

Agenda Item No: CA-d

Meeting Date: February 13, 2023

Subject: Approval of Resolution 23-09, approving an Agreement in an amount not to exceed \$60,000, to Roadway Asset Services, LLC. (RAS) for engineering services related to pavement condition assessment & program development, including sign, sidewalk & ADA ramp inventory. This data will be imported into Dacono's asset management software, Cartegraph, to allow Public Works to prioritize maintenance activity & forecast budgetary needs.

Background: The City of Dacono recently purchased an asset management software to allow for more efficient and cost effective operations within the Public Works department. Pavement condition is an important parameter that, when incorporated into the software database, allows the programming to forecast budget needs and schedule maintenance activity.

RAS is able to collect the data and import it into Cartegraph.

RAS also has experience building the models within Cartegraph and will train staff to complete this task.

The data collected by RAS will allow Public Works to leverage Cartegraph to it's full potential. Utilization of Cartegraph at 100% will allow Public Works to better serve the community.

RAS, along with several other industry professionals, were evaluated based on technical qualifications, product deliverables, support and pricing. RAS was selected for this project due to their preferred qualifications and in accordance with the City's purchasing guidelines.

Recommended Action: Staff is recommending approval of Resolution 23-09.

RESOLUTION NO. 23-09

A RESOLUTION APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH ROADWAY ASSET SERVICES, LLC. FOR PAVEMENT CONDITION ASSESSMENT & PROGRAM DEVELOPMENT

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DACONO, COLORADO:

Section 1. The Professional Services Agreement by and between the City of Dacono and Roadway Asset Services, LLC. is hereby approved in essentially the same form as the copy of such Agreement accompanying this resolution.

Section 2. The Mayor is hereby authorized to execute the Agreement. The City Council further authorizes the Mayor to negotiate and approve on behalf of the City such revisions to the Agreement as the Mayor and City Attorney's Office determines are necessary or desirable for the protection of the City, so long as the essential terms and conditions of the Agreement are not altered.

INTRODUCED, READ, and ADOPTED this 13th day of February, 2023.

CITY OF DACONO, COLORADO

Adam Morehead, Mayor

ATTEST:

Valerie Taylor, City Clerk

**AN AGREEMENT BY AND BETWEEN THE CITY OF DACONO,
AND ROADWAY ASSET SERVICES, LLC.
FOR PAVEMENT CONDITION ASSESSMENT &
PROGRAM DEVELOPMENT SERVICES**

1.0 PARTIES

The parties to this Agreement are the City of Dacono, a Colorado home rule municipal corporation, hereinafter referred to as the “City,” and Roadway Asset Services, LLC, hereinafter referred to as the “Consultant.”

2.0 RECITALS AND PURPOSE

- 2.1 The City desires to engage the Consultant for the purpose of providing PAVEMENT CONDITION ANALYSIS services related to ROAD MAINTENANCE.
- 2.2 The Consultant represents that it has the background, experience, equipment and facilities necessary to provide the City with the services.

3.0 SCOPE OF SERVICES

The Consultant agrees to provide the City with the specific professional services as set forth in Exhibit “A” attached hereto and incorporated herein by reference.

4.0 COMPENSATION

- 4.1 The City shall pay the Consultant for services under this agreement the amounts set forth in Exhibit “B” attached hereto and incorporated herein by this reference. Such amounts shall be inclusive of all costs of whatsoever nature associated with the Consultant’s efforts, including but not limited to salaries, benefits, expenses, overhead, administration, profits, and outside consultant fees. No hourly rates or other charges shall exceed those identified in Exhibit “B,” except as may be authorized by the City in advance. The scope of services and payment therefor shall only be changed by a properly authorized amendment to this Agreement. No City employee has the authority to bind the City with regard to any payment for any services which exceeds the amount payable under the terms of this Agreement.

