



INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Services Committee**
 FROM: **Hari Ponnekanti, Public Works Director/City Engineer**
 BY: **David Baus, Project Manager**
 CC: **Mayor Thomas McLeod**
 DATE: **May 17, 2024**
 SUBJECT: **2024 Pavement Condition Index Study**

ISSUE

Approve a contract with IMS for a 2024 Pavement Condition Index Study.

BACKGROUND/DISCUSSION

To help understand and forecast road maintenance the City has a Pavement Condition Index (PCI) study performed every 4 years. The last study was conducted in 2020. The study is made up from data collected by a van driving all roads in the City looking for signs of deterioration and distress such as cracking, rutting, surface wear, humps, bumps, and sags. Deliverables from this study will include: a report summarizing the findings of the pavement condition survey, client review spreadsheet with inventory, charts and graphs, and an Esri geodatabase points compatible with the City’s existing GIS system.

Financial Impact

This award has been confirmed as an eligible expense and will be fully funded by American Rescue Plan Act (ARPA) funds.

	Cost	ARPA Funding
PCI Study	\$52,890.00	\$52,890.00

RECOMMENDATION

Council is being asked to approve the contract with IMS in the amount of \$52,890.00 and consider this item on the Consent Agenda at the June 3, 2024, Council Meeting.

ATTACHMENTS:

- ICC-IMS Services Contract
- IMS Exhibit A



International Cybernetics Company, LP
IMS Infrastructure Management Services
10630 75th Street North, Largo, FL 33777
Phone: (727) 547-0696 www.imsanawsis.com

CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (“Contract”) is entered into on the ___ day of _____, by and between: International Cybernetics Company, LP (ICC) d/b/a Infrastructure Management Services (“Consultant”) with its principal office at 10630 75th Street North, Largo, FL 33777, Phone: 727-547-0696 and **City of Tukwila, Washington** with its principal offices at 6200 Southcenter Blvd, Tukwila, WA 98188 Phone: (206) 433-1800 (“Client”). Consultant and Client may hereinafter be referred to collectively as the “Parties.”

RECITALS

WHEREAS, Consultant agrees to fulfill and perform the work as set forth under Scope of Work above, and Client agrees to fulfill its obligations including providing information required for project setup and compensating the Consultant as set forth under Pricing above;

NOW, THEREFORE, the Parties hereto, intending to be legally bound, do hereby agree that the Scope of Work and Pricing above accurately reflect the work to be performed and the price to be paid, and

The Parties accept the standard Terms and Conditions of sale as described in the attached, below, and

The Parties agree that any modifications to the Scope of Work or Pricing will be agreed to in writing and explicitly acknowledged by both Parties in order to be binding, and

The Parties agree that any Agency, current or future, within the same state shall be allowed to participate in this agreement during the life of the contract, even if it is not listed amongst the solicitation participants. While this clause in no way commits an Agency to purchase from Agency’s awarded contractor, nor does it guarantee any additional orders will result, it does allow Agencies, at their discretion, to make use of Agency’s competitive process (provided said process satisfies their own procurement guidelines) and purchase directly from the awarded contractor. All purchases made by other Agencies shall be understood to be transactions between that Agency and the awarded vendor; the Agency shall not be responsible for any such purchases.

IN WITNESS WHEREOF, this Contract is entered into as of the day and year written above. The Client and Consultant hereby represent and warrant to each other that each of the signers below have the right, power, legal capacity, and authority to enter into and bind the corresponding organization to perform its obligations under this Contract, and that the signature and execution of this Contract has been duly authorized.

Reference **Exhibit A** for scope of work and fees, a total of **\$52, 890.00**

International Cybernetics Company, LP
d/b/a IMS Infrastructure Management Services

City of **Tukwila, Washington**

Date: _____

Date: _____

By: _____

By: _____

Printed Name: Michael Nieminen

Printed Name: _____

Title: CEO

Title: _____

Standard Terms and Conditions of Sale

Updated October 23, 2023

1. DEFINITIONS

- a. In these Terms and Conditions of Sale, "Seller" means International Cybernetics Company, LP and IMS Infrastructure Management Services, LP; and
- b. "Buyer" means the person, firm, organization, or corporation by whom the purchase order is given.
- c. "Products" means equipment, parts, and software sold by Seller.
- d. "Services" means data collection, processing, analysis, consulting, training, and similar activities performed by Seller for the Buyer.

2. THE CONTRACT

- a. All purchase orders must be received in writing and are accepted subject to these Terms and Conditions of Sale. No terms or conditions put forward by Buyer and no representations, warranties, guarantees or other statements not contained in Seller's quotation or Acknowledgement of Order nor otherwise expressly agreed in writing by Seller shall be binding on Seller.
- b. The Contract shall become effective only upon the date of acceptance of Buyer's order. For Services, such acceptance will be by a mutually executed contract, task order, notice to proceed, and all necessary Buyer-provided deliverables to allow the Seller to perform on contract, such as road network definition (GIS), analysis parameters, etc., or upon the date of fulfilment of all conditions stipulated in the Contract (the "Effective Date").
- c. No alteration or variation to the Contract shall apply unless agreed in writing by both parties. However, Seller reserves the right to effect minor modifications and/or improvements to the final deliverables of services before delivery provided that the performance of the services is not adversely affected.
- d. The Buyer, having taken full note of the characteristics of the products and services sold by Seller, particularly on the basis of the indications provided in documentation, catalogues and, where applicable, during presentations given by Seller, has satisfied itself as to the suitability of the products and services for its own needs. Where it has not contacted Seller for any additional details prior to the acceptance of the order, the Buyer acknowledges that it has been adequately informed.

3. VALIDITY OF QUOTATION AND PRICES

- a. Unless previously withdrawn, Seller's quotation is open for acceptance within the period stated therein or, when no period is so stated, within sixty (60) days after its date.
- b. Prices are firm for delivery within the period stated in Seller's quotation and are exclusive of (i) Sales Tax and (ii) any similar and other taxes, duties, levies or other like charges arising outside the State of Florida in connection with the performance of the Contract.

4. PAYMENT

- a. Payment shall be made according to the Seller's standard payment terms, unless defined otherwise in the Contract. Standard payment terms for Services are monthly progress payments based on services rendered during the month at the unit prices defined in the Contract. Invoices for Services will be dated on or before the last day of each month.
- b. Payment shall be made: (i) in full without set-off, counterclaim or withholding of any kind (save where and to the extent that this cannot by law be excluded); and (ii) in the currency of Seller's order confirmation within thirty days of date of invoice unless otherwise specified by Seller's Finance Department.
- c. Without prejudice to Seller's other rights, Seller reserves the right to: (i) charge interest on any overdue sums at 1% per month during the period of delay; (ii) suspend performance of the Contract (including withholding shipment) in the event that Buyer fails or in Seller's reasonable opinion it appears that Buyer is likely to fail to make payment when due under the Contract or any other contract; and (iii) at any time require such reasonable security for payment as Seller may deem reasonable.

5. DELIVERY PERIOD

- a. Unless otherwise stated in Seller's order confirmation, all periods stated for delivery or completion are measured from the Effective Date and are to be treated as estimates only not involving any contractual obligations or liability.
- b. Delivery of Services within the estimated timeframe depends upon the Seller's existing project commitments, fleet schedule, resource availability, access to the roads to be collected, and good weather (dry roads, temperatures above freezing). Any delays due to these variables may affect the delivery/completion period but shall not affect the Contract Price.
- c. Assumes assets to be collected are in the public right-of-way and unobscured from the line-of-sight of the data collection vehicle's cameras (ex: no significant vegetation or overgrowth, damaged, or vehicle obstruction). On two lane roads the 360-degree camera will capture assets in the direction of travel, and the 360-degree camera will capture the assets in the opposite direction. Therefore, only one pass will be required on these streets. Streets with more than two lanes may require additional passes depending on the number of lanes or division of lanes by median island.
- d. If Seller is delayed in or prevented from performing any of its obligations under the Contract due to the acts or omissions of Buyer or its agents (including but not limited to failure to provide specifications, working drawings, road network definition (GIS), analysis parameters, and/or such other information as Seller reasonably requires to proceed expeditiously with its obligations under the Contract), the delivery/completion period and the Contract Price shall both be adjusted accordingly.
- e. If delivery of Services is delayed due to any act or omission of Buyer, having been notified that Seller is awaiting the completion of Buyer's obligations, Seller shall be entitled to place the project on hold and cease further work on the project until such time that the obligations are met. Upon placing the project on hold, the Seller shall be entitled to invoice Buyer for all work completed to date including for partially-completed data collection, processing, or analysis and for undelivered data.

