

City of Mercer Island, WA



**2022 MOBILE ASSET DATA COLLECTION:  
Pavement Condition Index (PCI)  
Deflection Testing  
Sign Inventory  
Sign Retroreflectivity**

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## **SECTION 1.0 ADMINISTRATIVE INFORMATION**

The purpose of this Request for Proposals (RFP) is to solicit proposals from experienced Mobile Asset Data Collection Consultants focusing primarily on Pavement Condition Index ("PCI"), Deflection Testing, Sign Inventory and Sign Retroreflectivity technologies to collect updated pavement and sign information for the City of Mercer Island ("City").

Detailed information on the requirements is provided in Section 2.0: Project Information & Requirements.

### **1.1 REQUEST FOR PROPOSAL SCHEDULE**

The following schedule provides key dates for the consultant selection process. The City reserves the right to change these dates and will notify Consultants in such a case. All times listed are Pacific Standard Time.

<b>ACTIVITY</b>	<b>DATE</b>
Request for Proposal Release	On or before 5pm, Monday, June 6 <sup>th</sup> , 2022
Consultant Inquiries	By 5pm, Wednesday, June 15 <sup>th</sup> , 2022
City Response to Inquiries	By 5pm, Friday, June 22 <sup>nd</sup> , 2022
Proposals Due	By 5pm, Wednesday, June 29 <sup>th</sup> , 2022
Consultant Selection Announcement	On or before 5pm, Friday, July 20 <sup>th</sup> , 2022

### **1.2 SUBMISSION OF PROPOSALS**

Proposals are due no later than Wednesday, 5:00 PM, Pacific Standard Time on June 29<sup>th</sup>, 2022.

Proposals must be submitted in electronic format. The City prefers to receive proposals in PDF format, via email. Electronic copies may also be submitted on usb-storage devices.

Proposals should be marked as follows and sent to:

**EMAIL:**

To: [Leah.Llamas@mercerisland.gov](mailto:Leah.Llamas@mercerisland.gov)  
Subject: Mobile Asset Data Collection Proposal 2022

*(When a proposal submitted by email has been received, a response email will be sent to confirm receipt.)*

The City reserves the right to reject any or all proposals. A letter committing your firm to the proposal must be signed by a responsible and authorized officer of your organization and accompany the proposal.

The proposal must include all the requirements contained within this RFP.

Following submission of proposals and final evaluation, the City of Mercer Island will have the right to retain the proposals for any unsuccessful bids.

By submitting a proposal, the Consultant agrees to all applicable provisions, terms and conditions associated with this RFP.

### **1.3 CONSULTANT INQUIRIES**

Submit questions by email to the address listed below. No telephone questions will be accepted or considered. Consultants should refer to the specific RFP paragraph number and page and should quote the passage being questioned. The City will receive questions until 5pm on Wednesday, June 15<sup>th</sup>, 2022, and will send a reply to all the questions on or before 5pm on Friday, June 22<sup>nd</sup>, 2022.

The City will delete consultant names from the text of question(s) and answers being sent.

Leah Llamas, GIS Coordinator  
City of Mercer Island  
Email [Leah.Llamas@mercerisland.gov](mailto:Leah.Llamas@mercerisland.gov)

### **1.4 CONFIDENTIALITY**

All information contained in this RFP is the exclusive property of The City. This RFP is provided for the sole purpose of enabling Consultants to develop a response. All proposals submitted will be considered part of the public record except for any proprietary information that can be legally withheld under current federal and state public record laws. Information considered proprietary by the Consultant should be clearly labeled in the proposal.

### **1.5 OWNERSHIP OF MATERIALS**

All materials submitted in response to this RFP become the property of the City. Proposals and supporting materials will not be returned to consultants.

### **1.6 COST OF PROPOSALS**

The City shall not be responsible or liable for any costs incurred by the Consultants in the preparation and submission of their responses to this RFP, including vendor demonstrations if requested by the City.

### **1.7 LATE SUBMISSION**

Proposals received after the closing date will not be accepted. The City is not responsible for late delivery or proposals lost in delivery. Proposals postmarked on the due date will not be accepted unless received by the due date. Please refer to Section 1.1 for the due date.

### **1.8 ERRORS IN PROPOSAL**

The City is not liable for errors in consultant proposals. A Consultant may correct errors in submitted proposals with City approval. Changes after the submission date may be made only to correct an error in an existing part of a proposal. New material may not be submitted. No oral, telephone or faxed modifications, or corrections, will be accepted.

### **1.9 REJECTION OF PROPOSALS**

The City reserves the right to reject any or all proposals which are deemed to be non-responsive, late in submission, or unsatisfactory in any way. The City shall have no obligation to award a contract for product, work, goods, and/or services because of this RFP.

### **1.10 SUB-CONTRACTOR/PARTNER DISCLOSURE**

The Consultant may propose the entire solution. If the proposal by the Consultant requires the use of sub-contractors, partners, and/or third-party products or services, this must be clearly stated in the proposal. The City requires that the Consultants submitting proposals shall have primary project and service liability for all products and services which shall collectively meet the RFP requirements. The City will not refuse a proposal based upon the use of sub-contractors or third-party products. The consultant shall remain solely responsible for the performance of all work, including work that is sub-contracted.

### **1.11 EVALUATION AND SELECTION CRITERIA**

The City is interested in obtaining a complete solution to the requirements contained in this RFP. Proposals that meet the proposal instructions and requirements will be given a thorough and objective review. Proposals that are submitted after the proposal deadline, do not comply with proposal instructions, or take exception to mandatory requirements will be eliminated without further consideration.

The City believes that effective project management is essential for successful project implementation. Consultants will be evaluated on the completeness and responsiveness of their project management plans and the project team assigned. Project management approach and a demonstrated ability to meet project deadlines as well as reach successful completion of similar projects will be a primary consideration.

In addition, Consultants will be evaluated against the following criteria (listed in no order):

- Quality of submitted proposal and presentation, if applicable
- Cost of services
- Ability to meet the functional and technical requirements
- Ability to provide deliverables and documentation as stated throughout the RFP
- Financial stability of the organization
- Company experience with municipal governments
- Product viability
- Experience and qualifications of the company and its resources
- References
- Total cost of any licenses, if applicable
- License and maintenance agreement terms and conditions

### **1.12 CONSULTANT DEMONSTRATIONS**

The Consultant may be invited to give a scripted demonstration of the capabilities of the proposed solution to the City evaluation team. This demonstration (if requested), along with questions and answers, will be a critical component of the overall consultant evaluation.

### **1.13 CONSULTANT SELECTION**

The City reserves the right to make an award based solely on the information provided, to conduct discussion, or to request proposal revisions if deemed necessary. The Consultant selected for the award will be chosen based on the City's evaluation and determination of which Consultant will provide the greatest benefit to the City. Therefore, proposals should contain the Consultant's best terms as related to the submission requirements of this RFP.

### **1.14 CONTRACT NEGOTIATIONS**

The City will review all proposals and select a Consultant based on the submittals or request an interview with selected Consultants from which a final selection will be made or reject all proposals should none be deemed acceptable.

The City reserves the right to accept any proposal that serves its best interest and to reject any and/or all proposals and waive any irregularities. Award of this proposal will result in the two parties entering a contract.

### **1.15 RFP AMENDMENTS**

The City reserves the right to amend this RFP at any time prior to the closing date.

## **SECTION 2.0 PROJECT INFORMATION & REQUIREMENTS**

The City of Mercer Island is in Lake Washington between the cities of Seattle and Bellevue in Washington State. The City is 14 square miles in area with approximately 25,000 residents and is provided a full range of services by roughly 150 City employees (up to 200 employees during seasonal periods).

### **2.1 PROJECT OVERVIEW**

Mobile asset data collection project is conducted in which visual pavement distress information was used to determine Pavement Condition Index (PCI) values for the City's road network every 3 years starting in 2013. The last collection was in 2019. Data from this project is used to plan and prioritize future road maintenance and resurfacing projects. With the least overall cost, the City needs to record and report on the value and condition of its road network on an ongoing basis.

The City currently has approximately 83.59 centerline miles of publicly owned roadway in its network as follows:

- 25.3 miles of Arterial roads (30.3% of City's road network). These are primarily 2-lane roadways.
- 54 miles of Residential roads (64.67% of City's road network)
- 3.36 miles of roads within Unmaintained Public Right of Way areas (4 % of City's road network)
- .79 miles of City Facility Roads (.95 % of City's road network)

Please refer to **Appendix A** for a map that illustrates these roads within the City's road network.

In addition to collecting PCI information and Deflection Testing (as an option) on roadways, this project will also include a full inventory of all roadway signs and sign retroreflectivity conditions. Please refer to **Appendix B** for a map that illustrates roads identified for deflection testing.

## **2.2 PROJECT GOALS**

It is the intent of the City to contract with a qualified consultant to collect data, evaluate, calculate, and deliver a complete set of the following features:

**2.2a)** Collection of Pavement Condition Index (PCI) information for the City's entire road network

**2.2b)** Collection of all standard and non-standard City roadway signs

**2.2c)** Collection of signs retroreflectivity condition

**2.2d)** The City would also like to include the collection of deflection testing for selected roads determined by the City as optional deliverables to this project.

The scope of this work requires a mobile data collection approach with a GIS-based deliverable. The final database shall be delivered as an ESRI file geodatabase, and all data shall overlay with the City GIS basemap. The Consultant shall utilize the City's predetermined roadway network segments.

The City seeks a consultant with proven prior experience collecting road asset inventory and sign retroreflectivity. The consultant selected by the City shall have capable personnel immediately available to begin work and complete all the tasks according to the timeline outlined in Section 2.4, Project Schedule.

## **2.3 REQUIRED METHODOLOGY**

The City has divided the roadway network into pre-determined unique segments and will provide this data to the Consultant in a GIS feature class format. The City also has a signs layer that is largely accurate and up-to-date and will be provided. All data collected must correspond and tie to the roadway network segments provided by the City while preserving all network segments, and where possible, sign data to the existing sign layer.

Specific data will be delivered back to the City including Pavement Condition Rating (PCR), pavement material, pavement width, hyperlink to the corresponding right-of-way high-resolution digital image, date of collection and if City chooses to collect, data corresponding to Deflection Testing.

The Consultant shall use mobile data collection technologies to deliver the **high-resolution digital images** of the following:

**2.3a)** Clear roadway images at minimum and best practice intervals

**2.3b)** Clear sign images

The Consultant must use cameras capable of imaging the right-of-way in high resolution. The Consultant must ensure that the delivered imagery is not impeded by direct sunlight or dark shadows that would render the imagery unsuitable for use in identifying any Pavement Surface Conditions and Signs. The vehicle must be capable of traveling at posted roadway speeds without creating a hazard to other traffic utilizing the same facility. The Consultant will deliver all data, including high-resolution imagery, in GIS format, complete with all inspection data referenced to the unique road segment ID as defined by the City as well as Sign ID as assigned by the vendor.

If the City chooses Option 2 as outlined in Section 3.10 Pricing, the consultant will use deflection testing technology to collect data on road strength on selected road segments determined by the City as outlined below:

- **Option 2:** Deflection testing of arterial roads (25.3 miles, 100% of arterial network) and high-volume residential roads (7.4 miles, 13.7 % of residential network), for a total of 32.5 miles of roadway (39.2% of City’s road network)

Please refer to **Appendix B** for a map that illustrates the roads proposed for deflection testing.

The Consultant shall use American Society of Testing Materials (ASTM) D6433 "Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys" for determining Pavement Condition Index.

The Consultant shall use the Federal Highway Administration (FHWA) on Traffic Sign Retroreflectivity as a guideline for retroreflectivity collection for signs.

The project shall be comprised of the following tasks:

- Mobile data collection of all public City roadways
- Update of all City roadway signs via mobile data collection
- Post-Processing of raw data
- Data extraction of all road segments
- Data extraction of sign information
- Development of Pavement Condition Index
- Development of Deflection Testing (if City chooses to collect)
- Development of an updated City roadway sign inventory
- Collection of retroreflectivity index for roadway signs
- Collection of high-resolution images for roadway segments
- Collection of high-resolution images for roadway signs
- GIS-Based Delivery of all Data Products

Acceptance criteria:

- All georeferenced images shall have geospatially enabled header information to support the mapping of camera image locations.
- All deliverables shall be in a format that can be easily integrated with the City’s current geographic information system.

**2.4 PROJECT SCHEDULE**

The City’s intent is to execute a contract with the successful Consultant and to issue the Notice to Proceed by July 30th, 2022. The Consultant and the City shall adhere to the following project schedule for completion of work:

<b>MILESTONES</b>	<b>DATE</b>
Kickoff/Requirements Review Meeting	on or before Friday, August 19 <sup>th</sup> , 2022
Completion of Data Collection	on or before Friday, September 30 <sup>th</sup> , 2022
Data Delivery to City for Review	on or before Monday, October 31 <sup>st</sup> , 2022
Data Quality Control & Review by the City	on or before Wednesday, November 30 <sup>th</sup> , 2022
Completion, Acceptance & Close-out of Project	on or before Friday, December 30 <sup>th</sup> , 2022



## **2.5 PROJECT DOCUMENTATION AND METADATA**

The Consultant shall provide a complete set of data documentation, known as metadata, for each GIS feature delivered. The documentation will include data diagrams if needed, with a full explanation for each mapped classification type in the feature class. The City will be given permission to reproduce the documentation or parts of the documentation as needed. It is expected that the Consultant shall maintain its copyrights to all materials.

## **2.6 DELIVERABLES**

All products, including imagery, GIS data, and intermediate data produced as a result of this project, will be delivered to the City. These include but are not limited to:

- High resolution digital images/videos of roadway
- High resolution digital images of signs
- Pavement Condition Index score:
  - Pavement Condition Index score for streets without deflection testing applied
  - Pavement Condition Index score for roads with deflection testing applied (if City chooses to collect).
- Road network segment data provided by the City with additional information entered by the consultant regarding types of distress located on each segment
- GIS data related to Pavement Condition Index creation including but not limited to distress layers such as Alligator Cracking, Block Cracking, Transverse Cracking, Longitudinal Cracking, Bleeding, Patching, Raveling, Rutting, Reflective Cracking, Roughness Index for each roadway segment
- Intermediate data used to provide calculated results or other referenced deliverables
- Sign layer with information entered by consultant regarding attributes of each updated sign
- Sign retroreflectivity information
- Metadata on all layers delivered including the definition of each attribute column in each layer
- Deflection testing layer and information (if City chooses to collect)

The City will provide a GIS schema for the Road and Signs layer.

## **2.7 KICKOFF/REQUIREMENTS REVIEW MEETING**

The City will conduct a kickoff meeting with the Consultant after a fully executed agreement is in place to ensure that the project begins with clear expectations and results. The overall project history, goals and objectives, GIS requirements, source data input, and final data delivery expectations will be discussed. Other items include:

- Team Introductions
- Project Management and Communication
- Schedule and Change Control
- Project Specifications
- Project Documentation
- Data integration and Conversion Procedures
- QA/QC Process & Procedures
- Acceptance Criteria
- Project Closure and Acceptance

## **SECTION 3.0 CONSULTANT SUBMISSION REQUIREMENTS**

Consultants must include a project management plan for this project. The plan should be detailed enough to assure the City that the Consultant can deliver all required products within budget and meet all requirements as specified in this RFP. The City is looking for proposals that suggest step-by-step tasks, timetables, staffing numbers, personnel resumes, and responsibilities, for both the Consultant, any subcontractors, and the City.

### **3.1 TRANSMITTAL LETTER**

Provide a formal letter of transmittal with the proposal that commits the Consultant to its proposal and states that the proposed solution meets the requirements of each subsection of this RFP. The transmittal letter must be signed by an officer of the Consultant authorized to do so. Also include contact information for: (1) person responsible for answering questions regarding the proposal, (2) the person responsible for contract negotiation, and (3) the signer.

### **3.2 EXECUTIVE SUMMARY**

Provide an overview of the proposed solution including your company's unique abilities to meet the project requirements. Include exceptions to the RFP if any. This section need only be one to three pages.

### **3.3 COMPANY INFORMATION, HISTORY & PROFILE**

This section provides each Consultant with the opportunity of demonstrating how its history, organization, and partnerships differentiate it from competitors. Careful attention should be paid to providing information relevant to The City's needs. Provide a concise profile of your company to include the following:

- Full legal company name and year of establishment
- Organization address, phone number and primary contact information
- History of organization
- Location of corporation or head quarters
- Tax identification number
- Does another company own you or do you own other companies?
- Current number of employees
- Total number of completed data collection projects. Please included whether the projects were public or private, the size and scope of the projects, dates of completion and primary contact person for each project
- Availability to proceed with project
- Is the organization involved in any pending litigation that may affect its ability to provide its proposed solution or ongoing maintenance or support of its products and services?

### **3.4 PROJECT PLAN & PROPOSED SOLUTION**

The Consultant must include a plan for implementing the project described in this RFP. The plan must be comprehensive enough in scope and provide details that convey the Consultant's ability to manage this project. The plan must include project tasks, dates, and staffing levels. The ability of the Consultant to manage all aspects of this project is important.

Provide a detailed description of the proposed solution. Include software and hardware resources used, as well as data collection, post processing, and quality control techniques employed. Explain why the solution best meets the needs of the City.

### **3.5 SUB-CONTRACTORS/PARTNERS**

List any sub-contractors, partners, and/or third-party partners who are involved in fulfillment of the proposed solution. Describe the specific role of each.

### **3.6 REFERENCES**

Consultants must provide a list of at least three references from the past 5 years where the Consultant provided services for a similar project that is being proposed in this RFP. The City will contact these companies and will ask them about your technical capabilities, project management skills and their overall satisfaction with the product that was delivered.

The reference account information must be given in the format listed below.

- Customer/Account Name
- Street address, City/State/Zip code
- Contact name/title, telephone, and email address
- Summary of project
- Approximate cost
- Project Specifications

### **3.7 QUALITY ASSURANCE (QA) / QUALITY CONTROL (QC) PLAN**

The Consultant shall provide a document describing QA/QC procedures that will govern all data deliverables created. This document will provide a comprehensive description of all validation procedures and processes the Consultant will implement that ensures the final data delivery meets the requirements established by this project.

### **3.8 PROJECT TEAM**

List the project team. Provide names, roles, involvement levels and durations, and relevant experience for each person on the team. Describe the level of the City's staff involvement required during implementation.

### **3.9 SCHEDULE, METHODOLOGY & APPROACH**

- Provide outline and approach for the project
- Provide a proposed schedule for all implementation steps including durations for each step
- Define benchmarks in the implementation process
- Define criteria to determine when the project is complete
- Define your procedure for conflict resolution in the event of a disagreement with the City regarding performance

### **3.10 PRICING**

Please provide a pricing schedule on a per-mile basis that includes the following items of work:

**Option 1: Please provide line-item pricing for the following:**

- 1) Pavement Condition Index project mobilization
- 2) Pavement Condition Index collection
- 3) Pavement Condition Index data processing
- 4) Sign Inventory mobilization
- 5) Sign inventory collection
- 6) Sign Inventory data processing
- 7) Sign retroreflectivity mobilization
- 8) Sign retroreflectivity collection
- 9) Sign retroreflectivity data processing
- 10) Other associated project costs
- 11) Total for Option 1

**Option 2: Please provide line-item pricing for the following:**

- 1) Pavement Condition Index project mobilization
- 2) Pavement Condition Index collection
- 3) Pavement Condition Index data processing
- 4) Sign Inventory mobilization
- 5) Sign inventory collection
- 6) Sign Inventory data processing
- 7) Sign retroreflectivity mobilization
- 8) Sign retroreflectivity collection
- 9) Sign retroreflectivity data processing
- 10) Deflection Testing mobilization
- 11) Deflection Testing cost per test mile for arterial and high-volume residential roads
- 12) Deflection testing data processing
- 13) Other associated project costs
- 14) Total for Option 2

### **3.11 CONSULTANT'S SECTION**

This section is reserved for Consultants to provide information that they feel is necessary but was not requested. A response to this section is not required.

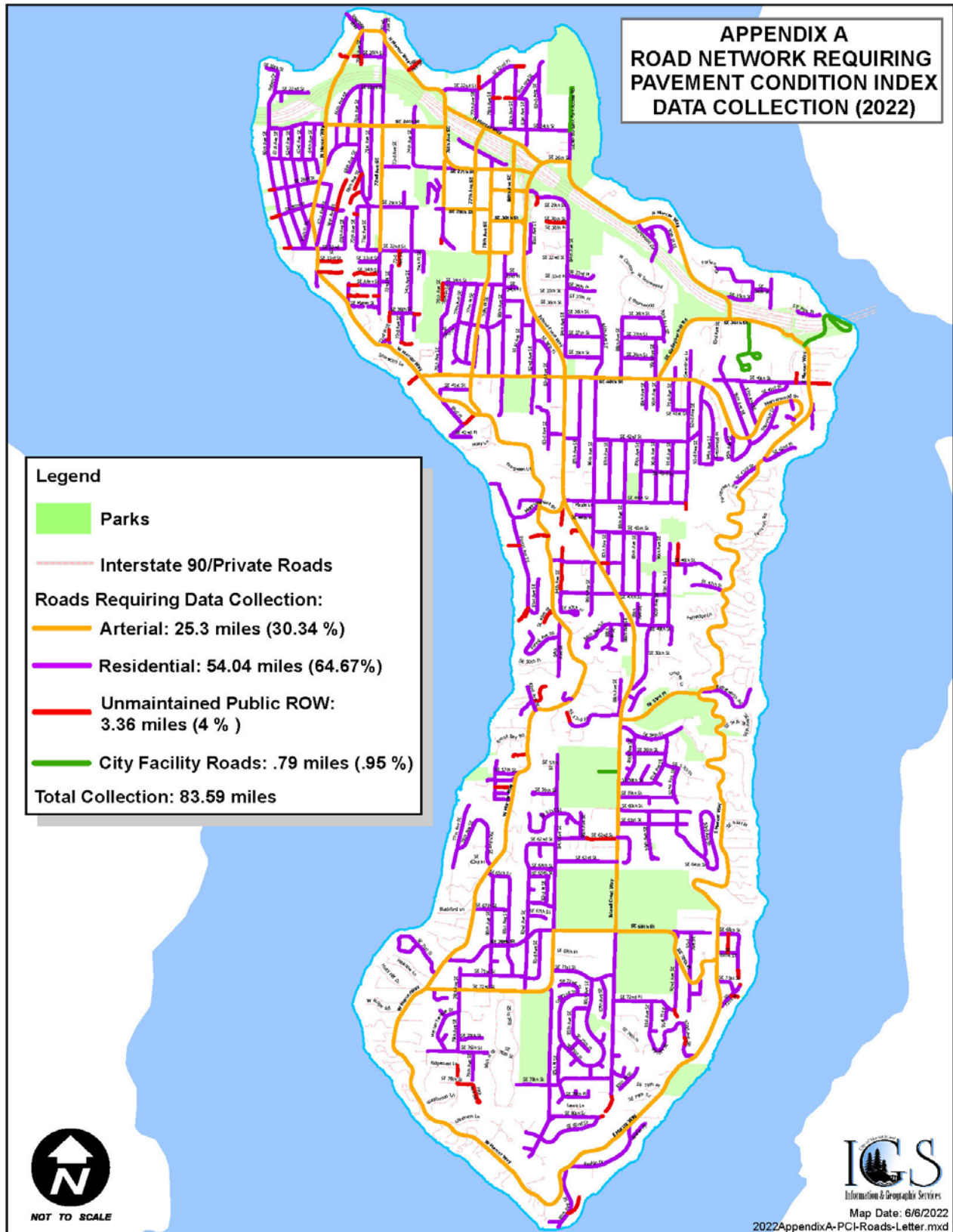
Consultants may discuss potential issues that are relevant to this RFP and to their proposal.

Consultants may comment on requirements that they may think are missing from this RFP.

### **3.12 WARRANTY**

Describe what is included with the Consultant's warranty.

APPENDIX A – CITY OF MERCER ISLAND ROADS REQUIRING PCI COLLECTION





**APPENDIX D – DEFLECTION TESTING COLLECTION OF ARTERIALS AND  
HIGH-VOLUME RESIDENTIAL ROADS**