4.2 The Consultant shall submit monthly a detailed invoice to the City describing the professional services rendered. The invoice shall document the hours spent on the project identifying by work category and subcategory the work performed for the month, the hours worked by employee, and the hourly rate charged for that work. The City shall have access to backup payroll documentation identifying individual employee, date, and hours worked. The City shall pay the invoice within thirty (30) days of receipt unless the work or the documentation therefor are unsatisfactory. Payments made after thirty (30) days may be assessed an interest charge of one percent (1%) per month unless the delay in payment resulted from unsatisfactory work or documentation therefor.

5.0 PROJECT REPRESENTATION

5.1 The City designates **BOBBY REDD**, as the responsible City staff member(s) to provide direction to the Consultant during the conduct of the project. The Consultant shall comply with the directions given by the designated staff members.

5.2 The Consultant designates _____ as its project manager. The City may rely upon the guidance, opinions, and recommendations provided by the Consultant and its representatives. Should any of the representatives be replaced, particularly _____, and such replacement require the City or the Consultant to undertake additional reevaluations, coordination, orientations, etc., the Consultant shall be fully responsible for all such additional costs and services.

6.0 TERM

The Consultant’s services under this Agreement shall commence on ***February 13, 2023*** and be valid for ***one (1) year***.

7.0 INSURANCE

7.1 The Consultant agrees to procure and maintain, at its own cost, the following policy or policies of insurance. The Consultant shall not be relieved of any liability, claims, demands, or other obligations assumed pursuant to the Contract Documents by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

7.1.1 Consultant shall procure and maintain, and shall cause each Sub-consultant of the Consultant to procure and maintain or insure the activity of Consultant’s Sub-consultants in Consultant's own policy, the minimum insurance coverages listed below. Such coverages shall be procured and maintained with forms and insurers acceptable to the City. All coverages shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

- 7.1.1.1 Workers' Compensation insurance to cover obligations imposed by the Workers' Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employers' Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease - policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease - each employee.
- 7.1.1.2 Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, independent Consultants, products, and completed operations. The policy shall contain a severability of interests provision.
- 7.1.1.3 Comprehensive Automobile Liability insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate with respect to each of Consultant's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.
- 7.1.1.4 Professional Liability insurance with minimum limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000)
- 7.1.2 The policies required above, except for the Workers' Compensation insurance, Employers' Liability insurance, and Professional Liability insurance, shall be endorsed to include the City, and its officers and employees, as additional insureds. Every policy required above shall be primary insurance, and any insurance carried by the City, its officers, or its employees, shall be excess and not contributory insurance to that provided by Consultant. The additional insured endorsement for the Comprehensive General Liability insurance required above shall not contain any exclusion for bodily injury or property damage arising from completed operations. The Consultant shall be solely responsible for any deductible losses under each of the policies required above.
- 7.1.3 Certificates of insurance shall be completed by the Consultant's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be subject to review and approval by the

City. Each certificate shall identify the Project and shall provide that the coverages afforded under the policies shall not be cancelled, terminated or materially changed until at least 30 days prior written notice has been given to the City. If the words “endeavor to” appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate. The City reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

- 7.1.4 Failure on the part of the Consultant to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material breach of contract upon which the City may immediately terminate the contract, or at its discretion may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith, and all monies so paid by the City shall be repaid by Consultant to the City upon demand, or the City may offset the cost of the premiums against any monies due to Consultant from the Owner.
- 7.1.5 The parties hereto understand and agree that the City is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$350,000 per person and \$990,000 per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, ' 24-10-101 et seq., 10 C.R.S., as from time to time amended, or otherwise available to the City, its officers, or its employees.

8.0 INDEMNIFICATION

To the fullest extent permitted by law, the Consultant agrees to indemnify and hold harmless the City, and its officers and its employees, from and against all liability, claims, and demands, on account of any injury, loss, or damage, which arise out of or are connected with the services hereunder, if such injury, loss, or damage, or any portion thereof, is caused by, or claimed to be caused by, the negligent act, omission, or other fault of the Consultant or any sub-consultant of the Consultant, or any officer, employee, or agent of the Consultant or any sub-consultant, or any other person for whom Consultant is responsible. The Consultant shall, at its sole expense, timely investigate and respond to the City regarding any such liability, claims and demands. To the extent and for an amount represented by the degree or percentage of negligence or fault attributable to the Consultant or the Consultant’s agents, representatives, sub-consultants, or suppliers, Consultant shall be solely responsible to bear all costs and expenses, including court costs and attorney fees, for any such injury, loss, or damage, or portion thereof, caused by or claimed to be caused by Consultant’s negligent acts, errors, or omissions relating to the professional work or services in the performance of this Agreement. The Consultant's indemnification and defense obligations shall not be construed to extend to any injury, loss, or damage which is caused by the act, omission, or other fault of the City or any other party that is not a sub-consultant or other person for whom Consultant is responsible. The extent of the Consultant’s obligation to defend, indemnify, or hold harmless the City shall be determined only after the Consultant’s liability or fault has been determined by adjudication, alternative dispute resolution, or otherwise resolved by mutual agreement between the

City and the Consultant; however, the Consultant's duty to investigate and respond to the City regarding any claims or demands shall immediately arise upon the receipt by the City or Consultant of any claims or demands.

9.0 QUALITY OF WORK

Consultant's professional services shall be in accordance with the prevailing standard of practice normally exercised in the performance of professional services of a similar nature in the Denver metropolitan area.

10.0 INDEPENDENT CONTRACTOR

Consultant and any persons employed by Consultant for the performance of work hereunder shall be independent Consultants and not agents of the City. Any provisions in this Agreement that may appear to give the City the right to direct Consultant as to details of doing work or to exercise a measure of control over the work mean that Consultant shall follow the direction of the City as to end results of the work only. **As an independent contractor, Consultant is not entitled to workers' compensation benefits except as may be provided by the independent contractor nor to unemployment insurance benefits unless unemployment compensation coverage is provided by the independent contractor or some other entity. The Consultant is obligated to pay all federal and state income tax on any moneys earned or paid pursuant to this contract.**

11.0 ASSIGNMENT

Consultant shall not assign or delegate this Agreement or any portion thereof, or any monies due to or become due hereunder without the City's prior written consent.

12.0 DEFAULT

Each and every term and condition hereof shall be deemed to be a material element of this Agreement. In the event either party should fail or refuse to perform according to the terms of this Agreement, such party may be declared in default.

13.0 TERMINATION

13.1 This Agreement may be terminated by either party for material breach or default of this Agreement by the other party not caused by any action or omission of the other party by giving the other party written notice at least thirty (30) days in advance of the termination date. Termination pursuant to this subsection shall not prevent either party from exercising any other legal remedies which may be available to it.

13.2 In addition to the foregoing, this Agreement may be terminated by the City for its convenience and without cause of any nature by giving written notice at least seven (7) days in advance of the termination date. In the event of such termination, the Consultant will be paid for the reasonable value of the services rendered to the date of termination, not to exceed the total amount set forth in Exhibit B, and upon such payment, all obligations of the City to the Consultant under this Agreement will cease. Termination pursuant to this Subsection shall not prevent either party from exercising any other legal remedies which may be available to it.

14.0 INSPECTION

The City and its duly authorized representatives shall have access to any books, documents, papers, and records of the Consultant that are related to this Agreement for the purpose of making audits, examinations, excerpts, and transcriptions.

15.0 ENFORCEMENT

15.1 In the event that suit is brought upon this Agreement to enforce its terms, the prevailing party shall be entitled to its reasonable attorneys' fees and related court costs.

15.2 Colorado law shall apply to the construction and enforcement of this Agreement. The parties agree to the jurisdiction and venue of the courts of Weld County in connection with any dispute arising out of or in any matter connected with this Agreement.

16.0 COMPLIANCE WITH LAWS

Consultant shall be solely responsible for compliance with all applicable federal, state, and local laws, including the ordinances, resolutions, rules, and regulations of the City; for payment of all applicable taxes; and obtaining and keeping in force all applicable permits and approvals.

17.0 INTEGRATION AND AMENDMENT

This Agreement represents the entire Agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties.

18.0 EQUAL OPPORTUNITY EMPLOYER

18.1 Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, age, sex, disability or national origin. Consultant will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, age, sex, disability, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training,

including apprenticeship. Consultant agrees to post in conspicuous places, available to employees and applicants for employment, notice to be provided by an agency of the federal government, setting forth the provisions of the Equal Opportunity Laws.

- 18.2 Consultant shall be in compliance with the applicable provisions of the American with Disabilities Act of 1990 as enacted and from time to time amended and any other applicable federal, state, or local laws and regulations. A signed, written certificate stating compliance with the Americans with Disabilities Act may be requested at any time during the life of this Agreement or any renewal thereof.

19.0 PROHIBITION AGAINST EMPLOYING ILLEGAL ALIENS

- 19.1 Consultant shall not knowingly employ or contract with an illegal alien to perform work under this contract. Consultant shall not enter into a contract with a sub-consultant that fails to certify to the Consultant that the sub-consultant shall not knowingly employ or contract with an illegal alien to perform work under this contract.
- 19.2 Consultant will participate in either the E-verify program or the Department program, as defined in C.R.S. §§ 8-17.5-101(3.3) and 8-17.5-101(3.7), respectively, in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the public contract for services. Consultant is prohibited from using the E-verify program or the Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed.
- 19.3 If Consultant obtains actual knowledge that a sub-consultant performing work under this contract for services knowingly employs or contracts with an illegal alien, Consultant shall:
- a. Notify the sub-consultant and the City within three days that the Consultant has actual knowledge that the sub-consultant is employing or contracting with an illegal alien; and
 - b. Terminate the subcontract with the sub-consultant if within three days of receiving the notice required pursuant to this paragraph the sub-consultant does not stop employing or contracting with the illegal alien; except that the Consultant shall not terminate the contract with the sub-consultant if during such three days the sub-consultant provides information to establish that the sub-consultant has not knowingly employed or contracted with an illegal alien.
- 19.4 Consultant shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
- 19.5 If Consultant violates a provision of this Contract required pursuant to C.R.S. § 8-17.5-102, City may terminate the contract for breach of contract. If the contract is so terminated, the Consultant shall be liable for actual and consequential damages to the City.

DATED: _____, 20__

CITY OF DACONO,

By: _____
Mayor

Attest: _____
City Clerk

CONSULTANT:

By: _____

Name: _____

Title: _____

WITNESS:

By: _____

Name: _____

Title: _____

Exhibit “A”

Exhibit “B”

[Scope of Services & Fee Schedule]
(combined)

February 7th, 2023

Public Works
City of Dacono
512 Cherry Avenue
Dacono, CO 80514

Attention: Bobby Redd, PE, Public Works Director

Reference: RAS Pavement & Asset Management Services Quotation

Dear Mr. Redd,

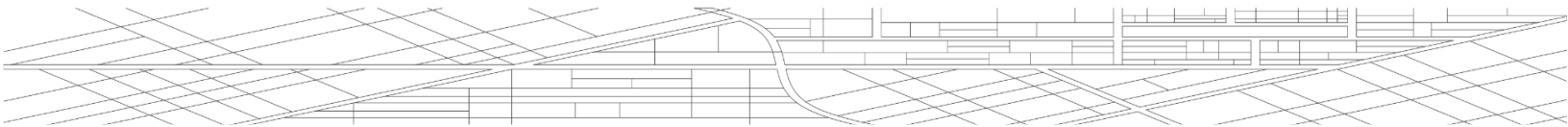
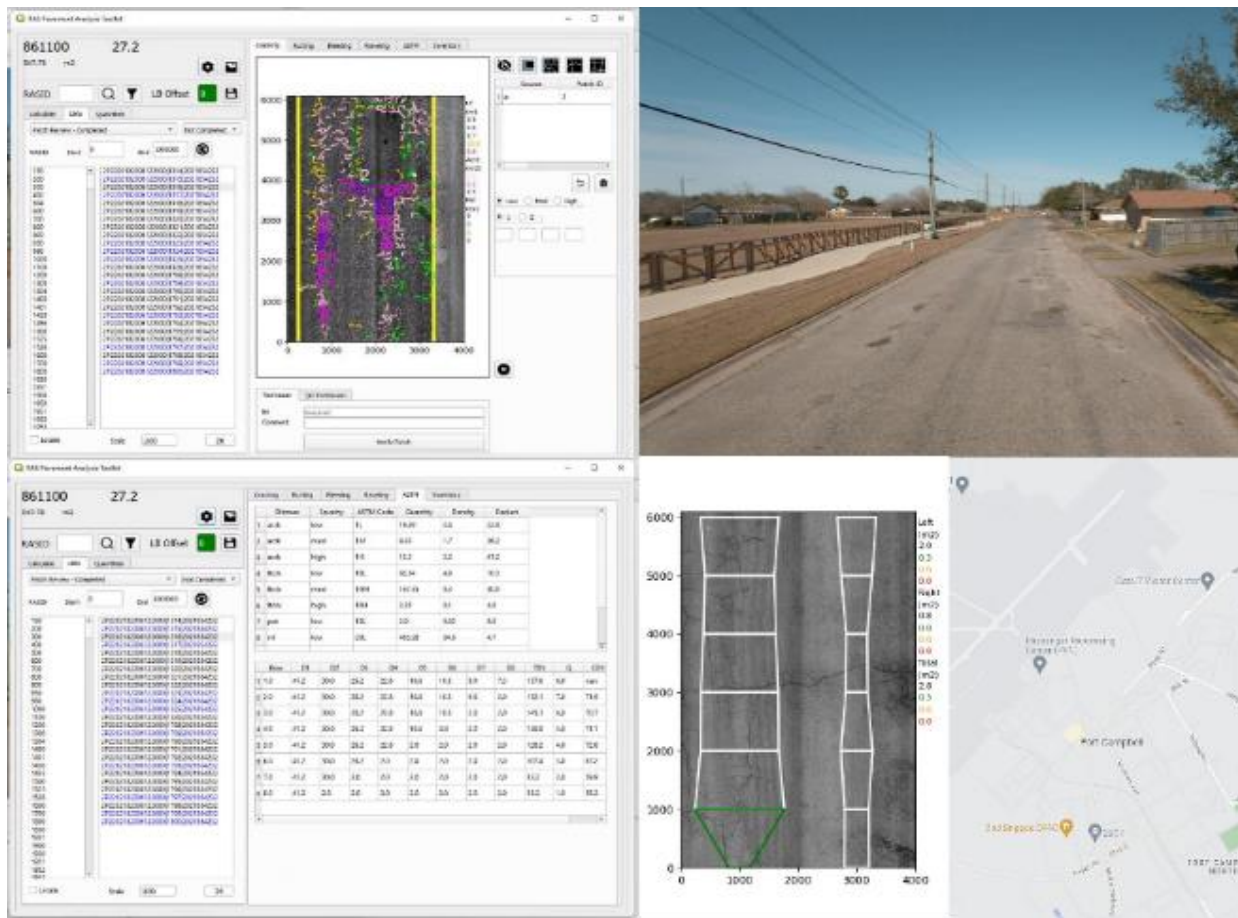
I appreciate you taking the time to meet with Roadway Asset Services, LLC (RAS) via a Microsoft Teams meeting to discuss your potential pavement and asset management needs. RAS is a full-service pavement and asset management consultant that collects pavement performance data using laser based automated technologies and analyzes the data using sound financial optimization modeling. In addition, our services include the configuration of many available 3rd party pavement management programs such as Cartograph, Streetlogix, Brightly, DOT, Agile Assets, Vviewworks, Lucity, and many others. **In the last 5 years, RAS executive team members have managed over 100,000 miles of pavement condition and asset inventory data.**

RAS has invested in the most sophisticated fleet of roadway asset collection (RAC) vehicles and pavement analysis tools for automated data collection that provides a **100% linear assessment of the roads driven.** This methodology removes the subjectivity of rating small sample areas of the road segment. Unlike many of our competitors, **RAS utilizes a ROW capture system to provide an immersive 360 view versus stationary independent camera views.**



Furthermore, RAS' RAC vehicles have **received independent inertial profiler certification for accuracy and repeatability from the National Center for Asphalt Technology at Auburn University.** **RAS has a fleet of 4 RAC vehicles** to ensure the City that we have the staff and resources to complete this assignment in a timely manner. In addition to our fleet, our strategic partnership with our equipment manufacturer allows us to mobilize **additional identical RAC vehicles** should capacity need to be expanded upon due to weather or unforeseen mechanical delays.

After data is collected in the field and uploaded to the office environment, it is imported using the RAS AI pavement rating tool **Road TRIP™ (Technical Rating Intelligence Program)**. The import process creates mappings to the data so that users do not need to keep track of where the data is stored on central data server(s). At this stage, the major data processing tasks also occur, such as generation of right-of-way and pavement image streams; calculation of profile, roughness, rutting, detection of cracks, lane-markings, man-made objects, and other distresses. The detected cracks are overlaid on the pavement images and offset to assist with the verification of the detected cracks. During reporting, the distress cracks are defined by road zone and accumulated according to the units defined in the client specification. The severity levels are identified based upon the defined limits (ASTM D6433) and verified for resolution through visual quality control checks of image files. Where density metrics are required, these are determined using the length of the interval being reported and the width of road zones included.

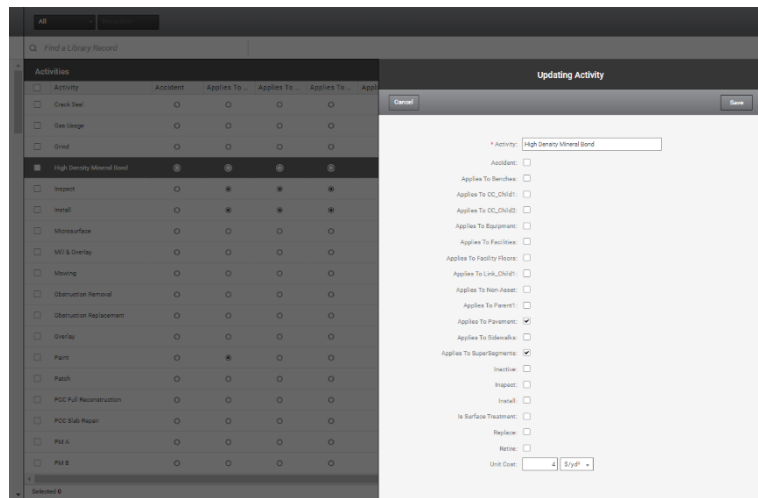


Cartegraph OMS Configuration Workflow

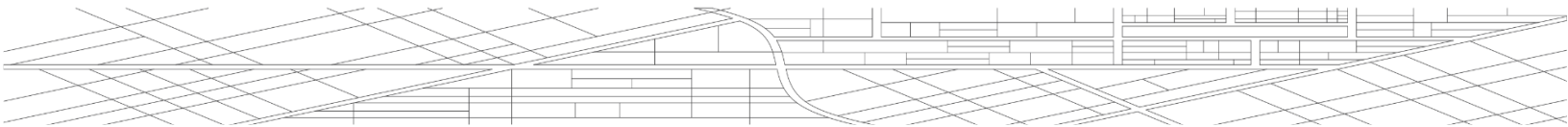
While running the models themselves might seem straight-forward, the RAS approach to such an analysis involves the following sequences and client engagements during the process:

- **Current database review** – most issues can be resolved at the initiation of a project by completing a brief review of the City’s existing GIS and Cartegraph OMS setup. All RAS projects begin with a review by our Project Manager. Any recommended changes to the segmentation or budgetary model configuration will be discussed during this stage. The benefit of the RAS team in this stage is in their intimate knowledge of Cartegraph OMS configuration, including areas of recommended improvement.
- **Maintenance & Rehabilitation Setup** – to ensure the results of the budget model runs meet the City’s expectations, Scot Gordon will discuss the City’s current Maintenance and Rehabilitation setup within the Cartegraph OMS system. As a Professional Engineer with extensive pavement experience, Scot is well versed with the application of pavement rehabilitation techniques, trigger points, real-world impact to OCI, and life cycles. As a part of this process, RAS will work with the City to determine the right treatment (prescription) at the right time. As completed with many agencies across the Country, RAS will work with City staff to review the existing pavement rehabilitation model parameters that are currently setup within the Cartegraph OMS “Scenario Builder”. These parameters will be updated based on actual City expenditures for each activity and real-world life cycle estimates that relate to PCI impact. This includes reviewing Min/Max PCI, Breakpoint PCI, decision trees for treatments, costs, and reset PCI values.

RAS can also discuss other treatments that the City may or may not be using, their benefits, their return on investment, and their adoption across the Country. The results of the scenarios would include investment benefit information indicating the cost per square foot of benefit for each maintenance strategy based on maintenance rehabilitation costs. This can be reported in a number of ways, but most commonly as the cost per square foot to increase the PCI by increments of 1 point.

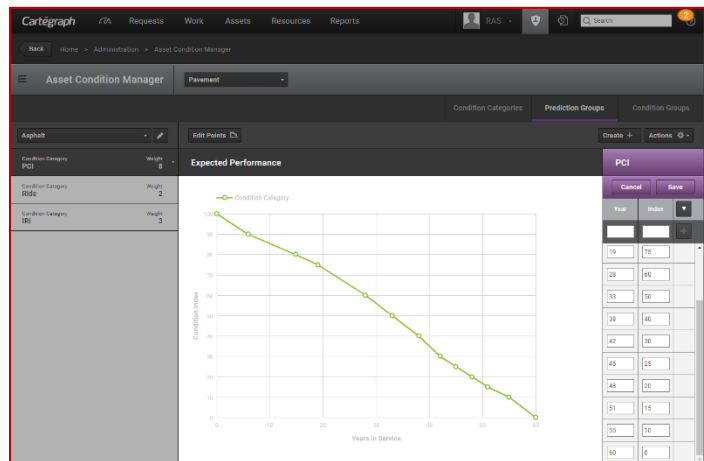


- **Deterioration Curves** – forecasting pavement conditions within Cartegraph requires a detailed set of pavement deterioration curves for each roadway traffic classification, pavement material type, etc. as designated by the pavement management system. Scot will review the existing deterioration curves to ensure they still reflect realistic degradation rates in the City. If alterations to the curves are necessary, Scot will lead the update with the team prior to the production data



load into Cartegraph. Scenario Builder will pull data from your Cartegraph performance curves, activities, impacts, and more to create clear, accurate predictions on everything from OCI gains to budget impact. Scot Gordon and the RAS team have developed hundreds of deterioration curves based on collected data. Scot will work with the historical data from Dacono, along with the collected data from this project, to develop updated and further refined deterioration curves for each combination of street classification and pavement surface type, representative of the Dacono climate.

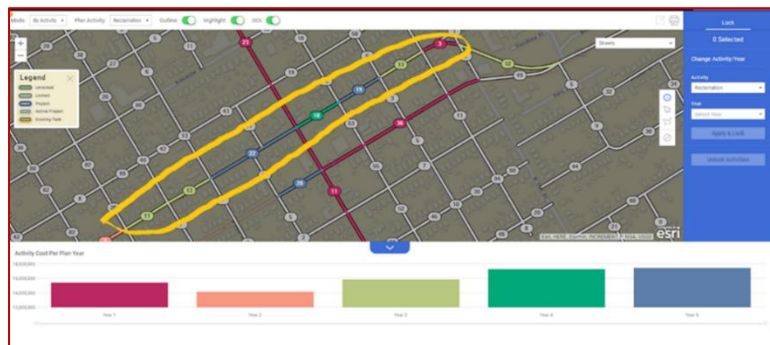
RAS has protocols in place that preserves historical collection data and utilizes past surveys to assist in modeling through documenting the change in conditions between past surveys and the current collected data. RAS will make the comparisons between the surveys easily viewable for City staff to determine if outliers exist. An example of data integration between collection cycles comes



from Scot and the RAS Team’s work with the City of San Antonio Cartegraph OMS data. Scot provided the City a method to determine the age of each pavement section and refine the deterioration curves by evaluating the decrease in PCI per year from historical pavement evaluation data. The delta decrease, or difference in PCI value per year, along with the range of PCI value of the roadway provided guides to shape the deterioration curve at each age.

- Supersegment Development** – the Cartegraph Scenario Builder module runs models on the layers loaded into the system. While older versions of Cartegraph could only house a single layer, Cartegraph now gives users the ability to house a Supersegment layer, which is simply multiple segments stitched together to form a logical project or management section. The benefit of utilizing a Supersegment layer for use in Scenario Builder is that it runs the budgetary scenario and the project level, producing real-world rehabilitation plans that are ready for City review, modification, or acceptance.

Our team will also provide recommendations to City staff for best practices in developing practically sized Supersegments to yield model results that can be acted upon. A Microsoft Access database of final configuration, setup, model, etc. will be provided to the City.



Below you will find a summary of the budget associated with the services discussed during our meeting. In addition to the pavement management analysis services listed below, we have also provided optional costs for supplemental Right of Way Asset Inventories.

City of Dacono, CO Pavement Condition Survey				
Task	Description	Units	Unit Cost	Fee
Required Services				
1	Project Initiation, Virtual Kickoff, & Centerline Identification ¹	1	\$3,000	\$3,000
2	Field Mapping Development & Routing Setup	1	\$1,500	\$1,500
3	Mobilization/Calibration/Virtual Pilot	1	\$2,000	\$2,000
4	RAC Vehicle Pavement Distress Collection (days) ²	2	\$4,000	\$8,000
5	Pavement Evaluation, PCI Processing, & QA/QC (Modified ASTM D6433 using AI)	1	\$5,000	\$5,000
6	Pavement Width (lane miles)	1	\$1,500	\$1,500
7	Cartegraph Data Load (pavement attribute and inspection data)	1	\$3,500	\$3,500
8	Cartegraph Analysis Parameter Setup, Budgetary Modeling, & Configuration	1	\$14,500	\$14,500
9	Draft & Final Pavement Management Report	1	\$8,450	\$8,450
10	Sign Inventory & Assessment (Lane Miles)	66	\$70	\$4,620
11	Sidewalk Inventory & Assessment (Lane Miles)	66	\$60	\$3,960
12	ADA Ramp Inventory & Assessment (Lane Miles)	66	\$60	\$3,960
Total Fee³				\$59,990

¹Assumes centerline file will be provided in GIS.

²All roadways will be driven in two directions

³To be generated using the Cartegraph OMS Scenario Builder software. City to purchase software directly from Cartegraph

⁴Bill monthly, lump sum based on percent complete for each task item.

Optional Services				
Task	Description	Units	Unit Cost	Fee
13	Senior Pavement Engineer Consulting Hours (Hourly)	1	\$150.00	\$150.00
14	Senior GIS Analyst Consulting Hours (Hourly)	1	\$200.00	\$200.00
15	Videologger & Data Viewer (Web Hosted)	1	\$7,500	\$7,500
16	Markings Inventory & Assessment (Lane Miles)	66	\$55	\$3,630
17	Striping Inventory & Assessment (Lane Miles)	66	\$55	\$3,630
18	Curb/Gutter Inventory & Assessment (Lane Miles)	66	\$60	\$3,960
19	Traffic Signal Inventory & Assessment (Lane Miles)	66	\$55	\$3,630

We look forward to building a long-term relationship with the City of Dacono and please do not hesitate to reach out with any questions or comments regarding these services.

Sincerely,



Zac Thomason, MBA
Senior Vice President
Roadway Asset Services, LLC.