6. FORCE MAJEURE

- a. Force Majeure of any kind, unforeseeable production, traffic or shipping disturbances, war, acts of terrorism, fire, floods, unforeseeable shortages of labor, utilities or raw materials and supplies, strikes, lockouts, pandemics, acts of government, restrictions on travel, and any other hindrances beyond the control of the party obliged to perform which diminish, delay or prevent production, shipment, acceptance or use of the performed services/provided data, or make it an unreasonable proposition, shall relieve the party from its obligation to supply or reasonably accept, as the case may be, as long as and to the extent that the hindrance prevails.
- b. If, as a result of the hindrance, supply and/or acceptance is delayed by more than eight weeks, either party shall have the right to cancel the contract. Should the Seller's suppliers fail to supply him in whole or in part, the Seller shall not be under obligation to purchase from other sources. In such cases, the Seller shall have the right to distribute the available quantities among his customers as Seller deems fit.
- c. If, as a result of the hindrance, planned in-person or on-site visits by Seller staff for assembly, installation, implementation, training, or meetings are prevented or become impractical, Seller shall be relieved from such contract requirements. Seller shall make all reasonable efforts to complete assembly and installation at another suitable location provided the Buyer supplies any prerequisite equipment or material at such alternate location. Seller shall also provide any implementation or training services, and attend meetings, virtually or online to the maximum extent possible to satisfy the intent of the contract.

7. SOFTWARE

- a. Any published computer program, regardless of its form and the way in which it is provided to the Buyer, is protected by intellectual property rights owned by Seller. The Buyer benefits from a personal, non-exclusive, non-transferable usage and/or consultation right for its own needs, in accordance with the terms set out in the corresponding license. The usage right is conditional on the compliance with the terms appearing on the Buyer End User License Agreement (EULA). It is the responsibility of the Buyer to make itself fully aware of its rights and obligations referred to in the EULA and to comply with them. In the event of the blockage or disabling of the software as a

- result of user non-compliance with the rights acquired, Seller will send to the Buyer, on request by the latter, a commercial proposal to enable it to regularize its licensing rights, either by acquiring rights for additional users or for the number of simultaneous connections required for the usage of the software. The database and software licenses from third-party publishers, such as Microsoft, Pavemetrics, FLIR, or others, supplied where applicable by Seller to the Buyer under the terms of the order concerned, must only be used by the Buyer strictly within the framework of the utilization of the Seller software packages and the license contracts from the respective publishers of the software concerned (see in particular www.microsoft.com for SQL Server, etc.). The use of these databases and/or technologies is intended for the exclusive use of the associated Seller software applications.
- b. The Buyer shall be solely responsible for the implementation of any necessary procedures and measures intended to protect and to back-up its data and to prevent any virus or IT intrusions. It will be responsible for using appropriate media and back-up tools, or regularly checking them and carrying out frequent back-up operations appropriate to its activities. Prior to any software updates or technical intervention by Seller, the Buyer undertakes to carry out a back-up of all its data and databases.
 - c. Any software will be put into service by Seller as part of a service provided for in the Buyer's order. The installation of the software can only be carried out if the IT equipment, operating systems, and network supplied by the Buyer (i) possess characteristics in conformity with the recommendations issued by Seller; (ii) configured in accordance with the standards published by Seller; (iii) operate normally at the time of the installation and are free of any viruses or pirated software. The Buyer shall have sole responsibility for any partial or total damage or loss of information, and for the costs incurred by the repairs in the event of a breakdown or other incident. Any intervention made impossible once the Seller is in the Buyer's premises, as a result of the non-compliance of one or more of these items with the characteristics referred to above, shall nevertheless be invoiced at the quoted prices and due to be paid in full by the Buyer. Additional visits or interventions required will incur additional fees.
 - d. In the event that the Buyer wants a Seller software package to load data from another application or database (a third-party program or data source, etc.), Seller will proceed with the transfer of the data based on a prior order from the Buyer for the corresponding service. The responsibility of Seller shall be limited to the receipt of the Buyer's data, as Seller cannot be responsible for verifying the accuracy, quality, or fitness for purpose of the data or for guaranteeing that the data can be imported correctly or completely. The Buyer, having sole knowledge of its data, shall be obliged to verify, after completion of the data migration into the Seller packages, that it conforms to its expectations; it shall have a maximum deadline of 15 days following their receipt, to notify Seller in writing of any errors or omissions noted during its verification. The processing of any requests for modifications by the Buyer notified to Seller beyond this deadline will only be able to be carried out under the terms of a new order from the Client.
 - e. In order to benefit from upgrades and enhancements to the software that may be made by Seller, the Buyer must pay annual license fees for the software (maintenance contract). In this regard, there will be no obligation on Seller to adapt its software in such a way as to allow the utilization by the Buyer of systems, equipment or consumables supplied by a third party and/or non-compliance with Buyer's specifications. The provision of the updated versions of the software packages in application of the contract subscribed by the Buyer shall be carried out online. It is the responsibility of the Buyer to take note of the rights and obligations referred to in the contract corresponding to the service(s) subscribed for and to comply therewith.
 - f. The Client shall benefit from technical support for the software packages via the paid annual license fees. Training, consulting, and assistance in the appropriate utilization of the software shall be paid separately by means of an appropriate order for Services. It is the responsibility of the Client to take note of the rights and obligations referred to in the maintenance and service contracts and to comply therewith.
 - g. Except in cases where Seller is expressly subject to an obligation to perform, in view of standard practices within its profession, Seller, which undertakes to take all possible care with the execution of its obligations, is subject to an obligation of resources. The products and services acquired from Seller will be used solely under the direction, control and responsibility of the Buyer. Seller cannot be held liable for the consequences of abnormal utilization, inadequate setup or misconfiguration, poor performance on Buyer-supplied hardware, or any delay that is not the responsibility of Seller. The Buyer is informed that Seller shall not be liable for the quality, availability, and reliability of telecommunications networks, regardless of their nature, in the event of the transport of data or access to the internet. Each party shall only be liable to the other for direct losses that it has suffered as a result of any contractual failing by the other in meeting its obligations arising from the order issued. Neither party shall be obliged to compensate the other for any indirect losses, including in particular loss of income, loss of sales revenues or opportunity costs, whether the latter were foreseeable or not. In any event, the total liability of the Seller shall be limited to the value of the applicable Products and Services paid for on the date of any action seeking its liability.
8. NON-SOLICITATION
 - a. During execution of this contract and for a period of two (2) years following the Delivery Date, the Buyer will not, directly or indirectly, whether through an owner, partner, shareholder, consultant, agent, employee, co-venturer or otherwise, or through any other "person" (which, for purposes of this subsection, shall mean an individual, a corporation, a partnership, an association, a joint-stock company, a trust, any unincorporated organization, or a government or political subdivision thereof), hire or attempt to hire any active employee or contractor of the Seller or any affiliate of the Seller, assist in such hiring by any other person, or encourage any such employee to terminate his relationship with the Seller or any affiliate of the Seller.
 9. LIMITATION OF LIABILITY
 - a. Supplier's maximum aggregate liability for any and all losses, liabilities, expenses (including legal expenses), damages, claims or actions incurred under or in connection with a specific order or a particular blanket order issued, arising in or by virtue of breach of contract, tort (including negligence), misrepresentation, breach of statutory duty, strict liability, infringement of intellectual property rights or otherwise, shall in no circumstances exceed a sum equal to the total price of the order in question.
 10. STATUTORY AND OTHER REGULATIONS
 - a. If Seller's obligations under the Contract shall be increased or reduced by reason of the making or amendment after the date of Seller's quotation of any law or any order, regulation or bylaw having the force of law that shall affect the performance of Seller's obligations under the Contract, the Contract Price and delivery period shall be adjusted accordingly and/or performance of the Contract suspended or terminated, as appropriate.
 11. COMPLIANCE WITH LAWS
 - a. Buyer agrees that all applicable import, export control and sanctions laws, regulations, orders and requirements, as they may be amended from time to time, including without limitation those of the United States, Canada, the European Union and the jurisdictions in which Seller and Buyer are established or from which items may be supplied, and the requirements of any licenses, authorizations, general licenses or license exceptions relating thereto will apply to its receipt and use of services provided.
 - b. Buyer agrees furthermore that it shall not engage in any activity that would expose the Seller to a risk of penalties under laws and regulations of any relevant jurisdiction prohibiting improper payments, including but not limited to bribes, to officials of any government or of any agency, instrumentality or political subdivision thereof, to political parties or political party officials or candidates for public office, or to any employee of any customer or supplier. Buyer agrees to comply with all appropriate legal, ethical and compliance requirements.
 12. DEFAULT, INSOLVENCY AND CANCELLATION
 - a. Seller shall be entitled, without prejudice to any other rights it may have, to cancel the Contract forthwith, wholly or partly, by notice in writing to Buyer, if (i) Buyer is in default of any of its obligations under the Contract and fails, within 30 (thirty) days of the date of Seller's notification in writing of the existence of the default, either to rectify such default if it is reasonably capable of being rectified within such period or, if the default is not reasonably capable of being rectified within such period, to take action to remedy

- the default or (ii) on the occurrence of an Insolvency Event in relation to Buyer. In the event of cancellation, Buyer shall be responsible for all payments to the Seller for any deliveries completed and milestones met up to the date of termination.
- b. Buyer shall be entitled, without prejudice to any other rights it may have, to cancel the Contract forthwith, wholly or partly, by notice in writing to Seller, if (i) Seller is in default of any of its obligations under the Contract and fails, within 30 (thirty) days of the date of Buyer's notification in writing of the existence of the default, either to rectify such default if it is reasonably capable of being rectified within such period or, if the default is not reasonably capable of being rectified within such period, to take action to remedy the default or (ii) on the occurrence of an Insolvency Event in relation to Seller. In the event of cancellation, Buyer shall be responsible for all payments to the Seller for any deliveries completed and milestones met up to the date of termination.
- c. "Insolvency Event" in relation to Buyer means any of the following: (i) a meeting of creditors of Buyer being held or an arrangement or composition with or for the benefit of its creditors being proposed by or in relation to Buyer; (ii) a charge holder, receiver, administrative receiver or similar person taking possession of or being appointed over or any distress, execution or other process being levied or enforced (and not being discharged within seven days) on the whole or a material part of the assets of Buyer; (iii) Buyer ceasing to carry on business or being unable to pay its debts; (iv) Buyer or its directors or the holder of a qualifying floating charge giving notice of their intention to appoint, or making an application to the court for the appointment of, an administrator; (v) a petition being presented (and not being discharged within 28 days) or a resolution being passed or an order being made for the administration or the winding-up, bankruptcy or dissolution of Buyer; or (vi) the happening in relation to Buyer of an event analogous to any of the above in any jurisdiction in which it is incorporated or resident or in which it carries on business or has assets. Seller shall be entitled to recover from Buyer or Buyer's representative all costs and damages incurred by Seller as a result of such cancellation, including a reasonable allowance for overheads and profit (including but not limited to loss of prospective profits and overheads).
13. DATA RETENTION
- a. This section defines the Seller's data retention policy for Services projects. The data collected by the IrisPRO Pave takes up over 6 GB per mile (Raw) and 3 GB per mile (Processed). Data storage costs are significant for this volume of data. Therefore, Seller has implemented a data retention policy to clarify its standard operating procedure.
- b. Definitions
- c. "Raw data" - Sensor data collected by the collection vehicle that is saved in proprietary formats and cannot be used directly. This includes .drive files, PGR files, and FIS files.
- d. "Processed data" - Data that has been transformed into usable formats by the Connect software. This includes CSV, XLSX, SHP, GDB, and JPG files.
- e. "Data Acceptance" - Buyer acceptance of delivered data and confirmation that deliverables meet the project requirements.
- f. Policy
- g. Seller will provide a quotation for hosting of any collected data for any duration upon request.
- h. Seller will retain Raw data for 3 months beyond Data Acceptance, unless the client confirms in writing that Seller should store the data longer and confirms that client will pay for the additional hosting costs. Beyond this time, Seller may delete the Raw data without further notice. After the Raw data has been deleted, reprocessing of the sensor data will not be possible. For example, crack detection cannot be run with different settings, and new image views cannot be extracted from the Ladybug camera.
- i. Seller will retain Processed data for 15 months beyond Data Acceptance, unless the client confirms in writing that Seller should store the data longer and confirms that client will pay for the additional hosting costs. This timeframe allows Seller to perform year-to-year analysis and comparisons provided that the same roads are collected annually. Beyond this time, Seller may delete the Processed data without further notice. After the Processed data has been deleted, year-to-year analysis and comparisons will be limited to data review only.
14. MISCELLANEOUS
- a. No waiver by either party with respect to any breach or default or of any right or remedy and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound.
- b. If any clause, sub-clause or other provision of the Contract is invalid under any statute or rule of law, such provision, to that extent only, shall be deemed to be omitted without affecting the validity of the remainder of the Contract.
- c. Buyer shall not be entitled to assign its rights or obligations hereunder without the prior written consent of Seller.
- d. Seller enters into the Contract as principal. Buyer agrees to look only to Seller for due performance of the Contract.
15. WARRANTY
- a. Seller warrants to Buyer that it will perform the services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. Seller makes no other warranties or guarantees, expressed or implied, relating to Seller's services or software provided by itself or others, and consultant disclaims any implied warranties or warranties imposed by law, including warranties of merchantability and fitness for a particular purpose.
- b. REMOVED
- c. The Contract shall in all respects be construed in accordance with the laws of the State of Washington. All disputes arising out of the Contract shall be subject to the exclusive jurisdiction of the courts of the State of Washington and King County of WA.
- d. The headings to the Clauses and paragraphs of the Contract are for guidance only and shall not affect the interpretation thereof.
- e. All notices and claims in connection with the Contract must be delivered in writing.
- f. Unless mentioned to the contrary in writing, the Buyer authorizes Seller to cite its name in its business references, websites, and social media.
- g. **The agreement term shall be one (1) year commencing on the Effective Date. The agreement may be extended for additional consecutive terms, not to exceed a total of five (5) years, subject to appropriations and the mutual agreement of Consultant and the Client.**
16. INSURANCE
- a. Consultant shall maintain liability insurance in the following minimum limits:
- Comprehensive General Liability Insurance (bodily injury and property damage)
 - Combined Single Limit Per Occurrence \$ 1,000,000
 - General Aggregate \$ 2,000,000*
 - Commercial General Liability Insurance (bodily injury and property damage)
 - General limit per occurrence \$ 1,000,000
 - General limit project specific aggregate \$ 2,000,000
 - Automobile Liability Insurance
 - \$ 1,000,000
 - Workers' Compensation at statutory limits
- * General aggregate per year, or part thereof, with respect to losses or other acts or omissions of Consultant under this Agreement.

