NEWPORT MESA UNIFIED SCHOOL DISTRICT
Pavement Assessment and Management Plan
Request for Proposals (PSA) 61730.00001\33179876.1

August 26, 2021

Cartigraph Technologies, LLC
6131 Orangethorpe Ave. Suite 170
Buena Park, CA 90620
www.cartigraph.com
(800) 340-0128
08/26/2021

Cartigraph Technologies, LLC
6131 Orangethorpe Ave, Suite 170
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www.cartigraph.com
info@precisionmaterial.net

ATTN: JONATHAN GEISZLER
Newport-Mesa Unified School District
2985 Bear St. Bldg. A
Costa Mesa, California

RE: Pavement Assessment and Management Plan

Mr. Geiszler:

We are very excited for the opportunity to demonstrate our state-of-the-art pavement assessment software and consulting services.

For the completion of this project, NMUSD will contract solely with Cartigraph Technologies LLC. Our lump sum pricing includes a partnership with Accessology (sub contractor), a nationwide leader in ADA compliance.

As Orange County residents, we are equally excited to work right in our backyard and provide the Newport-Mesa Unified School District with excellent customer service.

Our leadership team has over 80 years of combined experience and successfully completed inventory and assessment projects for all levels of government, education and Fortune Top 500 companies. We understand the importance of conducting ourselves with the highest levels of expertise and professionalism without disrupting the daily operations of our customers. For this project, all Cartigraph employees will be uniformed and background checked prior to entering any Newport-Mesa facilities.

We look forward to earning your business and demonstrating our best-in-class software. We will go above-and-beyond to ensure the Newport-Mesa Unified School District is 100% satisfied by our service and technology.

Thank you for your consideration,

Jason Johnson - President
Mobile: 626-327-6348
Email: info@cartigraph.com
1. Executive Summary

   a. Company Background:

   At Cartigraph Technologies, our passion is to combine creative problem solving with innovation. We saw a need in the risk management field that was currently using antiquated processes to collect data and knew we could create something that would be far more efficient for pavement assessment and management plans.

   Industry leaders would share with us their frustrations with the laborious surveying process. Findings were being captured without the ability to view information in real time or create timely reports. They needed ways to save time, money to earn more customers.

   We thrive on opportunities that challenge our team to think outside the box. With our expertise in software development and data collection, we worked tirelessly to create the future of pavement data collection. Our team has built an application using smart phone technology that creates a fully automated process.

   Since 2015, Cartigraph has provided technical solutions on federal, state, and local government contracts. We proudly serve the United States Department of Defense, State of California (Department of Water Resources), San Diego County, San Bernardino County, City of Los Angeles, City of Irvine, City of Beverly Hills, Long Beach Transit, OMNITRANS, ExxonMobil, Phillips66, and Valero along with many more satisfied customers.

   Software Capabilities:

   For this project Cartigraph will employ our proprietary web based inventory management software. Our software creates a seamless, intuitive, and effortless experience for our clients. Our obsession with client experience drives our innovation and cutting-edge technology. NMUSD will have 24/7/365 real time access to a client portal to view our work, schedule services, and access reports. Cartigraph eliminates paper forms and segregated spreadsheets!
Cartigraph’s technical division is composed of formally trained strategists, software engineers, and visual and user interface designers. All members of the division are employees. The division’s experts have an average of 10.5 years of professional experience and an average of 2.6 years of tenure at our company. Our Technical Team members are a diverse group of individuals that have different interests, experiences and backgrounds.

While we thrive on challenging projects, problem solving and complex systems, we realize that our software is only as valuable as the end-user’s experience. Therefore, our system is intended to be clean, simple, easy to use and can be learned within minutes no matter what the end-user’s computer experience.

Screenshots: Mobile App used by Surveyors to collect data and sent to cloud

Mobile App Homepage (used by Cartigraph Surveyors). Step One:

- Cartigraph surveyors select pavement type which populates into the database for custom reporting.
Mobile App Survey Page (used by Cartigraph Surveyors). Step Two:

- Cartigraph surveyors select from pre-populated evaluation criteria with sub-categories. Each selection populates an individual column on the database for future reporting and queries.

Mobile App Survey Page (used by Cartigraph Surveyors). Step Three:

For street pavement assessments, the Surveyor will select all applicable signs of distress and take photos during the following steps.
Mobile App Sidewalk Assessment (used by Cartigraph Surveyors).

For sidewalk assessments, the Surveyor will select all applicable signs of distress. Our software also captures running and cross slope for enhanced ADA compliance.

Mobile App Notes and Measurement Page (used by Cartigraph Surveyors).

