



**January 17, 2024**

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City of Somerville  
Department of Infrastructure and Asset Management  
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**RE: Proposal No. P234503.2**

City of Somerville – Energy Consulting Services – 42 Cross Street, Somerville, Massachusetts 02145 (the “Project”)

Dear Elizabeth:

SOCOTEC AE Consulting, LLC (“SOCOTEC” or “Consultant”) thanks you for the opportunity to provide City of Somerville (the “Client” or the “Owner”) with this revised proposal for energy efficiency consulting services. At your request, we are providing this proposal for energy efficiency consulting services for the Project. All terms and conditions for this proposal are defined in the existing Master Agreement between City of Somerville and SOCOTEC AE Consulting, LLC, dated **April 20, 2021**.

## **PROJECT APPROACH & SCHEDULE**

Consultant understands the Project is to provide the Client with energy consulting services. Consultant anticipates this work will commence upon Client’s authorization of this Agreement and will be completed between **November 1, 2023 and March 15, 2024**.

Consultant has based this proposal’s scope of work and level of effort on the schedules and durations established by Consultant, as follows:

PHASE	DURATION	START DATE	END DATE
Week 1 – Approve Proposal, Phone Interview, and Document Exchange	1 Week	December 11, 2023	December 15, 2024
Week 2 – Walkthrough/Site Visit and Modeling of Existing Conditions	1 Week	January 1, 2024	January 5, 2024
Week 3 – Modeling of Existing Conditions	1 Week	January 8, 2024	January 12, 2024
Week 4 – EEM planning and Mid-Point Meeting to Review Proposed EEMS	1 Week	January 15, 2024	January 19, 2024
Week 5 – Blower Door Testing	1 Week	January 22, 2024	January 26, 2024
Week 6 – Refinement of Energy Model, EEMs, and Report	1 Week	January 29, 2024	February 2, 2024
Week 7 – Submit Report and Receive Comments with Final Interview	1 Week	February 2, 2024	February 9, 2024
Weeks 8-9 – Submit Design Development Documents	2 Weeks	February 12, 2024	March 1, 2024
Weeks 10-11 – Submit Cost Estimate and Construction Documents for Green Communities Grant	2 Weeks	March 4, 2024	March 15, 2024

Consultant’s level of effort set forth in this proposal assumes that the work will run continuously and be completed within the timeframes identified in the foregoing schedule. To the extent the Project incurs delays or scope changes, Consultant will require an adjustment to the fee and/or schedule.

Consultant has included the following milestones in the scope of this proposal:

- Submit Report: February 2, 2024; and
- Complete Cost Estimate: March 15, 2024.

## SUMMARY OF FEES

ENERGY PHASES: CONSULTANT	Item	LUMP SUM
Phase 1 – Condition Assessment and Energy Efficiency Measures	A-1	\$19,500
Phase 2 – Blower Door Testing	A-2	\$4,200
Phase 3 – Construction Documents and Construction Administration	A-3	\$75,500
<b>TOTAL *</b>		<b>\$99,200</b>
<b>Estimated Reimbursable Expenses</b>	<b>-</b>	<b>\$400</b>

\*Total does not include optional phases or estimated reimbursable expenses.

OPTIONAL SERVICES – ENERGY	Item	LUMP SUM
Embodied Carbon Material Research – <i>Vetting</i>	A-4	\$6,000

