



REQUEST FOR PROPOSAL:

**“Schenectady Digital Mapping & Collection”**



*PREPARED BY  
CITY OF SCHENECTADY  
DEPARTMENT OF ENGINEERING*

*PROPOSALS DUE:*

*September 16, 2019 by 2:00pm*

## **INTRODUCTION**

The City of Schenectady (City) has allocated funds to improve the mapping, data collection and retention of existing public infrastructure within the City, with the end goal of creating a “digital twin.” Due to the age of existing infrastructure combined with the rapid economic development and various improvement projects within the City, the Department of Engineering believes digitizing the City’s infrastructure will be critical to improving City efficiencies.

## **PROJECT SUMMARY**

The City of Schenectady has allocated \$100,000 to retain a firm(s) to collect and map, to survey grade accuracy, data related to the City’s existing public infrastructure as detailed in the following section. In addition to mapping, the selected firm will inspect and survey select infrastructure as outlined below in order to create a “digital twin” of the City. The City acknowledges that the funding allocated for this project may be insufficient and will allocate future funding as necessary to successfully complete the project. The City is an Equal Employment Opportunity/Affirmative Action employer. Women, minority owned and service-disabled veteran owned businesses are encouraged to submit proposals.

## **PROJECT DETAILS**

The City has identified a need to create an interactive “digital twin” to better manage existing infrastructure and position the City for continued growth and compliance with increasingly stringent State and Federal standards. The retained firm(s) will map and collect an assortment of data on public utilities and infrastructure. A draft list of primary and secondary infrastructure data desired by the City is as follows. The below list is subject to change.

- **Sanitary - PRIMARY**
  - Manholes (cover, structure, size, conditions, inverts, material, photo)
    - Location (northing, easting, elevation)
  - Pipes (size, material)
    - Location (northing, easting, elevation)
    - Connections (assumed via gathered field data and historic records)
  - Pump stations (age, condition, photo)
    - Location (northing, easting, elevation)
- **Storm - PRIMARY**
  - Manholes (cover, structure, size, conditions, inverts, material, photo)
    - Location (northing, easting, elevation)
  - Catch basins (cover, structure, size, conditions, inverts, material, photo)
    - Location (northing, easting, elevation)
  - Pipes (size, material)
    - Location (northing, easting, elevation)

- Connections (assumed via gathered field data and historic records)
  - Outfalls (size, material, invert, condition, photo)
    - Location (northing, easting)
  - Drainage Basins (surface, underground)
    - Location (northing, easting, elevation)
    - Vault (material, condition, photo)
- Water - **PRIMARY**
  - Hydrants (type, flushed)
    - Location (northing, easting, elevation)
  - Hydrant Valves (size)
    - Location (northing, easting, elevation)
  - Main Line Valves (size)
    - Location (northing, easting, elevation)
  - Distribution Line Valves (size, # of turns to be provided by Water Dept)
  - Meters (size, type)
    - Vault (material, condition, photo)
    - Location (northing, easting, elevation)
  - Pressure Reducing Valves (size, type, operating pressures, date of inspection)
    - Vault (material, condition, photo)
    - Location (northing, easting, elevation)
  - Mains (size, material)
    - Connections (assumed via gathered field data and historic records)
- City Topography – **PRIMARY**
- ADA Ramps – Secondary
- Traffic / Trail Signs - Secondary
- Traffic Signals - Secondary
- Street Lights - Secondary
- Curbs and Curb Reveals - Secondary
- City Signage - Secondary

*Note: Not all of the City's infrastructure is located within the public right of way, i.e. the street. Some City-owned infrastructure is located on easements through private and State owned property. In addition, the City's water pump station is located on Rice Road in Rotterdam with easements adjacent to I-890 and General Electric. Limited access can be provided to these areas.*

Aerial, isometric, and ground imagery of the City's infrastructure is of interest, though all three image formats are not necessarily required. The data requested above may be collected by any means and in any format the retained firm(s) see fit, so long as the final product meets the City's goals and objectives.

Data management, integration and sustainability are paramount to the program's success. All data collected and provided to the City should be formatted in a non-proprietary way so as to

allow third party platforms to utilize the information. The City does not currently have a citywide identification system for its infrastructure, so the creation of such a system will be a focus of this program prior to data collection.

The City has an interest in linking the created program to existing digital information such as maps, resolutions, plans, Closed Circuit Television Video (CCTV) and photos. Furthermore this data will be integral in optimizing City infrastructure maintenance, deficiency collection and internal reporting. *Note: The City has recently begun using a custom built application to identify issues within the right-of-way through ESRI's Survey123 mobile program.*

Cross-departmental benefits for other City's other divisions such as Assessment, Codes, Planning, Development, Fire and Police should also be noted in your proposal.

## **SCHEDULE**

The schedule for this work will vary given the possibility of various project sizes and scopes. It is anticipated that all projects will progress in a timely manner from the initial kickoff meeting with the firm and the City.

## **PROPOSAL CONTENT**

Submissions, ***not to exceed five (5) pages in length***, should provide a Statement of Qualifications that includes the following information and representations:

- A. Firm Experience:** Technical capability to provide the services required herein in support of the defined project including other comparable projects completed in the past 5 years that would indicate relevant experience by the firm and assigned personnel.
- B. Personnel Experience/Management Plan:**
  - a. Identify key personnel assigned to this project and duties.
  - b. Resume's for the Project Manager and key technical staff, including any Sub-Consultants.
  - c. Indicate preliminary recommended schedule for each phase of the project.
- C. References:** Minimum of 3 personnel/company references from clients with similar projects with in the last 5 years. Include name of contact person, title, phone and email address.
- D. Sample Work:** Ideally, the retained firm would be able to provide sample imagery and/or data within a select area of the City of Schenectady; however, samples in a similar urban setting are acceptable. Examples may include shapefiles, orthoimagery, or other digital photography of the City of Schenectady or a similar city.

**E. Fee Schedule:** This proposal is not a bid. Provide staffing costs, hourly rates per individual, third party costs and a proposed hourly fee schedule to be used as a basis for negotiating a contract for services.

Five (5) copies of this information should be submitted to the City, at the address below, no later than 2:00 p.m. on September 16, 2019.

Schenectady Digital Mapping & Collection  
City of Schenectady  
Department of Engineering  
105 Jay Street, Room 205  
Schenectady, NY 12305

**Addenda** — if it becomes necessary to revise this RFP in whole or part, an addendum will be issued to all candidates of record.

## **REVIEW & SELECTION**

A qualified firm will be selected based on the following criteria listed in order of decreasing importance:

### **Criteria**

- Overall approach to and understanding of the challenges associated with the project, the project objectives, key elements of the project, etc.
- Experience of the firm with similar kinds of projects.
- Qualifications and experience of staff designated to work on the project.
- Familiarity with the project work area.
- Fee and Associated Costs.

Firms will be notified of the results of the evaluation and the requirements of any interview. The City may interview some or all of the Respondents to this RFP to obtain additional information or clarify proposals.

## **LIMITATIONS**

1. This request for proposals does not commit the City to award a contract, to pay any costs incurred in the preparation of the submittal or to procure or contract for services. All information and reports submitted in response to this request become the property of the City. The City reserves the right to accept or reject any or all proposals received as a result of this request and related negotiations, to negotiate with qualified contractors,

or to cancel in part or in its entirety this request, if it is within the best interest of the City to do so. The City will require the firm selected to negotiate concerning the fee or the nature and extent of technical services to be provided. The results of such negotiation shall be incorporated into the contract between the City and the Contractor.

2. The City reserves the right to ask for additional information and to consult references as may be necessary to judge the qualifications and ability of the firm.
3. Proposals as submitted are irrevocable and cannot be withdrawn for 60 days after submission.

END RFP