For all assessments, the Surveyor will add notes, measurements and take photos which are added to the database. Once the save button is pressed, a pin will appear on the desktop map at the GPS location where the assessment was conducted.

Screenshots: Desktop used by NMUSD Staff to View Real Time Results
Private Homepage

- Private URL
- SSL authentication
- Active Directory (ADFS) integration
- Malicious code protection
- Access control policies
- System backups/recovery
- 24/7/365 customer access

Project Map

NMUSD will have 24/7/365 real-time access to a unique client portal to review the data being collected for consistency, accuracy, and transparency of the project throughout its lifecycle. Our software will give you peace of mind that the project is moving forward accurately and on schedule.

Raw Data Page

- Export maps to shapefile
- Export raw data to xls
- Run queries and reports
- View photos
- View GPS markers
1. Personnel

   a. Project Team

   **JASON JOHNSON (PRESIDENT)**
   CONTRACT ADMINISTRATOR

   - Experience: 12 years in Business Leadership
   - Experience: 15 years in software development
   - Experience: 15 years in data collection and database administration
   - Education: Business Administration – Cal Poly Pomona
   - Certifications: Certified Supply Chain Professional, OSHA 10, 30 Certified
   - Volunteer: Biola University Track & Field Coach

   Jason founded Cartigraph Technologies while serving as President of Precision Material Management (PMM), a firm specializing in inventory management and logistics. Prior to founding PMM in 2014, he served as a Procurement Manager for several Fortune 500 companies. Jason has successfully combined 15+ years of business leadership experience with his passion for developing innovative software and technology that enables customers to operate more efficiently. Jason has spearheaded technology projects for the United States Department of Defense, State of California, Department of Transportation and major oil & gas companies.
JOEY TOSTA (VICE PRESIDENT)
PROJECT MANAGER

- Experience: 15 years in Technical Consulting
- Experience: 12 years in Inventory Management and data collection
- Education: Political Science – University of California, Santa Barbara
- Certifications: Project Manager Professional (PMP)
- Volunteer: Biola University Track & Field Coach

A resident of Costa Mesa, Joey co-founded Cartigraph Technologies while serving as Director of Operations for PMM. During his time at PMM, Joey developed a new line of business in ADA Compliance to provide software and services on government contracts, which later became Cartigraph Technologies. Joey has demonstrated Project Management expertise, successfully completing high-profile projects for the United States Department of Defense, County of San Bernardino, City of Irvine, Long Beach Transit, City of Beverly Hills PW and City of Los Angeles. As the Project Manager, Joey successfully managed complex projects with as many as 200 employees.

KRISTI AVALOS (ACCESSOLOGY))
CASp, SUBJECT MATTER EXPERT

- Experience: 40 years in accessibility compliance-related consulting
- Experience: ICBO Accessibility / Usability Specialist
- Education: Drake University and University of North Texas
- Certification: Registered Accessibility Specialist in Texas (RAS-139 since 1994)
- Certification: Licensed CASp for the State of CA (CASp-758 since 2016)

Kristi has 40+ years of experience in the vanguard of accessibility compliance-related issues. Kristi has an extensive training program for local, national, and international municipalities, architects, building owners, property managers, contractors and real estate brokers on local, state, and federal accessibility standards.

She has worked with several metropolitan planning organizations (MPOs) across the country to host roundtables on ADA transition plan requirements. Kristi has helped numerous municipalities and Title II entities to become compliant with applicable federal and state accessibility standards. She is also the principal consultant for accessibility assessments and development of ADA transition plans. Kristi performs plan reviews and on-site inspections to determine compliance with the Texas Accessibility Standards and oversees the general oversight of Registered Accessibility Specialists.

Kristi is the primary liaison with the United States Access Board and other agencies and organizations that shape accessibility legislation and trends.
Over the past four decades, Kristi has been involved in all types of access projects, from FHA inspections to NFL stadiums, from small town Transition Plans to entire state Transition Plans. Her knowledge and expertise are unmatched on experience with the ADA, Section 504 of the Rehabilitation Act, Title VI, FHA, Air Carrier Access Act and various state and local access requirements. She is regularly sought after as an expert witness for ADA-related cases.

STEVEN LEWANDOWSKI (ACCESSOLOGY)
ADA CASp CONSULTANT

- Education: Bachelor of Architecture, University of Texas, Austin
- Certifications: Texas Registered Accessibility Specialist (RAS-1074 since 2006)

Steven brings 18 years of overall accessibility experience. He previously worked as an Accessibility Specialist with the Texas Department of Licensing and Regulation. Over the past 12 years, he has helped several municipalities and Title II agencies perform self-evaluations and develop their ADA transition plans. As part of the transition plan development process, Steven has evaluated numerous public buildings, parks, sidewalks, and curb ramps.

He has assisted in the establishment of evaluation criteria, methodology, and procedures to evaluate, provide cost projections, and implement ADA improvements. He has also been involved in reviewing current programs, services, and activities related to ADA and provides guidance to staff and clients regarding the application of the ADA standards.

b. **Chain of Command**

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NMUSD

Jason Johnson
Contract Admin

Joey Tosta
Project Manager

Kristi Avalos
CASP

Project Admin

Field Surveyors
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c. **Roles & Responsibilities**

**Contract Administrator (Jason Johnson):**

- Maintain safety culture, training and goal to maintain perfect safety record
- Oversee contract negotiations, insurance requirements and compliance
• Lead kick-off efforts, mobilization, site visits and staffing team
• Oversee software implementation and Quality Assurance
• Conduct client training and technical support
• Ensure project objectives are executed with excellent customer service

Project Manager (Joey Tosta):

• Serve as Primary Point of Contact to NMUSD
• Responsible for overall progress of project, scheduling, personnel, equipment, work processes, reports, deadlines, and initiating corrective action where necessary
  o Design and assign schedules for daily execution
  o Monitor progress and completion of assessments
  o Communicate schedule, personnel, and process changes
  o Report issues and perform conflict resolution
• Ensure project deadlines are met: Generate monthly progress reports
• Maintain records of actions completed during the project
• Mitigate project risks, including the development of contingency
• Train, manage, and oversee direct reports

CASp (Kristi Avalos)

• Review maintenance and rehabilitation (M&R) strategies with District representatives
• Develop maintenance and rehabilitation decision trees
• Create PCI reports, maintenance and rehabilitation history reports, maintenance and rehabilitation decision trees, budgetary needs, budget scenario reports and multi-year work plans.

Field Surveyors (TBD):

• Wear Cartigraph uniform at all times during project
• Maintain highest levels of safety, efficiency, and professionalism
• Use of mobile device iPad, software, equipment and measuring tool to capture data
• Perform pavement surveys: surface type, surface condition, surface distress, pavement quality, drainage properties and Pavement Condition Index.
• Perform sidewalk assessments: cracking, lifting, spalling, uneven pavement and trip Hazards, cross slope and curb ramps
• Inspect street pavement distress: alligator cracking, bleeding, block cracking, bumps and sags, corrugation depression, edge cracking, joint reflection cracking, lane/shoulder drop off, longitudinal and transverse cracking, patching and utility cuts, polished aggregate, potholes, rutting, weathering and raveling
• Take clear photos, accurate measurements (where applicable) and concise notes for each entry

c.  **Level of Effort (availability to complete tasks below):**
2. Project Understanding

a. Project Approach

Upon award of the contract, our Project Manager will begin the process of reviewing background information, documents, planning, coordinating, and scheduling a project kick-off meeting. Project components discussed at the meeting will regard contacts, project schedule, expectations, and communication. Project Manager will maintain all project records, budgets, and communications for the duration of the project and will prepare a project schedule and update it on a weekly basis.

The kick-off meeting is the best opportunity Precision Material Management to introduce proposed project timeline, tasks, and schedules. PMM and the NMUSD teams can review and refine the scope of work, data to be collected, schedules, address concerns, project communications, final deliverables, and the overall project strategies and goals. Our goal is to make certain we have a clear understanding of the NMUSD priorities going into the start of a project.

PMM will generate an agenda and record meeting minutes to ensure project wide understanding and record all decisions made at the kick-off meeting. Often the goal setting and confirmation of scope and deliverables can be discussed and settled at the meeting. Achieving these expectations on the frontend means that we can minimize impacts during the life cycle of the project.

Task 1: Kickoff Meeting, Project Management and Reporting

- PMM prior to meeting will draft project framework/schedule, refine tasks, identify project communication, and decision procedures.
- Coordinate with NMUSD staff to identify and obtain any necessary documents and materials to support surveying process
- Full demonstration of software, database, management, cloud visibility, tools, features, GIS format (GIS will be compatible with existing system), Q & A
- Software training for real-time monitoring
- High level Project Plan – timetable, objectives, goals, Tasks, and support
- Determine campus availability and access

Task 2: Risk Management

- Cartigraph meets the required insurance types and limits and will submit COI upon award.
Task 3: Data Collection and Reporting

- Cartigraph intends to survey an average of 4 campuses per week over 12 weeks.
- As we are heading into fall/winter we have built in enough buffer to account for weather or encountering unforeseen obstacles, as to not affect our ability to complete the surveys within the 12 weeks.
  - 12 weeks to completion
  - 1 Project Manager + 5 Field Surveyors
  - Approximately 4 locations per week (since some locations are located adjacent to each other, Cartigraph will work with NMUSD staff to schedule surveys in the most efficient method)
  - Milestone 1 – 15 locations surveyed
  - Milestone 2 – 30 locations surveyed
  - Surveying completed by end of week 13

Task 4: Review Maintenance and Rehabilitation Strategies

- Via in-person meeting or video conference, Cartigraph shall review maintenance and rehabilitation (M&R) strategies with District representatives.

Task 5: Reports

- Consultant will prepare a final report for the client. This report will include:
  - An executive summary (per location)
  - Inventory reports for the entire database (available 24/7)
  - PCI reports
  - Maintenance and rehabilitation history reports
  - Maintenance and rehabilitation decision trees
  - Budgetary needs
  - Budget scenario reports
  - Multi-year work plans
  - Ranked deficiencies
  - Hazard class types from high risk to low risk
  - Estimates cost of repair for each hazard identified

Task 5: Training Curriculum

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Details</th>
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<tbody>
<tr>
<td>5 Minutes</td>
<td>Introduction</td>
<td>• Introductions&lt;br&gt;• System Overview &amp; Access</td>
</tr>
<tr>
<td>10 Minutes</td>
<td>Maps</td>
<td>• How to locate Projects&lt;br&gt;• How to navigate maps and view information&lt;br&gt;• Understanding Survey Information</td>
</tr>
</tbody>
</table>
### 30 Minutes

**Data & Reports**
- View Standard Reports
- Create Custom Reports
- Searches and Queries
- Export to XLS

### 15 Minutes

**Support**
- Troubleshooting Common Issues
- Frequently Asked Questions
- Submitting Work Tickets
- Questions and Answers

### 20 Minutes

**Account Management**
- Account Types and Access
- Password Reset and Reminders
- Email Notifications
- Managing Dashboard

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b. **Project Schedule:**

<table>
<thead>
<tr>
<th>TASK</th>
<th>WEEKS</th>
</tr>
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<tbody>
<tr>
<td>1. KICK-OFF MEETING</td>
<td>1</td>
</tr>
<tr>
<td>2. RISK MANAGEMENT</td>
<td>2-4</td>
</tr>
<tr>
<td>3. DATA COLLECTION AND REPORTING</td>
<td>5-12</td>
</tr>
<tr>
<td>4. REVIEW MAINTENANCE / REHAB STRATEGIES</td>
<td>13-16</td>
</tr>
<tr>
<td>5. FINAL REPORTS</td>
<td>17-18</td>
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<tr>
<td>6. TRAINING</td>
<td>19-24</td>
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3. **REFERENCES (ACCESSOLOGY)**

**City of Edmond**

Served as the accessibility consultant team for the development of the city’s Transition Plan. This project involved reviewing buildings, parks, sidewalks, intersections, signalized intersections, programs, services, activities, employment practices, and emergency evacuation procedures for the development of a comprehensive Transition Plan.

- Project Contact: Phil Jones, Sustainability Planner, 405-359-4518, phil.jones@edmondok.com
- Project Start Date: Sep 2014 / Project End Date: Mar 2020 (multi-phase project)

**City of Pflugerville, TX**

Served as the accessibility consultant team for the development of the Town of Pflugerville transition plan. The project team established evaluation criteria, methodology and procedures to evaluate, provide cost projections, and implement ADA improvements for the City. The City of Pflugerville had the following facilities evaluated: 9 buildings, 5 parks, 2 miles paved trails and 2 miles of unpaved trails. The
project team reviewed the City’s current programs, services, and activities related to ADA and provided training to City staff on ADA compliance.

- **Project Contact:** Ali Abdelfattah, P.E., Assistant City Engineer, 512-990-6300, AliA@pflugervilletx.gov
- **Project Start Date:** May 2020 / **Project End Date:** Oct 2020

**Town of Addison**

Served as the accessibility consultant team for the development of the Town of Addison’s transition plan. They established evaluation criteria, methodology and procedures to evaluate, provide cost projections, and implement ADA improvements for the Town. The Town of Addison had the following facilities evaluated: 7 miles of sidewalk, 14 buildings, and 7 parks. The project team reviewed the Town’s current programs, services, and activities related to ADA and provided training to Town staff on ADA compliance.

- **Project Contact:** Bill Elliott, Building Official, 972-450-2889, belliott@addison.gov
- **Project Start Date:** Apr 2017 / **Project End Date:** Feb 2018

**Town of Gilbert, AZ**

Served as the accessibility consultant team for the development of the Town’s transition plan. They established evaluation criteria, methodology, and procedures to evaluate, provide cost projections, and implement ADA improvements for the town. The Town of Gilbert had the following facilities evaluated: 27.53 miles of sidewalk, 48 buildings, 26 parks and 11 standalone parking lots. The project team reviewed the Town’s current programs, services and activities related to ADA and provided training to town staff on ADA compliance.

- **Project Contact:** Rick Hooker, Sr. Project Manager, 480-503-6933, Richard.Hooker@gilbertaz.gov
- **Project Start Date:** Jul 2017 / **Project End Date:** Sep 2018

**City of Gallatin**

Served as the accessibility consultant for the development of the city’s transition plan. The project team established evaluation criteria, methodology, and procedures to evaluate, provide cost projections, and implement ADA improvements for the city. The City of Gallatin had the following facilities evaluated: 15.5 miles sidewalks, 17 buildings, 8 parks, 8 miles unpaved trails, and 4 pedestrian bridges. The project team reviewed the city’s current programs, services and activities related to ADA and provided training to city staff on ADA compliance.

- **Project Contact:** Jamiann Hannah, Risk Manager, 615-230-0681, jami.hannah@gallatintn.gov
- **Project Start Date:** Jan 2018 / **Project End Date:** Oct 2018
4. PAST PERFORMANCE

Oklahoma Department of Transportation

Statewide transition plan which involved assessing hundreds of buildings, weigh stations, rest stops and welcome centers as well as thousands of intersections, signalized intersection and miles of sidewalk throughout the state of Oklahoma. This project included over 100 hours of training to all types of field personnel.

University of Texas, Austin – Austin, TX

Consultant team for the development of the University’s exterior elements and facility portion of the transition plan. This phase involved reviewing all exterior routes and access from the exterior routes to the entrances of each facility and all campus parking lots. This information is being used to develop and interactive map of accessible routes for students on campus with disabilities.

New Dallas Cowboys Stadium – Dallas, TX

Accessology was selected as the accessibility consultant for the design and construction of the 1.1 billion-dollar new Dallas Cowboys Stadium. Accessibility compliance throughout the project included design consultation meetings, preliminary and final reviews of schematic design, design development, 50% CD, and 90% CD phases, preliminary on-site inspections, (phase I, II and III) final inspections, formation and oversight of a Disability Advisory Committee to supervise the project, and TDLR and state meetings.

PBF Energy, Exxon Mobil and Phillips66

Cartigraph is responsible for software and services to support their warehousing needs for maintenance projects within their local oil refineries.

PBF currently uses SAP to create purchase orders but had no method of managing inventory and making on-hand inventory available to Project Managers, Engineers and Vendors. PMM integrated EZTRAK with SAP to (a) retrieve: Purchase Orders, OH QTY, Vendor information, etc. (b) give Project Managers the ability to create Pick Tickets (orders), assign Orders to Vendors, give Vendors approval to pick-up material, track Chain of Custody, receive alerts when material arrived and implement an approval hierarchy (c) Enabled PMM warehouse personnel to receive/stage/issue material to provide status to Project Managers, as well as take photos, import files and leave notes (D) send material status updates back to SA for Buyers, Costs Analysts and Accounts Payable to manage.

United States Department of Defense

Cartigraph successfully developed and implemented a data collection mobile application in which multiple teams consisting of 10-15 surveyors each conducted barcode inventory counts. Scans were captured in real-time, compared to database to identify matches and populated cost reports and status updates.
5. DISCLOSURE OF CLAIMS AND LAWSUITS
   a. Disclosure of Lawsuits: Cartigraph Technologies, LLC has no current or past lawsuits, of any kind, including but not limited to: breach of contract, professional negligence, errors and omissions, malpractice, improper practices, or ethics violations.
   b. Disclosure of Claims: Cartigraph Technologies, LLC has no current or past claims, of any kind.

6. COST PROPOSAL
   a. Total Cost for Original Scope: **$135,876.00**

   Cost Breakdown:

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<th>Role</th>
<th>Bill Rate</th>
<th>Task 1</th>
<th>Task 2</th>
<th>Task 3</th>
<th>Task 4</th>
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b) Additional Pricing per Addendum 1:
   - Task 5 - ADA Assessment: **$54,000.00**
   - Task 3 – Core Samples: **$63,000.00**