



# **TOWN OF MOORESVILLE**

## **Geographic Information System (GIS) Utility As-built and AGOL**

### **Request for Proposals**

#### **Introduction**

This entire set of documents constitutes the Request for Proposals (RFP). The proposer should return the RFP with all information necessary to properly analyze the proposer's response in full. Proposer's notes, exceptions, and comments may be rendered on an attachment, provided the same format of this RFP text is followed.

#### **Proposer Questions and Inquiries**

Proposer Questions and Inquiries relative to this RFP must be submitted in writing only to Danny Wilson, Town of Mooresville Planning and Community Development Director, via e-mail: [dawilson@mooresvillenc.gov](mailto:dawilson@mooresvillenc.gov) by the date indicated below. The Town will provide written responses to all inquiries received by this date, and responses will be made available to all recipients of this RFP. Any oral responses made by any representative of the Town may not be relied upon. Any supplements or amendments to this RFP will be in writing and furnished to potential proposers.

#### **RFP Response Submission**

Proposers must submit Proposals electronically. To reduce printing costs and to facilitate recycling, we request that only electronic proposals in PDF format be submitted prior to the deadline. **Electronic proposals should be submitted by attaching a single file of the required bid forms to an email entitled, "PROPOSAL – GIS Utility As-built and AGOL" and emailed to: [dawilson@mooresvillenc.gov](mailto:dawilson@mooresvillenc.gov) and received no later than 12:00 pm (Noon), May 20, 2022.** Such submission will not be opened until the time for receiving Proposals has come. Please do not wait until the last minute to send your Proposal to avoid any possible delay that may occur during the transmittal of files. A screen print of the email receipt will be used by the Town as verification of the time received. Late proposals will not be considered.

The Town will not be obligated for the expenses of any provider arising out of preparation and/or submittal of responses to this RFP. Any and all proposals to this RFP are to be prepared at the cost and expense of the respondents, with the express understanding that there may be no claims whatsoever for the reimbursement of any costs, damages, or expenses relating to this procurement from the Town or any other party for any reason (including the cancellation of this RFP). Proposals must be made in the official name of the individual, firm, or corporation under which the business is conducted (showing official business address) and must be signed in ink by a person duly authorized to legally bind the business entity submitting the proposal.

All proposals should be complete and carefully worded and must convey all the information requested by the Town. If errors or exceptions are found in the proposal, or if the proposal fails to conform to the requirements of the RFP, the Town will be the sole judge as to whether that variance is significant enough to reject the proposal.

Proposals should be prepared simply and economically. All data, materials, and documentation shall be available in a clear, concise form. The Town reserves the right to reproduce proposals for internal use in the evaluation process.

Proposers are expressly forbidden from contacting any other Town employee or Town appointed or elected official regarding this Request for Proposals. Any such outside contact may result in disqualification from the request for proposal process.

The Town reserves the right to hold proposals open for a period of ninety days (90) days after due date before making awards. The Town also reserves the right to reject any and all offers and to waive informalities or technicalities as it may deem to be in its best interest.

## **Anticipated Schedule of Events**

<b>Activity</b>	<b>Date</b>
RFP Release Date	April 27, 2022
<b>Proposers Questions and Inquiries Deadline</b>	<b>Noon: May 5, 2022</b>
Town Response to Questions	May 9, 2022
<b>RFP Response Submission Date</b>	<b>Noon: May 20, 2022</b>
RFP Evaluation and Selection	May 20-May 31, 2022
Notification of Selected Proposer	May 31, 2022

## **Town Contact**

Danny Wilson  
Planning and Community Development Director  
[dawilson@moorevillenc.gov](mailto:dawilson@moorevillenc.gov)

## **Purpose of Request for Proposal (RFP)**

The Town is requesting proposals from qualified vendors for services to support data input, collection, and asset management of the Town's ESRI Geometric Network and ArcGIS Online Program (AGOL). The objective of this RFP includes identifying and evaluating prospective vendors and their ability to input CAD data accurately and thoroughly into GIS, organize AGOL, determine online map application usage by internal users, and, if applicable, complete field data collection.

The following documents will form the basis for a contract and purchase order for the awarded vendor:

- This RFP document and any addenda,
- The submitted response,
- All required M/WBE documentation,
- The signed Town's Independent Contractor Agreement, and
- The final and signed Statement of Work.

## **Scope of Work**

The Town of Mooresville (Town) is requesting proposals from vendors that have expertise in Geographic Information Systems (GIS) and, potentially, field surveying. The scope of this project includes the following:

1. Input Utility As-built Data
  - a. Input as-builts utility (water, sewer, stormwater) drawings into existing GIS layer files
  - b. Potentially, survey-grade collection of all water, sewer, and stormwater data (this will be an alternate that may not be included, based on time and cost)
  - c. Uploading data to current GIS infrastructure within the Town's network, and performing quality assurance and quality control (QAQC) measures on both data submitted by proposers and current GIS data
2. AGOL
  - a. Assess existing map applications and data in the Town's AGOL environment
  - b. Determine data usefulness and redundancies
  - c. Work with staff to identify updates to AGOL, needs, and recommendations
3. Zoning Layer
  - a. Recreate the Town's zoning layer including attribute table data
  - b. Town to provide existing layer and information to include in attribute table

The ideal candidates will have knowledge of survey software and hardware, ESRI ArcPro, ArcGIS 10.x software, and QAQC software, such as Python, Data Reviewer, or like programs. Once the initial phases of the project are completed, there may be a yearly renewal option for continued collection of new infrastructure. The Proposer should already have a program proven in this industry and have the applicable experience to implement the proposed program in alignment with the requirements described in this RFP. In addition, the Proposer must have the

capacity to deploy the program in a time and cost-effective manner, following all pertinent information reliability and security standards.

**Notes:**

- The Town's current GIS utilizes ESRI ArcPro & ArcGIS in a SQL environment.
- Proposer will be responsible for matching software upgrades the Town may incur during contract period.
- An ArcGIS Online Map of current utilities GIS data will be provided for the Proposer's use.
- The Proposer will have access to the Town's record drawings shared folder for viewing as-built information. Please note that the Town mapping records may not accurately document all infrastructure.
- Either a geodatabase containing a copy of the Town's current GIS database will be provided, as well as a list of required fields, or a virtual desktop/RDC connection will be provided for data base editing.
- Specific Attribution to collect will be determined during the kick-off meeting with the successful proposer.
- All data submitted will be required to be compatible with the current GIS architecture.
- All digital deliverables should be in ESRI geodatabase format.
- All digital deliverables must include FGDC (Federal Geographic Data Committee) standard metadata.
- The map projection should in North Carolina State Plane Coordinate System 1983 North America Datum FIPS 3200 US Feet. However, if the State Plane System is updated nationwide, the projection going forward will need to match that update.
- If applicable, all field data collection (survey) work must be performed under the supervision of a North Carolina Licensed Professional Surveyor, as defined by North Carolina General Statute 89C, which can be accessed at the following link: [https://www.ncleg.net/enactedlegislation/statutes/html/bychapter/chapter\\_89c.html](https://www.ncleg.net/enactedlegislation/statutes/html/bychapter/chapter_89c.html).
- If applicable, positional accuracy of survey grade GPS will require best practice standards listed in accordance with North Carolina Stateside Global Navigation Satellite System (GNSS) Data Collection and Documentation Standards, Version 4, March 2014 and adopted by the NCGICC Statewide Mapping Advisory Committee in 2014 (Formerly known as the "Statewide Global Positioning System (GPS) Data Collection and Standards"). This document can be found at the following link: <https://files.nc.gov/ncdit/documents/files/GNSS-Standard-Version4-Adopted-2014.pdf>. The data collection, connectivity and spatial and attribute accuracy shall be to the highest degree within the chosen requirement of the final contract.

The following notes about Quality Assurance and Quality Control (QAQC) of data submissions must be followed for all phases of work:

- The Proposer will provide a workflow for QAQC of the data to be submitted to the Town. Before a data submission is accepted for upload to current Production GIS, the dataset must be within an attribution accuracy threshold of 95% and all point data must be RTK or conventional level positional accuracy. Documentation of QAQC methodology will be required.

- The Town will also conduct QAQC checks on data submissions before acceptance.

The following notes about data uploads must be followed for all phases of work:

- Once a data submission has been accepted by the Town, a staff member for the Proposer's firm will be responsible for replacing current data by removing incorrect information at those locations and pasting new data in. The Town will perform QAQC on the uploaded data. The Town will provide a remote connection for the Proposer to use. The workstation will be equipped with ArcPro or ArcGIS Desktop version 10.8 or greater
- Once the selected firm has been chosen, a limited contract will be drawn up. A pilot area will be determined, and a limited number of utility features can be collected and processed and related policies and procedures can be tested. Upon completion of a successful pilot project, a full contract may be negotiated and recommended to the Town Board for award.
- The selected firm will hold weekly project status meetings with the Town's representative(s) unless deemed unnecessary by the Town. These meetings may be virtual.

For field verification work, in some cases, the assets may not be easily located, or may not actually exist. In cases where the proposer cannot field locate an asset after exhausting all resources, including field searching for 2 hours and researching available record drawings, the following workflow should be followed:

- Proposer will use a provided AGOL map to identify locations where assets could not be located on site.
- The Town will delegate field staff to locate assets if possible.
- Once asset is found, the Town will paint location or flag for easy identification.
- The provided AGOL map will be updated with confirmation of a located asset
- Proposer will survey correct location of asset within 4 weeks of Town location of asset.

## **1. The Utility and Asset Collection Program will be implemented in the following phases:**

### **Phase 1: Evaluation of Current Town Utility and Stormwater Network and Data**

- Review and understand information and data structure.
- Review areas that are missing data and data to be input into GIS with Town staff

### **Phase 2: Pilot Data Collection**

- Work with Town staff to identify an area for a pilot project
- Input of as-built CAD files into GIS
- Survey-grade data collection, if applicable
- Data input, collection, and assessment for pilot project
- QA/QC data input and collected

### **Phase 3: Full Data Input and Collection**

- Work with Town staff to determine phased approach for full data input and collection
- Input of as-built CAD files into GIS
- Survey-grade data collection, if applicable
- QA/QC data input and collected

In Phase 3, the Proposer will expand the data collection to include all public water, sewer, and stormwater assets that are newly constructed since the Town's previous collection. If applicable, survey grade data and attribution will be collected in the field for the point asset types listed below:

**Water Distribution:**

- Fire Hydrants
- Water Valves, including Pressure Reducing Valves (PRVs), Air Relief Valves (ARVs), and Boundary Valves
- Water Meters
- Water Mains
  - Water mains will be drawn using surveyed end points (meters, valves, hydrants, etc.) and record drawings for clarification.
- Water Service Laterals
  - Water laterals will be drawn using surveyed end points (meters, main line, etc.) and record drawings for clarification through location tracing between the meter and the water main
  - Alternate to survey/GPS location of water service laterals: Identify location/direction of laterals as noted on as-builts and label as "Not Field Verified" in the GIS attribute table

**Sewer Collection:**

- Manholes
- Drop Inlet Manholes
- Aerial Sewers
- Cleanouts
- Sewer ARVs
- Sewer Valves
- Sewer Mains (Gravity and Forcemains)
  - Sewer mains will be drawn using surveyed end points (cleanouts, manholes, lift stations, etc.) and record drawings for clarification.
- Sewer Service Laterals
  - Sewer laterals will be identified with a notation for where they connect to the main and drawn using surveyed end points (cleanouts, manholes, nearest gravity main, etc.) and record drawings for clarification.

**Stormwater:**

- Manholes
- Drainage Pipes, Ditches, Culverts, and Other Stormwater conveyance devices with elevations and inverts
- Catch Basins

- Junction Boxes
- Drop Inlets
- Outfalls (Inlets and Outlets)
- Stormwater Ponds
- Underground Detention Areas
- Emergency Overflows
- Other Stormwater Management Infrastructure

**Note:**

- The specific amount of data to be collected will be defined during scope development, though discussions with Town staff.

**Phase 4: QA/QC of Data**

In Phase 4, the Proposer will update and correct missing or incorrect assets and collect or correct attribution data for those assets. Town staff will provide a list of assets to be collected or corrected in all areas of concern. In all areas of concern:

- If attribution is the only needed update, the Proposer will update the production GIS table. The following areas of concern will be addressed in this phase:
  - Capital Improvement Projects (CIPs)
  - Town staff will review previous CIPs and determine if GIS updates are needed.
  - Project Manager will coordinate with CIP Engineer to obtain documentation and record drawings if available.
  - This type of project includes rehabilitations, extensions, and repair projects.
- If updated GPS locations are necessary, survey grade location data, as well as updated attribute data will be collected by the Proposer.

**2. The ArcGIS Online Cleanup will be implemented in the following phases:**

**Phase 1: Evaluation of Current Town ArcGIS Online (AGOL) Network and Data**

- Review GIS Strategic Plan to better understand current usage, condition, and needs of AGOL
- Review and understand information and data structure of the Town’s current AGOL environment
- Determine most time and cost-effective approach to cleanup data and determine usage of existing map applications

**Phase 2: Data and Map Application Cleanup**

- Determine data to remove and update. Provide Town staff with a detailed, comprehensive list of data, existing map applications, and other information in the Town’s current AGOL with recommendations on removal, updating, or other action.
- Cleanup and reorganization of data in AGOL pursuant to Town staff direction based on the assessment of the AGOL environment and data.

### **Phase 3: QA/QC of Data**

- The Proposer will evaluate the data to identify any missing or incorrect datasets or map applications, as well as run necessary tests to ensure data is properly configured and connections are working with map applications.

## **3. The Zoning Layer Update will be implemented in the following phases:**

### **Phase 1: Evaluation of Current Town Zoning Layer and Attribute Table Data**

- Review current layer file and attribute table
- Discuss with Town staff to determine specific update needs

### **Phase 2: Zoning Layer Creation and Attribute Table Data Input**

- Create new Zoning Layer with attribute table

### **Phase 3: QA/QC of Data**

- The Proposer will evaluate the data and compare the current Zoning Layer with the new Zoning Layer to ensure accuracy

## **Proposal Format**

The Town requires that the Proposer's proposal be submitted in the format outlined in this section. The Town reserves the right to require additional information or materials after the proposals are submitted.

- Keep responses simple and economical, providing a straightforward and concise description of the proposed solution to satisfy the requirements of this request.
- Display the Proposer's name in a prominent location on all submitted materials.
- Describe all products and services unambiguously and with precision.
- Costs incurred preparing and submitting a response to this request are entirely the Proposer's responsibility and not chargeable to the Town.
- All responses, documents, terms, and information related to the proposer's response to this RFP shall be submitted with the response package prior to the submission deadline. No separate schedules, agreements, terms, conditions, etc. shall be recognized or accepted if not submitted with the response to this RFP.

Proposals must include a table of contents listing all sections, figures, and tables. Proposals should be limited to no more than 20 pages in total length. Major sections and appendices



should be separated by labeled index tabs; pages must be numbered. Submitted proposals must address the requirements completely and accurately.

## **Introduction and Executive Summary**

Include a brief Introduction and Executive Summary of the major facts or features of the proposal, including any conclusions, assumptions, and recommendations the vendor desires to make. The Executive Summary should be designed specifically for review by a non-technical audience and senior management. Please keep this section focused on superior features or documented benefits that distinguish your services from those of your competitors.

Provide clear, descriptive information on the following:

- A description of the company's background and history, including year established, type of ownership and former names (if any).
- A current organizational chart of the company, with the name of the Project Manager for this project.
- Provide the number of offices, the locations for the company, and the location of the office that will most likely be working with the Town.
- Total number personnel currently available for the services described herein.
- Identify whether the bidder is the single source provider of professional services or if a sub-contractor will be used. If a sub-contractor will be used, please provide detailed information regarding the nature of the subcontracting work and descriptive information about the company.

**References:** Provide three (3) public sector client references that have contracted similar services. The reference list must include the following:

- Name of client, address, telephone number, and point of contact.
- Date work was performed.
- Brief description of work performed.

**Delivery Approach:** Describe in detail your approach to deliver the data requested in this RFP. Including, but not limited to, the following:

- Provide an implementation plan that includes the collection of data as described.
- Provide options for quality assurance and quality control measures that may be performed on data submissions before submittal to the Town.
- Provide general recommendations for collection of future construction and updates.

**GIS Experience:** Provide a description of the vendor's professional GIS experience, elaborating on involvement in providing professional services for data input, asset collection, and AGOL maintenance.

- Please include information on how your company was able to complete the project and deliverables on schedule.
- Include any Python experience.
- Include any Utilities and Stormwater specific experience (including basic understanding of water networking, wastewater flow, and stormwater conveyance systems).

- Include any experience with Geometric Networks, Topology, Modeling, Utilities Network Analyst
- Include any experience with the use of Versioning for GIS.
- Identify any additional value-added services that may be of interest to the Town.
- Describe the project risks associated with the GIS services elements of the project scope.
  - How can any potential risks be mitigated?
  - How can our collective interests be aligned to ensure project success?
- Include experience with AGOL organization, setup, and structuring
- Identify ways that have been used to determine map application usage

**Survey Experience:** Provide a description of the vendor’s professional surveying experience, elaborating on involvement in providing professional services for an asset collection program.

- Please include information on how your company was able to complete the project and deliverables on schedule.
- Identify any additional value-added services that may be of interest to the Town.
- Describe the project risks associated with the surveying services elements of the project scope.
  - How can any potential risks be mitigated?
  - How can our collective interests be aligned to ensure project success?

**Project Timeline:** Provide a summarized list of milestones necessary and sufficient for the entire project lifecycle to implement the scope identified in this RFP. Provide a preliminary Microsoft Project milestone schedule or timeline based upon the proposer’s best judgment and experience with an implementation beginning with the earliest date that you can begin implementation. The proposer should clearly identify all significant assumptions, tasks and decisions that are necessary to implement the program. To provide a ‘levelset’ for timing of project activities: The expectation is that the entire scope of work be completed no later than 7/15/2023. Earlier completion dates are definitely acceptable.

**Roles and Responsibilities:** Provide a clear description of roles and responsibilities for all participants/stakeholders in the project.

**Escalation:** What is your process for monitoring, escalating, and resolving issues that will arise during the project? In addition, describe how the company responds to daily issues and maintains close, effective communications with the Town Project Manager.

**Public Records Compliance:** The Town must adhere to the North Carolina Public Records Law which states that every public agency shall create an index of computer databases. Does your database schema contain any proprietary information that would prevent you from providing a copy of the database schema for the program?

**Safety:** Proposer must meet all OSHA Safety Requirements for field work, including Confined Space Entry (<https://www.osha.gov/Publications/osh3138.html>). Gas monitors must be calibrated, and bump tested a minimum of once per day for any day confined space entry is required. All employees must be provided with uniform fleet vehicles, and vehicles must be equipped with high visibility strobes, high visibility frequent stop signage on rear of vehicle, and “traffic” cones for front and rear of vehicle when stopped. All field personnel must wear matching and easily recognizable uniforms containing company name. Field personnel must wear all PPE as required by OSHA standards.

**Equipment:** Proposer must provide all equipment, vehicles, and required tools for this project.

**Security:** Describe the security measures used by the Proposer to safeguard data.

## **Selection Process**

Proposals will be evaluated for suitability, quality, and completeness to the Town by an Evaluation Panel. Selection(s) shall be made from all offers deemed to be fully qualified and best suited among those submitting proposals based on the evaluation of criteria in the RFP (detailed below).

The Evaluation Panel may cancel this RFP or reject proposals at any time prior to an award and is not required to furnish a statement of the reason why a particular proposal was not deemed the most advantageous. The Town reserves the right, as part of the selection process, to request on-site (or virtual) demonstrations and/or presentations. If such demonstrations or presentations take place, proposers will be selected for this process based on scores derived from the scoring matrix, which includes M/WBE participation, local availability, and all other applicable criteria. The scoring of the demonstration or presentation must be based upon the criteria from one or more of the original evaluation factors. After the demonstrations or presentations, each proposer will then be re-graded on the same criteria. The number of proposers chosen to take place in the demonstration/presentation process is subject to administrative discretion. The successful proposer(s) will be selected based on a combination of the proposal evaluation scores and the ability to provide the best overall solution for the success of the project. Scoring criteria will include M/WBE participation, local availability, and all other applicable criteria shown below.

Proposal and Potential Presentation Evaluation Scoring Criteria Below is a description of the evaluation criteria that will be used to evaluate each section of the proposals as well as any potential presentations. To be deemed responsive, it is important for the firm's proposal to contain appropriate detail to demonstrate satisfaction of each criterion and compliance with the performance provisions outlined in this RFP. The proposal and related appendices will be the primary sources of information used in the evaluation process. Proposals must contain information specifically related to the proposed products and services requested in this RFP. Failure of any firm to submit information requested may result in the elimination of the proposal from further evaluation.

The following weighted scale will be utilized by the Evaluation Panel to evaluate and score each proposal

- **M/WBE Commitment:** Proposer's efforts to comply with all the terms and conditions of the North Carolina's Minority and Women Business Enterprise (M/WBE) Program through award of subcontracts to minority and women-owned business enterprises and utilization of minority and women owned business enterprise suppliers to the fullest extent consistent with the efficient performance of this contract. If an entity is certified as a Minority Business by a state other than North Carolina, proof of certification must be submitted with the proposal.
- **Location of Business:** In order for the proposer to receive points allocated for location of business, the proposer shall submit the required documentation to comply with provision A ( Mooresville/Iredell County/Mecklenburg County presence) or provision B

(North Carolina presence) determined by the physical location of the firm (P.O. Box does not qualify).

- **Compatibility:** How well does the proposal describe the vendor's ability to successfully work with its proposed team (other vendors/subcontractors) and project stakeholders?
- **Methodology/Approach:** How well does the proposal indicate that the vendor has the organizational structure needed to successfully execute this project? How well has the vendor demonstrated a methodology to deliver the project as specified in this RFP and be responsible for the overall project deliverables? How well does the proposed implementation approach meet best practices for a project of this type, size, and environment? Does the proposal articulate a clear understanding of the Town's needs and expectations related to the project? Has the vendor demonstrated an understanding of the services requested by the Town by proposing a methodology and project timeline that will deliver a successful implementation of those services?
- **Experience/Knowledge:** Does the proposal present evidence of successful utility and AGOL project experience of similar complexity and size? Does the proposal describe an organization that will meet and support the level of service that the Town expects for the duration of the project? Does the proposal demonstrate that the vendor has the specific skills and resources needed to execute the project as specified in the RFP? How well do the references provided describe how the vendor has successfully implemented projects of similar or greater size and complexity? Does the proposed project team have the experience to implement the proposed methodology?

## **Proposal Evaluation Criteria**

The following weighted scale will be utilized by the Evaluation Panel to evaluate and score each Proposal for Project Management and/or Technical Support Services:

<b>Factor</b>	<b>Criteria</b>	<b>Weight</b>
1	M/WBE Commitment	5%
2	Location of Business	5%
3	Compatibility	10%
4	Methodology/Approach	20%
5	Experience/Knowledge	60%