EXHIBIT 'A'



Quote for Professional Services Pavement Management Program Update



David Baus | Project Manager
City of Tukwila, Washington

May 2, 2024

International Cybernetics Company, LP dba
IMS Infrastructure Management Services
Jim Tourek, Client Services Manager

IMS Today and Pavement Management Services Offered

IMS Infrastructure Management Services, LP is pleased to submit a quotation to update the City's pavement management program. IMS is an industry leader with 38 years of pavement and asset management experience. Since our founding in 1985, we have provided similar services to more than 1,000 municipalities across the United States. **Collectively, the IMS engineering team brings more than 350 years of pavement and asset management experience to the table.**

IMS brings significant regional experience and expertise to meet the City's pavement condition assessment, right-of-way asset, and software integration. As we understand from the 2020 project, the City of Tukwila currently maintains approximately 90 centerline miles of roadway. IMS has performed objective pavement data collection for similar agencies such as *Arlington, Auburn, Bainbridge Island, Bellevue, Bellingham, Bonney Lake, Bremerton, Des Moines, Edmonds, Federal Way, Federal Way Link Extension, Issaquah, Kitsap County,*



Members of the IMS Engineering, Technical and Sales Teams at our December 2022 in-service meeting week.

Longview, Lynnwood, Marysville, Mason County, Mill Creek, Mercer Island, Pasco, Port Orchard, SeaTac, Seattle, Snohomish County, Spokane Valley, Tacoma, Tukwila, University Place, Yakima, Yakima County, and more in Washington. To ensure adequate coverage across the network the Road Surface Tester (RST) typically surveys the arterial and collector roadways in each direction while testing the residential roadways in a single direction, but for the revised quote we're proposing all paved roads surveyed in both directions, for a survey mileage of an IMS estimated **180 miles survey miles**. The RST is equipped with a Laser Crack Measuring System 2 (LCMS-2) that is the most technologically advanced data collection equipment available in the industry.

In addition to our recent experience in the area, it is worth noting that the IMS team has grown significantly since 2019, both in staffing and equipment. In 2021, we appointed a new Principal Engineer and President, Kurt Keifer, PhD, PE. Kurt (**based in Austin, TX**) brings over 20 years of experience to projects, and his background is at the core of the industry, with experience working for the US Army Corps of Engineers and developing the ASTM D6433 protocols.

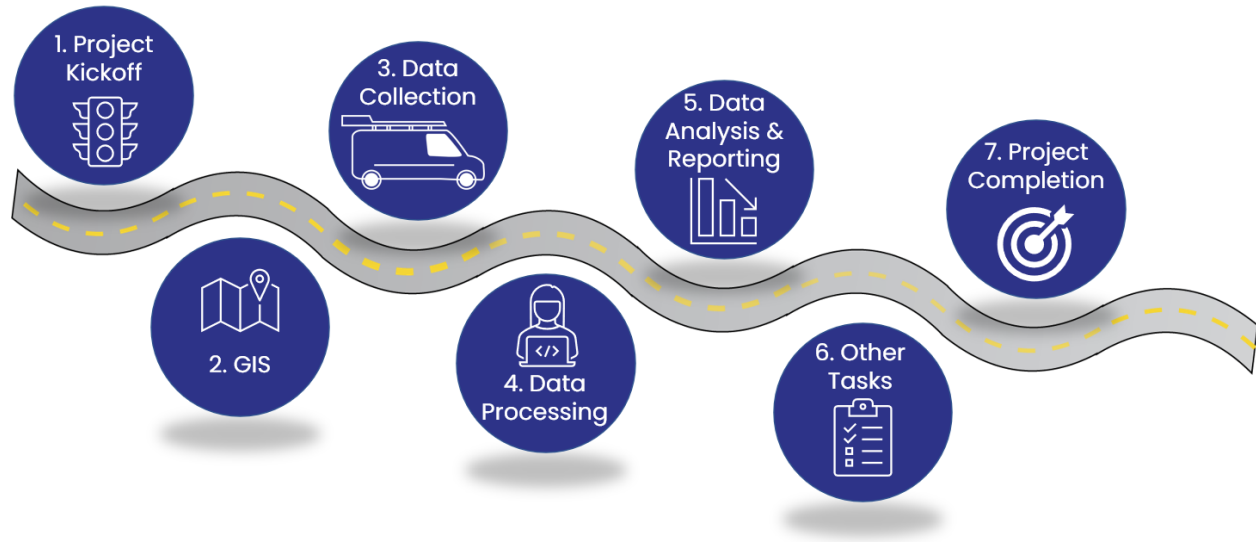
We have added six pavement engineers and nine GIS analysts to our team along with five state-of-the-art Road Surface Testers (RST) equipped with the latest 3D Laser Crack Measurement System (LCMS-2) technology. We have also added Fast Falling Weight Deflectometer (FastFWD) pavement structural testing equipment along with mobile Lidar technology for asset inventories and ADA sidewalk and ramp compliance surveys. The combination of our larger technical team and fleet of testing equipment provides IMS with greater capacity and redundancy for completing larger projects in a timelier manner.

We are confident that IMS will be the ideal partner to ensure that the City achieves its project goals, given our past successful work with the City, our significant regional experience, and our possession of the largest fleet of advanced pavement data collection systems in the United States.

Project Overview

Scope of Work

The IMS project approach for pavement condition and asset inventory projects typically follows the seven steps shown in the graphic below. In this section, we detail the specific tasks and milestones that will be required for the successful completion of this project.



IMS assigns seasoned pavement engineers as the project managers for all our projects. We believe it is imperative that the project manager have the requisite technical and domain knowledge – as well as practical project management experience – to lead the team. Our project management process is based on thorough planning, proactive management of schedules, and constant communication. The result of effective project management is higher quality with respect to project deliverables and satisfied stakeholders.

Kickoff Meeting

IMS has standardized a project approach based upon our 38 years of pavement management experience and the subsequent lessons learned after performing hundreds of projects. Detailed conversations with our clients allow us to tailor a solution to the specific needs of an individual municipality.

A prerequisite for a successful project is an initial project meeting with the City team members and the IMS team. This early communication is critical to ensuring that we are fully aligned with the City's overall vision for this project as well as the specific data needs for the City. Through this project initiation process, we will prepare the project plan for overall implementation. The plan includes:

- Contacts and stakeholders
- Measurable tasks and milestones
- Project approach and specific data collection methods
- Allocation of resources, including personnel and equipment
- Deliverables and schedule
- Performance and schedule risks

We will ensure that the plan remains current with any further data needs. Our Project Initiation Form and GIS Setup Form are part of our process, where the outcome will include a final project plan and an approved schedule in collaboration with the City's staff and stakeholders. This plan is established before any data collection begins. Project requirements are incorporated in the two project success documents. The project success documents ensure transparency and act as a reference point to ensure all stakeholders are accounted for and involved.

GIS Survey Mapping

Our data collection plan relies on a complete and up to date GIS street centerline. Shortly after the kick-off, our Esri GIS experts will review and update the City's street centerline data to ensure there is an accurate inventory of streets to be surveyed. City review of the centerline data is a critical path activity to ensure timely and accurate data collection. Once the inventory is confirmed by the City, the IMS team will prepare the GIS maps that guide field data collection.

IMS will produce survey maps to clearly indicate where our equipment will travel to collect data. While we would expect the City's GIS environment to be highly accurate, we find it valuable to ensure that we are aware of exactly which roads are included in the project and that we discuss how to proceed with roads, such as private roads that should not be collected. Any questions regarding the roadway network will be resolved prior to data collection. IMS will also confirm the linkage of the road segmentation to the City database and GIS, using the customer defined existing road segments.

Quality Management Plan (QMP)

Based on discussions with the City during the project initiation and kickoff meetings, IMS will develop a project-specific version of our standard QMP for this project. The plan will address the following:

Phase 1. Project Planning – Before Data Collection

- Project team and schedule
- Equipment calibration and control sites
- Rater calibration

Phase 2. Project Execution – During Collection & Processing

- Fast-tracked data collection, processing, and reporting
- Production data collection and processing
- Routine equipment inspection and calibration

Phase 3. Data Delivery – Post Data Processing

- City acceptance and corrective action procedures
- Final data review
- Database delivery and technical memo



IMS' standard Quality Management Plan (QMP) document that is customized for each project.

New to the IMS Project Workflow: Our engineering team has worked extensively to improve the AI and data processing algorithms of the LCMS-2 technology. This has resulted in more repeatability, improved automation (quality and speed), and better data. Our stated goals are to continuously improve and build upon the tools at our disposal to deliver the best data to our clients.

Pavement Condition Survey

Our two-person field crews will collect both outward facing and downward facing pavement imagery, using one of our RSTs equipped with LCMS-2 3D pavement imaging technology. Pavement surface distresses including load cracking, block cracking, rutting, raveling, reflective cracking, loss of section, bleeding, edge distress, and patched areas as well as right-of-way imagery will be collected on a segment-by-segment basis, with each distress being captured by type, extent, and severity. The data and imagery that is collected is then linked to the City's existing GIS data.

The LCMS-2 system is the highest resolution 3D pavement scanning technology available. Each LCMS-2 system relies on two downward-facing, high-resolution 3D cameras. Combined, the two 3D cameras capture continuous downward imagery for more than a standard lane width. The cameras are coupled with downward-facing lasers that provide constant and consistent illumination of the pavement surface regardless of ambient lighting conditions. The impacts of shadows from trees, buildings, or simply overcast sky conditions are eliminated by the laser illumination.



*IMS Road Surface Tester (RST) equipped with Laser Crack Measurement System (LCMS-2)
(Note: IMS has five RST LCMS-2 equipped systems dedicated to municipal pavement management.)*

The 3D cameras can detect one-millimeter-wide cracks and full-lane-width rutting, as required by ASTM D6433, on the pavement surface at speeds up to 65 mph. Due to the versatility of the LCMS-2 technology, the automated pavement condition survey will be performed at posted speeds, and traffic control will not be necessary for the data collection effort. Pavement data collection and imagery surveys are expected to progress at a rate of between 35 and 50 miles per day for the City.

The IMS team then processes the collected data using a combination of advanced analytical tools and rigorous, manual QC/QA performed by IMS' certified Pavement Condition Index (PCI) raters to determine accurate and repeatable PCI values for each roadway segment. Furthermore, we deliver our PCI ratings and supporting data (distress information, rutting, and IRI values) in both spreadsheet and GIS formats for easy review. The data that we provide may be used immediately for decision making or be imported into any pavement management system.

Any distresses that are not captured by the automated LCMS-2 system will be captured by our trained in-vehicle distress raters. The automated data is supplemented by information collected by the second crew person in the van using a mobile mapping solution known as NOMAD™. The NOMAD™ file format is part of IMS' unique approach to pavement condition surveys. The NOMAD™ files contain useful information for our field crews, including direction routing information and one-pass versus two-pass data collection instructions, and allow our trained field staff to capture additional condition and inspection information that is used by our QC/QA team to validate condition data.



IMS' customizable touchscreen NOMAD™ interface for entering notes and supplemental field data.

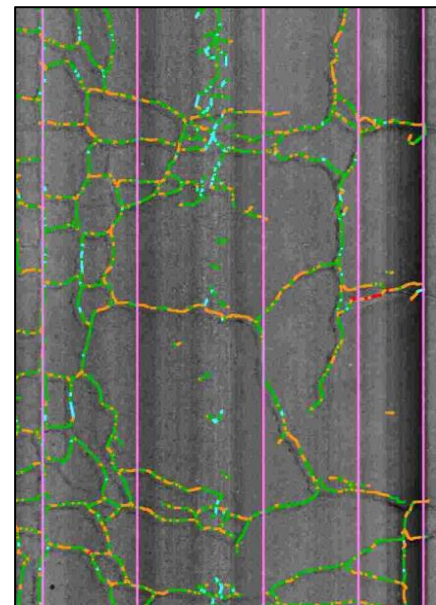
During data collection, IMS implements routines that are performed each day of data collection to ensure data consistency. These include:

- Equipment is calibrated, and daily reports are completed.
- All sensors are continually monitored to ensure they are receiving data within specification.
- The Crew Chief and operator manually monitor the HD digital images, GPS, distress recorder, roughness measurements, and rutting data.
- Each street is noted on the inventory and map, as well as through GPS and assignment of the RST van number.
- Production is tracked and records of coverage are documented.
- A corrective action plan is followed, as necessary.
- All data is backed up and sent to the IMS main office for processing.

ASTM D6433 Pavement Condition Evaluation

During and following the data collection effort, our team will evaluate all collected pavement imagery and surface measurements to arrive at Pavement Condition Index (PCI) values. This is a six-step process that includes the following tasks:

1. **RoadInspect™ Pavement Distress Detection** – Cracks, rutting, and other pavement distresses are automatically detected in both the 2D and 3D pavement images. IRI values are also calculated at this time. *(Note: The RoadInspect™ software was developed by Pavemetrics, the firm that manufactures the LCMS-2 technology.)*



LCMS-2 cracking data in QC/QA review stage.

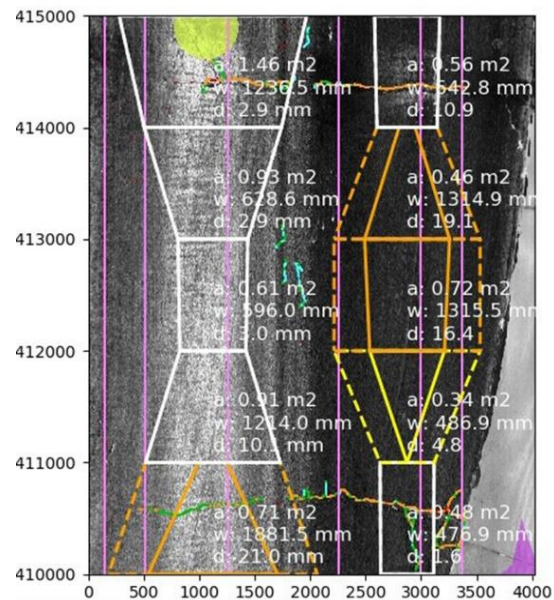
2. **IMS Pavement Distress Classification** – Pavement distresses detected by the RoadInspect™ software are then classified by type (e.g., alligator cracking, bleeding, edge cracking, etc.) and severity (e.g., low, medium, or high) based on predefined criteria (e.g., ASTM D6433). IMS has created a suite of custom tools that include rule-based algorithms in conjunction with artificial intelligence to accurately classify pavement distresses.
3. **IMS PCI Calculation** – Pavement distress data is imported into IMS' PCI calculation software, and PCI values are determined for each roadway segment using a scale from zero (0) to one hundred (100) as defined in ASTM D6433.
4. **IMS Quality Control (QC)** –The IMS project manager then does a review of the data and works with the QC team lead to address any issues that may be identified.
5. **IMS Quality Assurance (QA)** – The IMS project QA Manager independently reviews the rated data and works with our Project Manager and QC team to correct any issues observed.
6. **Client QA** – The IMS Project Manager reviews the findings of the pavement condition data with City staff before beginning any analysis activities. IMS will present the pavement condition data in a Client Review Spreadsheet (CRS) along with maps illustrating pavement conditions for the client to independently review.

Rutting and Roughness

IMS' LCMS-2 systems detect rutting on asphalt roadways using laser measurements of transverse profiles that are collected continuously as the vans drive at normal traffic speed. With more than 4,000 measurement points collected per transverse profile and sub-millimeter vertical accuracy, the LCMS-2 can define transverse profiles with a high level of precision, accuracy, and repeatability.

Once all the transverse profiles are collected for a roadway, IMS uses the Brazilian Method, which is an industry standard method, to determine the rut area and the deepest (or maximum) rut depth for the profiles. These values, as well as width of rut and color coding, can be seen in the LCMS-2 laser image to the right. Red represents high severity rutting, while orange represents moderate severity rutting. The severities are determined based on maximum rut depth thresholds that are specified in ASTM D6433.

Pavement roughness is evaluated by measuring the accumulated difference in the vertical displacement of a road surface, independent of chassis response, over a prescribed road length (longitudinal profile). This roughness is typically reported via the International Roughness Index (IRI). IRI data is calculated in real time from continuous longitudinal profile data collected by the LCMS-2's 3D profile device. To determine the road profile, data is simultaneously obtained from three devices: a pulse transducer-based distance-measuring instrument (DMI), high-speed 3D laser sensors operating at 112 MHz, and an accelerometer in compliance with ASTM E 950. The LCMS-2 unit conforms to a Class I profiling device, and it can also "pause" over non-valid roadway sections such as localized maintenance activities, railroad crossings, speed bumps, and brick inlays and not affect the IRI value.



Rut area and severity levels shown on the LCMS-2 composite image.

Quality Control and Quality Assurance

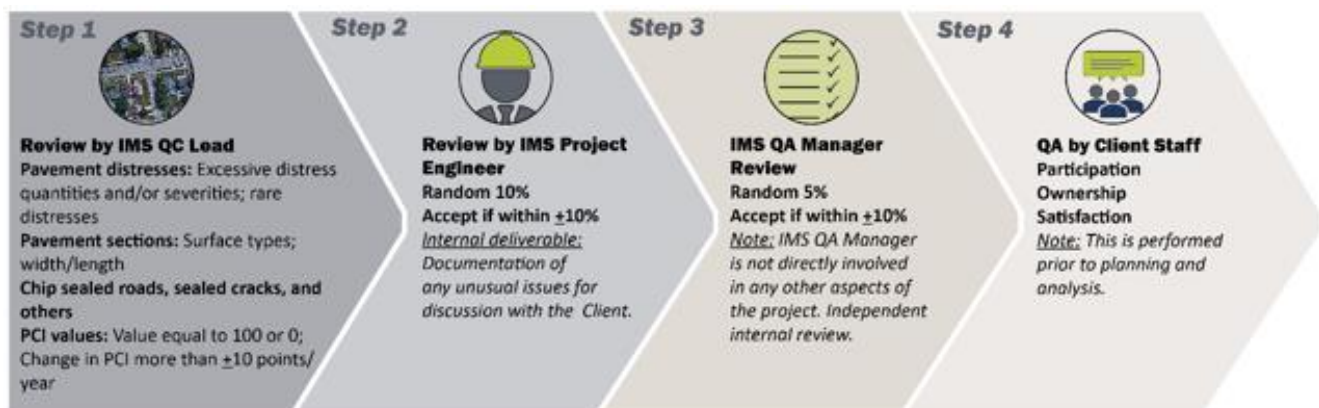
IMS has developed a unique approach to pavement condition assessments by coupling manual review of distress data with automated algorithms. This more rigorous QC/QA process ensures that the automated distress detection and classification algorithms that we use work correctly. Our Pavement Engineering team fully understands the capabilities and limitations of the state-of-the-art LCMS-2 technologies and sophisticated algorithms that we employ, and our QC/QA steps are extremely important in ensuring the success of the project.

The IMS QC/QA process is comprehensive and makes use of field observations, automated data processing tools, manual data review by our QC team, independent review by our QA manager, and lastly, final review by the City. There are QC/QA checks at each stage of the project to ensure data quality before the data is moved into the next steps.

Machine learning and artificial intelligence have made leaps and bounds in speeding up distress identification. And when supplemented with trained pavement raters, field staff, and expert engineers, they establish high data confidence and integrity. The final quality assurance performed by City personnel will ensure that the City has confidence in and takes ownership of the condition data.



New QA Tool! IMS QC/QA interface for manually reviewing automated distress detection and classification results.



IMS' rigorous, multi-step approach to QC/QA of pavement condition data to ensure ASTM D6433 compliant data.

The image above depicts the new QA tool developed by the IMS engineering team to assist our quality control team review the LCMS-2 automated data and field imagery to ensure a representative product. The flow chart below illustrates the 4-step process that has been improved and recently streamlined.

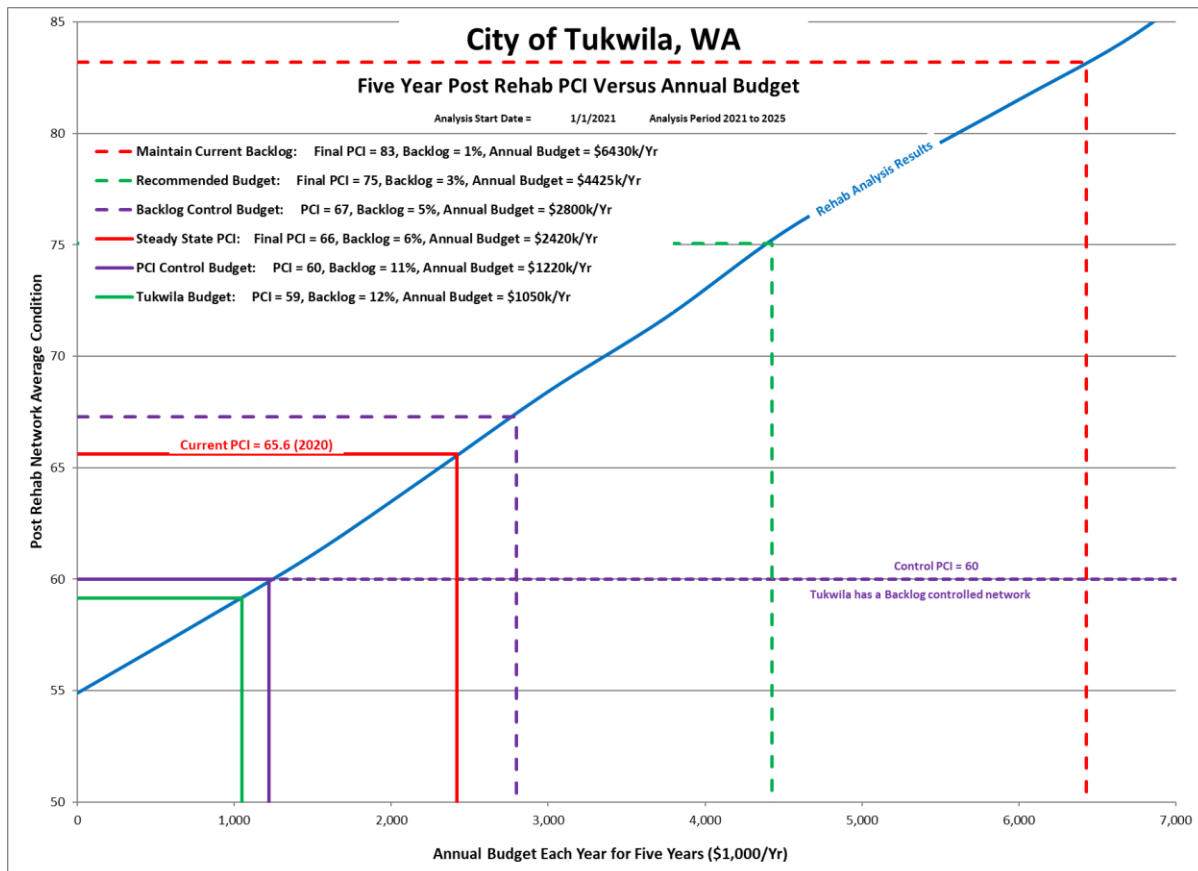
Analysis for the 2023 Project

Once the QC/QA process has been completed, our project team will deliver a Client Review Spreadsheet (CRS). This spreadsheet includes the pavement inventory, life-cycle cost estimates, and the familiar graphs and charts to understand the health of the network. This information will provide quality data, based on sound engineering principles, and realistic budgets for the City staff to utilize in their project selections and internal analyses.

Once the City reviews the PCI data, the Project Manager will set up a meeting with City staff to discuss the analysis requirements and identify additional budget scenarios to prepare. At a minimum, the following pavement management scenarios have been recommended, based on the simplified approach to this project:

- Annual funding required to maintain existing pavement conditions.
- Funding required to maintain an average PCI of 65 over the next 5 years.
- Funding allocation for asphalt overlay and/or surface treatments to maintain an average PCI of 70 over the next 5 years.
- PCI for the network if current funding levels remain the same for the next 5 years.
- Recommended pavement strategies for the various budget scenarios investigated.

We look forward to collaborating with the City staff to ensure that the pavement management program addresses the needs and priorities of the stakeholders involved. If the City has requested utilizing the **Easy Street Analysis (ESA) Excel spreadsheet**, similar to what IMS delivered for the City of Tukwila from 2020 (see graph, below) has used for the past several years. As with most recent projects, we plan to run budget scenarios and develop paving projects with our streamlined approach utilizing the referenced IMS solution.



Capacity to Perform Work

IMS employs 49 full-time staff, including 8 pavement engineers – five of whom hold PhD degrees in pavement engineering, 10 GIS analysts and technicians, nine independently, OCTA certified ASTM D6433 pavement raters, and 15 trained and experienced field technicians. Together, we complete over 100 pavement and asset management projects annually. We stand second to none in our ability to establish cost-effective pavement management programs for large and small agencies alike, and our team has earned a reputation for excellence over the course of thousands of projects for municipal clients across the United States. Our multi-disciplinary team, led by pavement engineers, has the experience and expertise to assist our clients with full-service pavement and asset management services, software needs assessments, and custom implementations.

Key personnel identified for the project will be assigned to the City for the duration of the project. Our team is accustomed to working on multiple projects at a time, and we adjust resources on a routine basis to ensure that we have the staff and equipment required to meet project milestones.

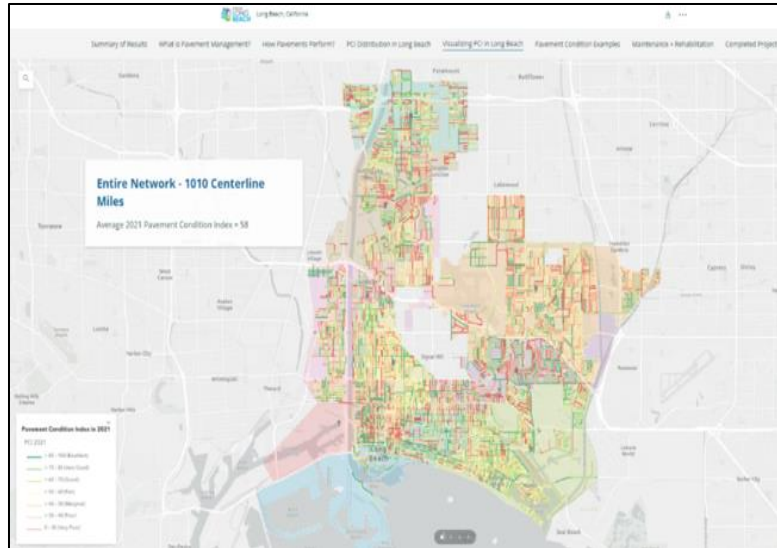
Proposed Project Schedule

This is a representation of our proposed schedule for the 2023 City of Tukwila project, which reflects our improved project workflow. The field surveys are expected to progress at 35 miles per day, and account for an estimated 1 week of testing.

Proposed 8-Month Schedule		
Assumes a NTP is issued June 3rd, 2024 – <i>Data Collection is Weather Dependent</i>		
Task	Description	Estimated Milestone
1	Executed Agreement/NTP	If by early June 2024
2	GIS Acquisition and Validation	June 2024
3	Kick-off with Review Map Iterations and Approval	June 2024
4	RST LCMS-2 Pavement Surveys (180 Test-Miles)	July-Aug., 2024
5	QC/QA for Data Collected	Aug.-September 2024
6	Deliver Pavement Condition Data/Client Review Spreadsheet	October 2024
7	Draft 5-Year “ESA” Analyses & Iterations	Oct.-November 2024
8	Final Analyses, Reporting, and GIS Mapping	December 2024
9	<i>Optional Lucty-centric Analysis, configuration, data load</i>	<i>by January 2025</i>
10	<i>Opt. Images, ROW Assets, Story Map, Council Presentation</i>	<i>by January 2025</i>

Optional: Esri Story Map

IMS is an Esri Authorized Business Partner and an early adopter of Esri technologies. The partnership between IMS and Esri makes unparalleled industry and subject matter expertise available to our clients. Our team of GIS experts are focused on building easy-to-use and easy-to-maintain web-based, geocentric story maps and dashboards to serve not only our clients, but also their constituents. These tools provide a dynamic way to present complicated information visually. Many agencies are already using Esri software and ArcGIS Online, and we look for ways to leverage that existing licensing, subscriptions, and infrastructure to elevate the data we are delivering. We have built story maps for clients to help explain to citizens how a pavement survey works, how the analysis is performed, and how the maintenance and rehabilitation budgets are distributed to maximize the use of scarce funding. In addition to the story maps, we have also deployed agency-focused dashboards to enable managers to easily review the planned work, existing and forecasted conditions, and funding impacts on a map.



IMS interactive Esri GIS story map: City of Long Beach, CA

Project Highlight: Long Beach, CA

Link to live story map: <https://bit.ly/3NQG1AT>

IMS is working with the City of Long Beach, CA to web-enable their pavement management plan to engage citizens in the pavement management process. To facilitate this activity, IMS has authored and deployed an Esri Story Map that shares complex engineering information in an easy to understand public-facing framework. A second, password protected configuration as a dashboard exists that allows City engineers to access additional information and data.

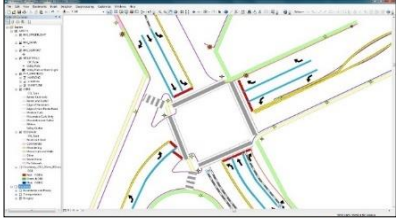




Deliverables

The following products can be delivered to the City:

- Report summarizing the findings of the pavement condition survey
- Client Review Spreadsheet (CRS) with inventory, charts, and graphs
- Esri geodatabase containing updated pavement information including distress information
- Signs geodatabase and multiple views of imagery along with a viewing tool.

Additional Value-Added Services

On the following page, the table presents additional services that the IMS Team can provide for this project. We have performed these services for agencies in Arizona and across the United States to assist agencies in better managing their pavement, sidewalk, and asset inventories.

Technology	Value Added	Photo
<p>Right of Way Asset Collection</p>	<p>Imagery collected during the RST survey can be used to build ROW asset inventories and condition assessments for signs, signposts, curb and gutter, sidewalks, ramps, striping, and many other assets. A subconsultant will be added to the team if this is selected.</p>	
<p>Bannered Imagery</p>	<p>HD ROW imagery collected at the same time as the pavement surveys is processed and cut into 15-foot intervals, then formatted and bannered with relevant header data and the City's branding. Images are linked to the City's GIS centerline and provided as a geodatabase with image hyperlinks.</p>	
<p>Fast Falling Weight Deflectometer (FastFWD)</p>	<p>Deployed for measuring pavement structural capacity and pavement layer stiffness values. This information is combined with pavement distress data to better predict future performance and fine-tune rehab activities. This is frequently used to determine when overlays are no longer effective, and reconstruction is needed.</p>	
<p>Sidewalk Surface Tester (SST)</p>	<p>Deployed for capturing sidewalk inventory and condition data, SSTs may also be deployed to collect data for narrow alleys, parking lots, bike paths, and multi-use trails. SST surveys provide agencies with comprehensive sidewalk condition data that may be used in combination with Lidar sidewalk ramp data to develop detailed ADA transition plans.</p>	
<p>Mobile LiDAR for Sidewalk Ramp Assessments</p>	<p>Deployed to supplement right-of-way inventory surveys by creating a three-dimensional point cloud from which measurements can be extracted. The integrated Ladybug 5+ camera captures high-resolution spherical imagery at defined intervals.</p>	

Fee Proposal

The detailed budget presented on the next page is based on the IMS work plan and deliverables. It represents a realistic budget to complete the work, and we are confident we can maintain an on-time, on-budget assignment.

Test-Mileage Calculation:

IMS is proposing to survey all City-maintained major roads in both directions and all locals in one direction to ensure a sufficient representative sample. Please review our assumptions below and the optional services on the following page:

Tukwila, WA: IMS 2024 Base Scope of Services
Pavement Management Assessment, Analysis, and Report

Task	Activity	Quant	Units	Unit Rate	Total
Project Initiation					
1	Project Initiation & Set-up	1	LS	\$2,500.00	\$2,500.00
2	Network Referencing & GIS Linkage	180	T-Mi	\$20.00	\$3,600.00
3	Network Inventory Checks & Survey Map Development	180	T-Mi	\$10.00	\$1,800.00
Field Surveys					
4	LCMS-2 RST Mobilization/Calibration	1	LS	\$3,600.00	\$3,600.00
5	LCMS-2 RST Field Pavement Data Collection (2-pass All roads)	180	T-Mi	\$130.00	\$23,400.00
Data Management					
6	Data QA/QC, Processing, & Formatting	180	T-Mi	\$35.00	\$6,300.00
7	Annual Fee: Downward Images in Inform Continuous Intervals (Web Based; No Crack Display)				1st Year is Included in Base Activities
	a. Data Fee for Hosting				1st Year is Included in Base Activities
8	Easy Street Analysis of Pavement & 5-Year Budget Development	1	LS	\$5,500.00	\$5,500.00
	a. "ESA - Easy Street Analysis" Pavement Management Spreadsheet Software				Included in Base Activities
	b. Customizable Prioritization & Cost-Benefit Analysis				Included in Base Activities
	c. Unlimited Access - Training Library				Included in Base Activities
	d. Online ESA Spreadsheet Training via Teams				Included in Base Activities
9	Standard IMS Draft Written Report	1	LS	\$2,000.00	\$2,000.00
	a. Standard IMS Final Written Report	1	LS	\$500.00	\$500.00
10	Project Management	1	LS	\$3,690.00	\$3,690.00
Project Total:					\$52,890.00

Assumptions

1. Test miles are calculated based on the number of centerline miles and they will require two pass collection. We have assumed 2 passes all paved roads.
2. Prior to kickoff meeting, agency will provide IMS with:
 1. Primary POC, secondary POC and other stakeholder contact information.
 2. Preliminary centerline GIS (i.e., geodatabase).
3. Data collection relies heavily on up to date and topologically sound GIS centerline information.
4. Pavement data collection is dependent on the agency's approval of the GIS maps representing the street inventory to be surveyed.
5. Pavement data collection is weather dependent and assumes one mobilization to the area. Data cannot be collected if the pavement is wet or if the temperatures are below 32 F or above 95 F.
6. Agency will actively participate in submission review and provide comments within a period of time that the agency and IMS will agree to during the kickoff meeting. The current proposed schedule assumes a two-week review period for draft deliverable submissions.

Tukwila, WA: IMS 2024 Value-Added Services
Pavement Management Assessment, Analysis, and Report

Optional Service Activities:

11	Set-Up Lucity Operating Parameters for Pavement Management	1	LS	\$4,750.00	\$4,750.00	
	a. Pavement Data Load - Lucity	1	LS	\$4,975.00	<u>\$4,975.00</u>	
				Lucity Load Total	\$9,725.00	
12	Annual Fee: Downward Images in Inform Continuous Intervals	Year 2+	1	LS/YR	\$2,000.00	\$2,000.00
	a. Data Fee for Hosting (Web Based; No Crack Display)	Year 2+	180	T-Mi/YR	\$2.00	\$360.00
				Annual Image Hosting Total	\$2,360.00	
13	FastFWD Mobilization/Calibration	1	LS	\$2,925.00	\$2,925.00	
	a. Deflection Testing: 2-pass Test All Roads	84	T-Mi.	\$150.00	\$12,600.00	
	c. Data Analysis of Deflection Testing	1	LS	\$1,250.00	\$1,250.00	
	d. Traffic Control/Deflection Testing (County to provide; IMS Est. ___ Hrs)	0	HR	\$110.00	<u>\$0.00</u>	
				FWD Total	\$16,775.00	
14	Right of Way Asset Data Collection (GPS w/2-pass of Majors: Select Once w/Any Asset B	180	T-Mi	\$4.60	\$828.00	
	a. Sign & Support Database Development	180	T-Mi	\$75.00	\$13,500.00	
	b. Pavement Markings & Striping Database Development	180	T-Mi	\$22.00	\$3,960.00	
	c. Sidewalk Database Development	180	T-Mi	\$30.00	\$5,400.00	
	d. Curb Ramp Database Development	180	T-Mi	\$43.40	\$7,812.00	
	e. Curb & Gutter Database Development	180	T-Mi	\$22.00	\$3,960.00	
	f. Traffic Signals/ Flashers. Controllers Database Development	180	T-Mi	\$25.00	\$4,500.00	
	g. Street Lights Database Development	180	T-Mi	\$45.00	\$8,100.00	
	h. Drop Inlets Database Development	180	T-Mi	\$22.00	\$3,960.00	
	i. Drivepads Database Development	180	T-Mi	\$22.00	\$3,960.00	
	j. Bridges Database Development	180	T-Mi	\$25.00	\$4,500.00	
	k. Street Furniture Database Development	180	T-Mi	\$25.00	\$4,500.00	
	l. Cattle Guards Database Development	180	T-Mi	\$22.00	\$3,960.00	
	m. Speed Humps Database Development	180	T-Mi	\$25.00	\$4,500.00	
	n. Guardrails & Roadside Pedestrian Fence Database Development	180	T-Mi	\$22.00	\$3,960.00	
	o. Catch Basins/ Drainage Inlets Database Development	180	T-Mi	\$22.00	\$3,960.00	
	p. Shoulders Database Development	180	T-Mi	\$22.00	\$3,960.00	
	q. Cabinets Database Development	180	T-Mi	\$22.00	\$3,960.00	
	r. Utility Poles Database Development	180	T-Mi	\$45.00	\$8,100.00	
	s. Fire Hydrants Database Development	180	T-Mi	\$22.00	\$3,960.00	
	t. Medians Database Development	180	T-Mi	\$22.00	\$3,960.00	
	u. Valves Database Development	180	T-Mi	\$32.00	\$5,760.00	
	v. Manhole Covers Database Development	180	T-Mi	\$25.00	\$4,500.00	
	w. Trees Database Development	180	T-Mi	\$55.00	\$9,900.00	
15	IMS Web-Story Map of City's Pavement Condition (for External Portal)	1	EA	\$7,500.00	\$7,500.00	
	a. Years 2 & 3 Annual Updates of Rehabs; Update	3	EA	\$2,000.00	\$6,000.00	
16	IMS Web-Dashboard of City's Pavement Condition (for Internal Staff)	1	EA	\$5,500.00	\$5,500.00	
	a. Years 2 & 3 Annual Updates of Rehabs; Update	3	EA	\$2,000.00	\$6,000.00	
17	City Council Presentation - Virtual	1	EA	\$3,500.00	\$3,500.00	
	a. Add for an Onsite City Council Presentation	1	EA	\$2,000.00	\$2,000.00	
18	Non-Standard Written Report (Min. 8-Hours; beyond at Hourly Rate)	8	HR	\$150.00	\$1,200.00	
19	Additional or Specialty Maps for Reporting (Beyond Typical 2 Sets)	1	EA	\$175.00	\$175.00	
20	Additional Hard Copies of the Final Report (->3 Sets Included)	1	EA	\$200.00	\$200.00	
21	Functional Class Review	16	HR	\$175.00	\$2,800.00	
22	Sidewalk-Surface Tester (SST) Mob., Survey & Analysis: Sidewalks			(Available Upon Request)		
23	Lidar-Mounted Unit Mob., Survey & ADA Compliance Data: ADA Curb Ramps			(Available Upon Request)		
24	Software Evaluation Needs Assessment	1	LS	\$1,750.00	\$1,750.00	
25	Convert Street Layer Polylines to Polygons	180	T-Mi	\$6.00	\$1,080.00	
26	Convert Street Layer Polygons to Polylines	180	T-Mi	\$20.00	\$3,600.00	

Thank you for your continued interest in working with the IMS team. We value developing and maintaining long-term partnerships with our clients. We will strive to become an asset and extension of the City of Tukwila staff and team. If any questions arise, please do not hesitate to contact me at (480) 462-4030 or jtourek@imsanalysis.com.

Best regards,

IMS Infrastructure Management Services, LP

Jim Tourek, Client Services Manager