## SCOPE OF SERVICES

### A. ENERGY

1. **Phase 1 – Condition Assessment and Energy Efficiency Measures:** Consultant will perform an analysis to identify energy and emissions reduction measures for implementation in the near term. To support the analysis, Consultant will:
  - a. Compile a list of previously completed energy efficiency and electrification measures implemented in the subject building. The Client will provide available documentation of previous measures implemented. Consultant will conduct a phone interview with the building management team to discuss implemented measures.
  - b. Develop an implementation plan for energy and emissions reductions. The goal of this plan is to evaluate the available options and provide sufficient detail to obtain outside cost proposals for preliminary pricing used for planning purposes. The plan will describe the measures, approximate costs, applicable rebates (performance and prescriptive as applicable), and the estimated energy and emissions reductions. To support this planning, Consultant will:
    - i. Conduct a field visit to review and document existing building envelope conditions and HVAC systems;
    - ii. Research proposed HVAC, lighting, and domestic hot water (“DHW”) equipment upgrades;
    - iii. Provide high level cost projections for each envelope and MEP measure;
    - iv. Analyze energy and carbon emissions improvements for each envelope and MEP measure;
    - v. Document available federal, state, and utility incentives for each measure; and
    - vi. Consultant will hold meeting with the Client to review the proposed energy efficiency measures (“EEMs”).
  - c. Perform a roof condition assessment for each property to determine the suitability for a photovoltaic (“PV”) installation. Consultant will also provide a PV feasibility study which will include an estimate of annual power generation, high level installation costs, and available incentives.
  - d. Consultant will prepare a draft of an Energy & Emissions Reduction report and present it to the Client for review and discussion. Consultant will revise the report based on feedback received during this review and provide a final copy to the Client.
  - e. Consultant will meet with utility companies via video/teleconference and help develop incentives to pursue.
2. **Phase 2 – Blower Door Testing:** Consultant will provide:
  - a. Air leakage testing for the Project related to measuring the air leakage value using a calibrated fan assisted blower door system generally following the ASTM E 779 protocol to establish a baseline of leakage characteristics. The air leakage testing will be performed in accordance with the following:
    - i. Consultant will review recent Project drawings, including architectural and shop drawings, provided by the Client, related to the areas where testing is to be performed.
    - ii. Consultant will participate in a pre-testing site walkthrough to observe existing field conditions and perform field measurements at the areas to be tested to determine the areas’ preparedness for the fan assisted testing.
    - iii. On the Day of testing, Consultant will bring the equipment required for testing to the site and set up the apparatus. Consultant will record three multi-point test data and provide an average of the final result at 50 Pa. *Note: Consultant anticipates that electric outlets with 20A breakers will be required for the testing. The Client is to make the required breakers available, while Consultant will provide the extension cords.*
    - iv. Over the course of that one day of testing, Consultant will set up the blower door equipment and perform a single point and multi-point test. Consultant’s set up includes installation of dataloggers, a calibrated

fan, controllers, use of a smoke pen and/or Infrared (“IR”) camera. Based on Consultant’s review, observations and test data, Consultant will provide the Client with a report with its findings and recommendations.

- b. Consultant will participate in one meeting with the Client via tele/videoconference to discuss its findings.

3. **Phase 3 – Construction Documents and Construction Administration:** Consultant will provide:

- a. Development of design documents/specifications based on the scope that the Client provided so that the Project may be bid/constructed, including:
  - i. New reflective roof membrane;
  - ii. Add roof insulation to meet or exceed stretch code (renovation drawings indicate 4” of spray foam insulation on the underside of the deck);
  - iii. Replace skylights (there are 4 existing skylights) to, meet or exceed stretch code;
  - iv. Upgrade to LED lighting;
  - v. New RTU with heat pumps and energy recovery;
  - vi. Electric point source DHW; and
  - vii. New controls system that is bacNET compatible.

*Note: This scope may be refined based on the results of the A.1. study.*

- b. Meeting to review design documents/specifications via video/teleconference.
- c. Development of construction documents/specifications based on the above scope.
- d. Cost estimating for order of magnitude budget planning, to be completed with construction documents by March 15 to meet the deadline to submit for Green Communities.
- e. Meeting to review construction documents/specifications via video/teleconference.
- f. Construction Administration services, including bidding review, submittal reviews, and up to (10) site visits.
- g. Consultant will participate in one meeting via video/teleconference per phase of work.
- h. Consultant will assist in compiling the following information to submit for the Green Communities grant:
  - i. Estimated GHG reduction and backup calculations;
  - ii. Applied incentives;
  - iii. Building characteristics (age, area, EUI, use, operating hours, emissions intensity);
  - iv. The building is weatherized as much as possible, or included in the project (please include a weatherization study);
  - v. Electrical review (can the grid and the circuitry handle additional electric equipment?);
  - vi. Commissioning plan;
  - vii. Current heating and cooling equipment; and
  - viii. Commitment for town match.
- i. Meeting to review Green Communities grant information via video/teleconference.

