct the system. GZA will incorporate 100% Construction Drawings, schematic drawings from the racking manufacturers, and the accompanying CSI-format specifications as part of the bid documents. The GZA Team will coordinate with the Springfield Office of Procurement regarding bidding format and procedures, and we anticipate bidding under Massachusetts Chapter 149 included filed sub-bids.

The GZA Team will attend and conduct a pre-bid meeting at the School site, prepare written responses to Bidder questions, and develop bid addenda, as necessary.

The GZA Team will assist the City in reviewing the bid responses from the Contractors to verify that their proposals meet the intent of the system Basis of Design and to identify strengths and weaknesses within each proposal. GZA will make a written bid award recommendation. The Scope of Work defined in the bid will require the Contractor to submit any requested changes to the basis of design to the racking systems for approval by the City's Project team. The



Contractor shall be responsible for obtaining signed-and-sealed construction documents from the racking manufacturers for permitting and construction. The Contractor shall be responsible for procurement of all materials and construction of the solar systems in compliance with the approved Construction Documents, compliance with the latest version of the National Electric Code, and compliance with other pertinent codes and standards.

Up to one (1) Site or City-office meeting with the GZA Team and the City of Springfield is included in Task 6.

**Task 6. Deliverables:**

1. Development of technical documentation to include in advertising the project for bid.
2. Responses to bidder questions, as required.
3. Bid addenda, as required.
4. Assistance in ranking of proposals, and written bid award recommendation. All deliverables will be provided in the form of PDF files.

**TASK 7. DESIGNER SERVICES DURING CONSTRUCTION**

The GZA Team will provide the City with Designer Services During Construction (DSDC). In general, these services will involve a GZA Project Manager attending project meetings, responding to Contractor Requests for Information (RFIs), reviewing Contractor submittals for conformance with the contract documents, and issuance of supplemental instructions. An assumed level of effort (without major unexpected conditions) has been used to prepare the budget estimate. Included in the estimate is GZA project management time and the efforts of the GZA Principal-in-Charge in overseeing the Project as a whole. In conjunction with field observation as may be provided by the City and our reliance on their observations and assessments of conformance to the drawings and specifications, these services will allow the GZA Team to function as the Engineer-of-Record for the Project.

**Task 7.1. Final System Design Review:**

Once a Contractor has been selected, the GZA Team will review the final system design documents and submittals prepared by the City-selected Contractor to verify that the final designs satisfy the goals of the Project Team and comply with applicable code and utility requirements.

**Task 7.2. Meeting Attendance:**

A GZA Project Manager or other senior personnel under their direct supervision will attend up to ten (10) project meetings at the site on behalf of the City, including:

- The Project Kick-off Meeting will be used to discuss the Contractor schedule, submittals, RFIs, and resident engineering (note that resident engineer services are not included in this proposal).
- The Project Close out meeting will serve as the Punch List walk through to view the Site with the City and the Contractor to discuss any unresolved issues.
- Routine Construction Progress Meetings will be held at the site as necessary to review Contractor's progress, conditions at the site, and prior to the start of any significant or otherwise important stages of construction. We have assumed an active construction period of 12 weeks, with meetings averaging once per 1.5 weeks.

GZA will prepare and distribute meeting minutes from each meeting. The meetings will be attended by GZA's Project



Manager or designated qualified staff, and applicable subconsultants at critical junctures. For budgeting purposes, we have assumed a 3/4 day per meeting (a total of 60 hours) for the GZA Project Manager for meeting attendance and preparation of meeting minutes.

The GZA Team will work in close collaboration with the Contractor's Project Superintendent/Manager, making periodic visits to the project site in conjunction with the progress meetings to observe the progress and quality of the Work to determine, in general, if the Work is proceeding in accordance with the Contract Documents and applicable codes. GZA will notify the City of any QA/QC issues, code violations or deviations from the construction documents observed during site visits and will make recommendations modifications to Contractor's work that, in GZA's reasonable opinion, is unsafe, of uncertain quality, or does not conform to applicable codes and/or the intent of the Contract Documents. GZA shall then decide with the City what remedies are appropriate for the circumstances and in the best interest of successful project completion and formally communicate these requirements to the Contractor. The GZA Team shall not be responsible for, nor have control or charge of, construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the construction, and shall not be responsible for failure of the Contractor to carry out the installation in accordance with the Contract Documents and in a safe manner.

Neither the professional activities of GZA, nor the presence of GZA's employees and/or subcontractors will be construed by any party to imply that GZA has any responsibility for any Contractor's methods of work performance, procedures, superintendence, sequencing of operations, or safety in, on or about the project site. The City agrees to make evident in their agreement with Contractors that neither the presence of GZA's field representative nor any observation or testing by GZA will excuse him/her for defects discovered in his/her work.

With respect to site safety, GZA will be responsible solely for the on-site activities of its own employees and subcontractors, and this responsibility will not be construed to relieve City and City's own Contractors from their obligations to maintain a safe project site. The City agrees that City's own Contractor is solely responsible for project site safety, and warrants that: (1) this intent will be made evident in the City's agreement with their Contractor; and (2) City will require the GZA Team to be named as an Additional Insured under their Contractor's general liability insurance policy.

#### Task 7.3. Review of Contractor Submittals and Requests for Information:

GZA will provide technical review of Contractor's shop drawings, test results of materials, review samples and other submissions related to the proposed construction as necessary for compliance with the Project Drawings and Specifications. Our scope and fee estimate assume only one round of re-submittals. We will process and respond to submittal correspondence from the Contractor. Correspondence received from the Contractor(s) will be reviewed by our staff relative to the specifications and the Project permits. GZA will provide a written response to submittals received from the Contractor with recommendation to the City to accept, accept with modifications, or reject the submittal. GZA correspondence will be sent to the City, with copy to the Contractor.

The Contractor's required Operations and Maintenance Manual for the completed PV and ESS systems and supporting infrastructure will be reviewed for completeness.

GZA will provide a Project Manager or designated qualified staff on a part-time basis (assuming an average of 3± hours per week for 12 weeks for a total of 36 hours) to provide liaison with the City and the Contractor, to review submittals, and to respond to RFIs or other questions from project partners. An additional 0.5± hours of Principal time per week (for a total of 6 hours) have been budgeted. In the event of questions regarding potential changed conditions or other



issues, which might have contractual implications, the questions will be discussed with the City to determine whether any action is necessary and within the project scope, and the associated cost implications. The GZA Team will develop technical recommendations in a timely manner to address unanticipated conditions, if encountered. GZA will issue a written response to the City with our opinion as to the appropriate resolution of questions or unexpected conditions.

#### Task 7.4. Completion Review:

As construction work nears substantial completion, the GZA Team will review the Contractor's "As-built" plans, in cooperation with the City. The GZA Team will assist the City in preparing a "punch-list" containing items for completion prior to close-out of the phase. If requested, GZA will assist with the preparation of a Certificate of Substantial Completion at the end of construction for the purpose of assisting with authorization of final payment to the Contractor. GZA will prepare a final completion report, which will include Contractor-prepared "as built" and "record" drawings.

#### Task 7. Deliverables:

1. Comments to Contractor Submittals.
2. Correspondence to Contractor Requests for Information (RFIs), as needed.
3. Construction observation reports.
4. Signed and sealed Final Construction Control Affidavit.
5. "As-Built" record drawings, incorporating Contractor red-lines.
6. Construction completion report (two hard copies and .pdf)
7. All deliverables will be provided in the form of PDF files. All deliverables will be transmitted electronically.

### **TASK 8. SYSTEM COMMISSIONING**

Through SDA, the GZA Team will provide full, independent commissioning of the solar system to verify proper operation and performance. SDA's commissioning protocol involves the use of precision field-test instruments to define the exact level of system performance and output under the actual field conditions correlated with specific measurements of the instantaneous solar radiation on the arrays during the commissioning process. SDA will verify system output to the AC / revenue grade meter as part of system commissioning. SDA will prepare a comprehensive punch list of issues identified during commissioning for the installing Contractor to complete prior to project close-out and final system acceptance by the Owner for each system. SDA will prepare a formal commissioning report including results of the performance testing and make recommendations to the Owner regarding final acceptance of the system and project close-out. If the servicing utility should require on-site witness testing of the system prior to final interconnection and operational approval of the solar system, SDA can participate if desired as an additional service. SDA will interface with equipment manufacturers to establish and launch the manufacturers web-based monitoring portal and establish a kiosk view on the web-connected display specified by SDA and installed by the Contractor.

#### Task 8. Deliverables:

1. Commissioning report and Contractor's punch list. System Commissioning includes a 2 person, 1-day PV commissioning visit to the School site, and a detailed punch list of issues needing the Contractor's attention prior to project close-out.



#### **TASK 9. MISCELLANEOUS MEETINGS AND TASKS**

GZA will prepare for, attend, and present at miscellaneous meetings, such as City Council or neighborhood council meetings, as specifically requested by the City. In addition, GZA will provide unanticipated professional services related to the Project as specifically requested by the City. Such services will be consistent with the services typically provided by GZA or its subcontractors in the performance of services related to similar projects, and may include the services of a Licensed Site Professional or specialized subconsultant. GZA will participate in NDRC Grant discussions. A generalized budget has been included for this somewhat indeterminate task. GZA can prepare budget estimates for identified subtasks when requested.

##### Task 9. Deliverables:

1. Deliverables for Task 9 shall be as specifically directed by the City at the time such services are requested.

#### **TASK 10. SPECIFIC FEES**

Task 10 establishes a budget for anticipated fees associated with the Interconnection application, the SMART Program application, and the utility production meter. The recommended total budget for these fees is \$3,000.

##### Task 10. Deliverables:

1. Receipts for all fees paid by GZA on the behalf of the City.

#### **SCHEDULE**

GZA will schedule the described work immediately upon receipt of an Accepted Proposal and amended City of Springfield Contract Agreement and associated Purchase Order. We will maintain regular communication with the City and its NDRC Grant implementation team so that issues and concerns are addressed on a timely basis.

The *Part B: Feasibility Study* included a Tentative Project Schedule, attached to this Proposal. At the present time, GZA anticipates this schedule is a reasonable guide for the progress of the Project going forward, assuming we receive a Notice to Proceed in early November. Accounting for subcontracting and driller mobilization, the Geotechnical Investigations would be commencing later than anticipated in the earlier tentative schedule, and inclement weather conditions could impact the schedule for this task. If the desire is to construct the PV during the summer recess of CY2021, there is considerable float in the tentative schedule following design and procurement.

#### **PRICE PROPOSAL AND BASIS OF BILLINGS**

GZA's Scope of Services and Price Proposal are based upon our review of the recommended Scope of Services, our team's familiarity with providing similar or related services to municipalities and other public agencies, and our team's specific knowledge of the Project site and its history.

GZA proposes to provide the total scope of services described above, Tasks 1 – 10, on a lump sum (fixed price) billing basis amount of **\$181,840.00**. As an approximate schedule of values, the lump sum fee is detailed in Table 1 below. The proposed lump sum fee represents our best current estimate of the level of effort which will be needed to



complete the anticipated and proposed Scope of Services and is based on a level of participation by GZA personnel plus subcontractor/vendor costs and applicable expenses as shown on **Attachment A – Fee Derivation Worksheet**, which represents our present judgment as to the level of effort required. We note that the hourly rates used in our Fee Derivation Worksheet are the same as GZA’s rates under our existing City Contract No. 20180234.

<b>TABLE 1. PROPOSAL BUDGET / SCHEDULE OF VALUES</b>		
<b>Task #</b>	<b>Description</b>	<b>Cost</b>
1	PROJECT KICKOFF / FIELD REVIEW	\$7,310
2	SUBSURFACE EXPLORATIONS / GEOTECHNICAL RECOMMENDATIONS	\$8,460
3	SCHEMATIC DESIGN & INTERCONNECTION APPLICATION	\$8,530
4	50% DESIGN DEVELOPMENT	\$41,310
5	100% CONSTRUCTION DOCUMENTS	\$37,230
6	BIDDING, EVALUATION / CONTRACTOR SELECTION SUPPORT	\$16,380
7	DESIGNER SERVICES DURING CONSTRUCTION (Sub-Tasks 7.1 – 7.4)	\$48,060
8	SYSTEM COMMISSIONING	\$7,740
9	MISCELLANEOUS MEETINGS AND TASKS	\$3,820
10	SPECIFIC FEES	\$3,000
<b>Total</b>		<b>\$181,840</b>

GZA will prepare its invoices to the City providing such information and documentation as required by GZA’s City of Springfield Contract No. 20180234.

**CONDITIONS OF ENGAGEMENT**

GZA assumes the work of this Proposal will essentially be a change order to our existing City of Springfield Contract No. 20180234, and that a Contract Amendment will incorporate this new work.

**ACCEPTANCE**

Acceptance of this Proposal may be indicated by providing GZA with a Notice to Proceed, with a specific amendment to our existing Contract No. 20180234 and new or modified Purchase Order to follow. This proposal is valid for a period of 30 days from the date of issue.

Thank you for this opportunity to propose our continued services to the City of Springfield on this exciting Project. We are of course available to address any questions you may have—please contact Tom Jenkins at (413) 726-2121 / [thomas.jenkins@gza.com](mailto:thomas.jenkins@gza.com), at your convenience.



Sincerely,  
**GZA GEOENVIRONMENTAL, INC.**

A handwritten signature in black ink, appearing to read "Todd E. Monson".

Todd E. Monson, P.E.  
Project Manager

A handwritten signature in black ink, appearing to read "Edward A. Summerly".

Edward A. Summerly, P.G.  
Consultant / Reviewer

A handwritten signature in black ink, appearing to read "Thomas E. Jenkins".

Thomas E. Jenkins, R.E.  
Principal-in-Charge

Attachments: Attachment A – Fee Derivation Worksheet (October 23, 2018)  
FIGURE B-3 – Tentative Project Schedule (from *Renewables Feasibility Report – Part B*, Feb 2019)

**Attachment A - Fee Derivation Worksheet**  
**Renewable Energy and Storage at Elias Brookings School - 15.P000133.20**  
**City of Springfield**  
 October 23, 2019

Task	Description	Senior										Subcontractors	Lab & Expenses	TASK TOTAL (INCLUDES APPLICABLE MARKUPS)	USE THESE FIGURES IN THE SCHEDULE OF VALUES:				
		Principal Engineer/ Env. Sci.	Principal Engineer/ Env. Sci.	Principal Engineer/ Env. Sci.	Assoc. Engineer/ Env. Sci.	Senior Engineer/ Env. Sci.	Senior Engineer/ Env. Sci.	Project Engineer/ Env. Sci.	Project Engineer/ Env. Sci.	Assistant Engineer/ Env. Sci.	Eng/ Env. Sci. I					Eng/ Env. Sci. II	St. CAD Drafter	Drafter	Admin.
1.0	PROJECT KICKOFF / FIELD REVIEW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	\$4,914	\$215	\$7,309.75	\$7,310
2.0	SUBSURFACE EXPLORATIONS / GEOTECH RECOMMENDATIONS	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	2.0	\$3,500	\$654	\$8,459.25	\$8,460
3.0	SCHEMATIC DESIGN & INTERCONNECTION APPLICATION	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	\$6,307	\$114	\$8,526.75	\$8,530
4.0	50% DESIGN DEVELOPMENT	1.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$58,949	\$176	\$41,311.79	\$41,310
5.0	100% CONSTRUCTION DOCUMENTS	1.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$32,032	\$212	\$37,225.70	\$37,230
6.0	BIDDING, EVALUATION / CONTRACTOR SELECTION SUPPORT	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	\$11,553	\$231	\$16,381.74	\$16,380
7.0	DESIGNER SERVICES DURING CONSTRUCTION:															\$48,065.90		\$48,065.90	\$48,060
7.1	Final System Design Review	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$9,148	\$36	\$10,011.08	\$10,010
7.2	Meeting Attendance	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	\$6,291	\$67	\$21,152.74	\$21,150
7.3	Submittals & RFIs	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	\$4,527	\$261	\$13,084.16	\$13,080
7.4	Completion Review	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$1,842	\$103	\$3,817.92	\$3,820
8.0	SYSTEM COMMISSIONING	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$6,320	\$62	\$7,737.55	\$7,740
9.0	MISCELLANEOUS MEETINGS AND TASKS	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	\$0	\$283	\$3,622.95	\$3,620
10.0	SPECIFIC FEES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0	\$3,000	\$3,000.00	\$3,000
		2.0	1.0	52.0	12.0	189.0	4.0	4.0	20.0	2.0	2.0	2.0	2.0	23.0	\$126,383	\$5,015	\$126,383	\$126,380	
		\$260	\$240	\$240	\$220	\$175	\$150	\$125	\$105	\$95	\$120	\$95	\$75	5%		0%			
		\$520	\$240	\$11,440	\$2,100	\$23,850	\$500	\$420	\$1,900	\$240	\$190	\$190	\$1,725	\$132,702	\$5,015	\$132,702	\$132,700		
		Subtotal, Labor: \$43,125																	
		Subtotal, Subcontractors, Lab, & Expenses: \$138,716																	
		Total Budget: \$181,841																	
		Total Budget: \$181,840																	

Vendors, Subcontractors, Lab, & Expenses: \$181,840  
 Total Budget: \$181,841  
 Total Budget: \$181,840

Hourly rates are per GSA's City Contract No. 20180204.



FIGURE B-3

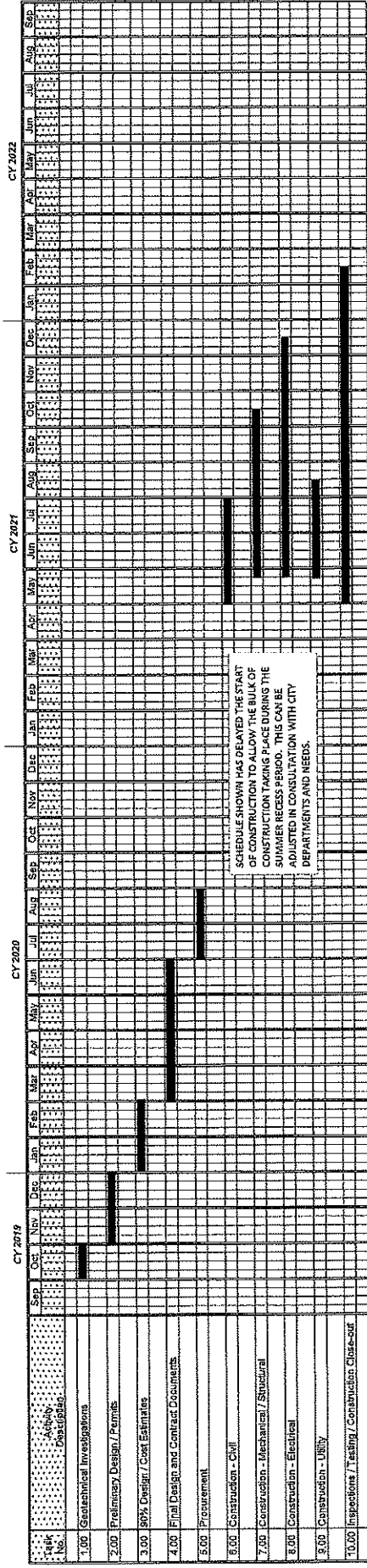
TENTATIVE PROJECT SCHEDULE

Renewable Energy Options at Elias Brookings School  
Springfield, Massachusetts

February, 2019

GZA

15.0166625.10



- Notes
1. The above schedule is predicated on commencing pre-design and design activities on or before October 1, 2019.
  2. We have assumed a Client review time of two weeks for draft documents.
  3. At this time, geotechnical drill log availability does not appear to be an issue with the above schedule.

Bill To  
 COMMUNITY DEVELOPMENT  
 1600 EAST COLUMBUS AVE  
 SPRINGFIELD, MA  
 01103

Requisition 20006920-00 FY 2020

Acct No:  
 26451811-530105-64516  
 Review:  
 Buyer: lpl  
 Status: Released

Page 1

Vendor  
 GZA GEOENVIRONMENTAL INC  
 ONE FINANCIAL PLAZA  
 1350 MAIN STREET STE 1400  
 SPRINGFIELD, MA 01103

Ship To  
 DISASTER RECOVERY  
 1600 EAST COLUMBUS AVENUE  
 2ND FLOOR  
 SPRINGFIELD, MA 01103  
 TQUAGLIATO@SPRINGFIELDCITYHALL.COM

Tel#413-726-2100  
 Fax 9-1-413-732-1249

Delivery Reference  
 TINA QUAGLIATO SULLIVAN

Date Ordered	Vendor Number	Date Required	Ship Via	Terms	Department
10/31/19	006824				COMMUNITY DEVELOPMENT

LN	Description / Account	Qty	Unit Price	Net Price
	General Notes			
001	AMENDMENT #3 CONTRACT 20180234 PENDING CDBG-NDR AMENDMENT #3/C#20180234 - RENEWABLE ENERGY & STORAGE AT ELIAS BROOKINGS SCHOOL	1.00 EACH	181840.00000	181840.00
1	26451811-530105-64516		181840.00	

Ship To  
 DISASTER RECOVERY  
 1600 EAST COLUMBUS AVENUE  
 2ND FLOOR  
 SPRINGFIELD, MA 01103  
 Delivery Reference  
 TINA QUAGLIATO SULLIVAN

Requisition Link

Requisition Total 181840.00

\*\*\*\*\* General Ledger Summary Section \*\*\*\*\*

Account	Amount	Remaining Budget
26451811-530105-64516	181840.00	3871980.00
CDBG-NDR-CLEAN & REDUNDENT ENR PROFESSIONAL SERVICES		

\*\*\*\*\* Approval/Conversion Info \*\*\*\*\*

Activity	Date	Clerk	Comment
Approved	10/31/19	Amanda Pham	Auto approved by: cak
Approved	10/31/19	Cathy Buono	

10/31/2019 09:39 | CITY OF SPRINGFIELD  
Theocles | CONTRACT CHANGE ORDER REPORT

| cl...

CONTRACT # 20180234    6824    GZA GEONVIRONMENTAL INC    10/31/19    ENTRY DT    JOURNAL

Enforcement Method: Not to Exceed

YEAR	AMOUNT
2020	181,840.00
TOTAL	181,840.00

\*\* END OF REPORT - Generated by Theo Theocles \*\*





INTEROFFICE MEMORANDUM

DEPARTMENT: Capital Asset ATTENTION: DEPARTMENT HEAD  
G3A V#6834  
FROM: OFFICE OF PROCUREMENT (OOP)

SUBJECT: REQUEST TO AMEND AN EXISTING CONTRACT  
CONTRACT NO. 20180234  
DESCRIPTION: Consulting Services for Hydro Plant  
DATE: 10/24/19  
CC: LAUREN STABILO, CHIEF FINANCIAL OFFICER

The contract noted above needs to be amended as follows:

Increase the amount of contract by: \$ <u>181,840</u>	orig. contract: \$ 196,000
Decrease the amount of contract by: \$ _____	Amendment #1: \$ 68,200
Original Contract Amount: \$ <u>196,000</u>	Amendment #2: \$ 543,380
Adjusted contract amount: \$ <u>989,420</u>	Amendment #3: \$ 181,840
	Total adj \$ <u>989,420</u>

Dept. Head Signature: [Signature]

If there are any questions or concerns please contact the Office of Procurement at 7845.

**PLEASE RETURN THIS COMPLETED FORM TO THE OFFICE OF PROCUREMENT.**  
The Office of Procurement will notify the Department of the status of the request and when finalized a Change Order will be generated by the Department and forwarded to the Office of Procurement for processing.

[Signature]