## **OPTIONAL SERVICES - ENERGY:**

3. **Embodied Carbon Material Research - Vetting:**

- a. Consultant will review the material categories included in the online Embodied Carbon in Construction (“EC3”) tool. Consultant understands that for a number of these material types multiple variations can be assessed. Consultant will review which variations are most applicable to the Project and submit a proposed list of up to ten material options for carbon impact assessment using the EC3 tool. Consultant will obtain Client approval of the materials list before proceeding to the next step.
- b. Consultant will use the EC3 tool to perform a Project-specific analysis for each of the targeted material types and create a “boxplot” assessment that defines the following:
  - i. The maximum and minimum embodied carbon intensity per standardized unit of the material type, based on the Environmental Product Declarations (“EPD”) included in the EC3 database;
  - ii. The Carbon Leadership Forum’s (“CLF”) current “Baseline” embodied carbon intensity for the material type;
  - iii. A “Conservative” embodied carbon target (80% of the EPDs have a lower intensity than this value); and
  - iv. An “Achievable” embodied carbon target (20% of the EPDs have a lower intensity than this value).

**Notes:**

1. All lump sums are exclusive of reimbursable expenses.
2. Lump sums do not include an allowance for meetings or supervision except where specifically noted in the scope of services.
3. Any redesign obligation(s) will be performed on an hourly basis at the current year hourly rates when the work occurs.
4. Consultant shall invoice, and Client shall pay, for reimbursement of reasonable and customary out-of-pocket expenses that are directly incurred by Consultant in connection with the Engagement, including but not limited to messenger, travel, meals, accommodations, and other expenses specifically related to the Engagement. Consultant shall also invoice, and Client shall pay, 4.5% of Consultant's fees as a reasonable allocation of indirect expenses such as Project setup, computer services, and certain other Project delivery related expenses including in-house reproduction, field reporting software & other I.T. related to technical work product that are not billed as direct reimbursable expenses.
5. Payment terms: Invoices will be issued monthly and are due upon receipt. Consultant will invoice the Client based upon Consultant's work in place on a percent complete basis, based upon the shorter of work completed or time allotted. Budget estimates will be billed monthly as they occur. After 30 days, 1½ % per month a late fee will be charged. Consultant reserves the right to stop work on projects where invoices remain unpaid for over 60 days. Collection fees, including attorneys' fees, if required, will be charged to the Client.
6. Reimbursable expenses: are all expenses incurred by Consultant in connection with this Project on behalf of the Client and will be marked up by 15%. Reimbursable Expenses include, but are not limited to travel, long distance telephone charges, IT services, messenger service and reproduction costs. Subconsultants engaged by Consultant in connection with the Services to be provided shall be billed at Consultant's personnel rates as set forth herein. Laboratory fees and tests will be billed at a multiple of 1.25 of actual cost. All air travel in excess of four hours will be in business class. Travel time will be invoiced per the listed hourly rates.

We have updated this proposal per our correspondence on November 1, 2023. We look forward to discussing our proposal with you. Should you have any questions or if you would like further information on our services, please contact Andrew Graceffa at 646.384.6407 or [andrew.graceffa@socotec.us](mailto:andrew.graceffa@socotec.us) or Andrew Barr at 617.686. 9369 or [andrew.barr@socotec.us](mailto:andrew.barr@socotec.us).

Please indicate your acceptance of this proposal, which shall serve as our agreement, by executing and returning a signed copy to our office or, in the alternative, by providing us with written confirmation (email) of your acceptance of this agreement.

Thank you,

**Jeffrey Somerlot**  
Chief Executive Officer and President

CONSULTANT: SOCOTEC AE Consulting, LLC

CLIENT: City of Somerville

By:

Name:

Title:

Date:

By:

Name:

Title:

Date: