

# Purchase Agreement

**Cartegraph** is pleased to present this Purchase Agreement for the implementation of world class technology solutions. This Purchase Agreement is made and entered into between Village of Lombard (hereinafter referred to as “**Customer**” or “**Licensee**” and **Cartegraph Systems, Inc.** (hereinafter referred to as “**Cartegraph**”). This Purchase Agreement is intended to supplement, clarify, and amend the Master Agreement previously executed between **Cartegraph** and **Customer**. In the case that any terms or conditions provided in the Master agreement differ from, are provided in more detail by, or are made irrelevant by the terms and conditions provided in this Purchase Agreement, the terms in this Purchase Agreement shall control. For all terms and conditions not addressed by this Purchase Agreement, the Master Agreement, #MA142 dated October 21, 2015 shall control.

<b>Customer Bill To:</b>	<b>Customer Ship To:</b>
Village of Lombard 255 E. Wilson Avenue Lombard, IL 60148 630-620-5712	Same

## Investment Summary

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**Cartegraph’s** proposed fees for this project are included in the summary below.

**Date:** May 17, 2017

**Purchase Agreement** September 29, 2017  
**Expiration Date:**

**Purchase #PA549**  
**Agreement**  
**No.:**

	Purchase Type	Qty.	Unit Price	Total Price
<b>YEAR 1</b>				
<b>DATA SERVICES</b>				
Data Services	Fixed Fee Service	1	\$57,700.00	\$57,700.00
<b>TOTAL COST</b>				<b>\$57,700.00</b>

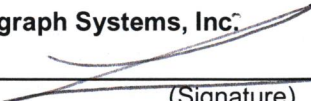
**NOTES:** The pricing listed above does not include applicable sales tax.

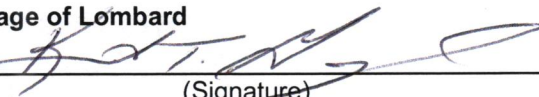
# Payment Terms and Conditions

In consideration for the Services and Products provided by **Cartegraph** to **Customer**, **Customer** agrees to pay **Cartegraph** Software Costs and Professional Service Fees in U.S. Dollars as described below:

1. **Delivery:** Software Products shall be licensed upon acceptance of this Purchase Agreement. If applicable, Services will be scheduled and delivered upon your acceptance of this Purchase Agreement, which will be considered as your notification to proceed.
2. **Services Scheduling:** **Customer** agrees to work with **Cartegraph** to schedule Services in a timely manner. All undelivered Services shall expire 365 days from the signing of this Purchase Agreement, unless a delay in the delivery of Data Services is caused by Cartegraph, in which case the expiration date for the delivery of Data Services shall be extended a number of days equal to the number of days the delivery of Data Services is delayed by Cartegraph. The Force Majeure provision of Addendum C shall also apply to this Purchase Agreement.
3. **Data Services Invoicing:** Invoicing for the Data Services fee shall occur upon the acceptance of this Purchase Agreement and shall be invoiced as follows:
  - a. **Installment 1 due upon commencement of pavement and/or street level mapping services**– 20% of pavement and/or street level mapping services, \$18,900.00.
  - b. **Installment 2 due upon field completion of pavement and/or street level mapping services** – 35% of pavement / street level mapping services, \$16,975.00.
  - c. **Installment 3 due upon completion of AQ/QC Process for Collected Data** – 35% of pavement / street level mapping services, \$16,975.00.
  - d. **Installment 4 due upon final delivery of data** – 10% pavement and/or street level mapping services, \$4,850.00.
4. **Expenses:** In providing the field services included in this Purchase Agreement, **Cartegraph** shall be reimbursed for any reasonable out-of-pocket costs, including, but not limited to, travel, lodging, meals, and cancellation fees. Out-of-pocket expenses are billed based on actual costs incurred and are due separately.
5. **Payment Terms:** Customer shall make all payments in accordance with the Illinois Local Government Prompt Payment Act.

BY EXECUTING THIS PURCHASE AGREEMENT, CUSTOMER ACKNOWLEDGES THAT IT HAS REVIEWED THE TERMS, CONDITIONS, FEES AND CHARGES PROVIDED HEREIN AND IN THE MASTER AGREEMENT, AS WELL AS ANY OTHER EXHIBITS TO THE MASTER AGREEMENT, AND CUSTOMER AGREES TO BE LEGALLY BOUND BY EACH SUCH AGREEMENT.

**Cartegraph Systems, Inc.**  
By   
(Signature)  
\_\_\_\_\_  
Tim McCool  
(Type or print name)  
Title Director of Sales  
Date 7/5/17

**Village of Lombard**  
By   
(Signature)  
\_\_\_\_\_  
Keith Giagnorio  
(Type or print name)  
Title Village President  
Date July 20, 2017



**Cartegraph Systems, Inc.**  
**Addendum C - Data Services (Fee for Service)**  
**Cartegraph Data Collection Services – Scope of Work**

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**Description of Data Services**

This Addendum C, executed as of May 16, 2017 (the “**Effective Date**”), and the Purchase Agreement (the “**Purchase Agreement**”), executed as of the same date hereof, are addendums to that certain Master Agreement #MA142 (the “**Master Agreement**”) between Cartegraph Systems, Inc. (“**Cartegraph**”) and the Village of Lombard (“**Customer**”).

The data services (the “**Data Services**”) listed in the *Investment Summary* of the Purchase Agreement are specific Cartegraph services which will be delivered to the Customer based on the descriptions below and on the terms and conditions and subject to the limitations set forth in this Addendum C, the Purchase Agreement and the Master Agreement. Cartegraph will coordinate with the Customer on service delivery expectations and timeframes.

**Cartegraph Data Collection Services – Scope of Work**

Cartegraph Data Collection Services include the following:

**Project Initiation, Planning, and Management**

***Project Orientation***

The Cartegraph project manager will schedule a remote project orientation meeting with the customer project team. During this meeting the entire project team will review the proposed project work plan, including scope of work, budget, schedule, and deliverables. The meeting may include:

- Introduction of the project team and their respective responsibilities
- Review the scope of work
- Review the work plan and schedule including milestone dates for data review, delivery, and acceptance
- Review the proposed Quality Management Plan (QMP) and expectations
- Information Exchange – (gathering history, background, levels of service measures, decision making framework, and review/discuss all available information and data)
- Identification of the Customer’s best practices on pavement/asset management. This component will provide an understanding of project success for both the Customer and Cartegraph team.
- Follow up documentation summarizing discussions and decisions. This shall include meeting minutes, final work plan deliverables, and mutually agreed upon adjustments to scope and delivery timelines.

***Regular Progress Updates***

Cartegraph will provide Customer with [monthly/bi-weekly] reports on the status of the project progress. The Status Reports may include the following:

- Weekly written digital report

- Major issues faced on field operation, such as accidents or incidents that occurred, health and safety issues, traffic management, and remedial measures taken to resolve these issues
- Quality control and assurance practices
- Results of data validation / control / acceptance measures undertaken

## Network Definition and Mapping

### ***Pavement Network Inventory - Build/Define Pavement Database***

The first step in a pavement management process is definition of the pavement network. A pavement network is comprised of an inventory of the different physical characteristics of the roadway pavements being managed by the agency. This inventory may either be gathered by estimating the data or physically collecting the required information. The inventory may also be gathered from aerial imagery or publicly available data such as ESRI maps and Google maps. The exact type of inventory information required by an agency depends on what data will be used by the agency to support its management decisions.

The pavement network inventory includes streets within the jurisdiction of that agency that are broken into management sections, typically “block to block” or “intersection to intersection”, and will contain (but not limited to) the items listed in the table below. The “Responsible Party” field identifies the party responsible (Cartegraph or Customer) for providing and populating the information.

<b>Name</b>	<b>Roadway Network Item Description</b>	<b>Responsible Party</b>
<b>Cartegraph ID</b>	Cartegraph generated unique Roadway ID for each roadway section record. Note: Cartegraph will use existing Asset ID if Customer is currently using OMS for pavement management	Cartegraph
<b>Street</b>	Roadway section street name - Cartegraph generated from GIS roadway centerline provided	Cartegraph
<b>Street Back</b>	Cartegraph generated route back street name limit from GIS street centerline provided	Customer
<b>Street Ahead</b>	Cartegraph generated route ahead street name limit from GIS street centerline provided	Customer
<b>Functional Classification</b>	Roadway Traffic Functional Classification - customer desired input i.e. Arterial, Collector, Local.	Customer
<b>Pavement Type</b>	Pavement Surface Type - gathered from Cartegraph field data collection	Cartegraph
<b>Section Length</b>	Roadway Section Length will be gathered from Cartegraph field data collection and/or customer's GIS street centerline file.	Cartegraph
<b>Pavement Width</b>	Customer required input. <i>Note: Cartegraph can collect or populate this item at an additional cost.</i>	Customer
<b>Average Daily Traffic</b>	Annual daily traffic - customer desired input – “if available”	Customer
<b>Last Construction Date</b>	Customer required input. <i>Note: Cartegraph can estimate the Last Construction Date based on the current condition at an additional cost.</i>	Customer
<b>Owner Jurisdiction</b>	Customer desired input “i.e. State, County, City, Private – if available”	Customer

#### **Task Assumptions:**

- a) Customer must provide GIS street centerline identifying the roadway network to be inventoried.



# Pavement Condition Assessment

## Pavement Surface Distress Inspection

Pavement inspectors will identify pavement distresses utilizing Cartegraph's pavement inspection guidelines based on the American Society for Testing and Materials ASTM D6433-11 *Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys*. This standard is established by the American Society for Testing and Materials and is the industry standard for reporting results of pavement condition assessment.

The evaluation of the pavement surface distress is always based on three components:

- **Type** refers to '*What kind?*' of distress or defect is present on the pavement surface.
- **Severity** is defined as '*How bad is the defect?*' in terms of the measurement or degree of wear associated with the condition.
- **Extent** refers to quantity/percentage or '*How much?*' of the pavement sample area is affected by a particular distress.

## Pavement Roughness Inspection

Pavement smoothness is a key factor in determining roadway user satisfaction. To adequately represent drivers' opinions of roadway conditions, Cartegraph uses high-speed road profilers to measure roadway roughness or ride quality.

Cartegraph operates Class 1 (ASTM E950 compliant) ICC high-speed road profilers that calculate an International Roughness Index (IRI). Since its introduction in 1986, IRI has become the road roughness index most commonly used worldwide for evaluating and managing roadway networks and is required for data provided to the United States Department of Transportation's Federal Highway Administration (FHWA). The IRI data is converted to a ride condition index, RCI, so that each section will have a ride score ranging from 1-100. This RCI can then be combined with PCI to produce an overall condition index (OCI) for every roadway section.

## Quality Management Plan

Cartegraph has implemented several tasks throughout the data collection and data processing phases to insure the Customer receives accurate data. The following is a list of tasks that make up Cartegraph's Quality Management Plan:

- Mandatory annual pavement rater course and examination on the pavement rating process per the ASTM D6433-11 standard
- Thorough review of the street network shapefile prior to data collection to identify and address any mapping issues that may lead to data collection errors
- Daily equipment calibration
- Daily intra-rater checks during pavement inspection (no less than two pavement inspectors are deployed on every collection project)
- Inter-rater checks on 10 percent of the segments to insure collected data meets acceptance criteria
- Thorough pavement distress data review after data processing

# Pavement Management Program Optimization & Deployment

## **Pavement Condition Data Load**

All collected pavement distress data will be loaded into the Customer's database by the Cartegraph team. The pavement distress data will then be used to calculate the pavement condition index (PCI). Upon receiving the program data from Cartegraph, the customer must review and accept all condition data supplied within 60 calendar days, provided no discrepancy or issue is found with the delivered data. Unless the Customer notifies Cartegraph in writing of a discrepancy or issue with the delivered pavement distress data within 60-day period, the Customer will be deemed to have accepted the delivered pavement distress data.

## ***Review gaps in Cartegraph OMS Pavement data***

In order to take full advantage of the pavement management system's functionality, and in order for customer staff to have confidence in the system-generated results and recommendations, it is imperative that the program contains the most complete, accurate, and up-to-date network data available.

Cartegraph will conduct a full review of the data available within the pavement management system and provide recommendations for necessary changes.

Cartegraph's review may include the following:

- Basic inventory information, (i.e. Functional Classification, Length, Width, Area, Surface Type, etc.)
- Prediction Groups and Minimum Condition Groups
- Historical condition information, if any
- Status of survey history, if any
- Construction and maintenance history, if any
- Review of maintenance and rehabilitation treatments, unit costs, and protocols

## **Budget and Condition Scenario Analysis**

Multiple funding and target condition scenarios may be analyzed to answer "what-if" questions an agency may have. To determine how much funding is needed, the agency's pavement management system priority programming tools will be utilized to generate alternative plans for various budget stream scenarios. Our team will perform up to five (5) scenario runs based on input from the Customer. Typical funding scenarios may include:

- Existing (current) funding levels
- Do Nothing (No Funding)
- Unlimited funds
- Funding levels required to maintain/ increase/ decrease the OCI/PCI over time
- Funding levels to decrease or eliminate backlog over time



## **Pavement Management Program Report**

Cartegraph's project team will provide a pavement management technical report that shall include:

- **Network Summary Statistics** ~ Summary of roadway network by functional class and pavement type.
- **Condition (Present Status)** ~ listing of every roadway section, latest performance (OCI/PCI), & inspection date.
- **Budget and Condition Scenarios**

### **Council Board / Agency Presentation**

Our team will assist the agency in providing oral presentation of findings and recommendations to the Council, Agency Manager, and/or specific employee groups. The presentation will describe the tasks and deliverables of this project and illustrate the long-term effects that the proposed budget would have on agency streets along with additional funding that may be required for future planning.

#### **Task Assumptions**

- a) Presentation includes a PowerPoint presentation and the presentation and associated meeting takes no more than 3 hours.

### **Overall Scope Assumptions**

- Includes one time mobilization to Lombard, IL
- Up to 148 centerline miles of pavement condition data capture on publically accessible and maintained roadways.
- If pavement width is not available, a default value will be determined during the needs assessment

### **Customer Responsibility**

For the duration of the project, the customer will be responsible for the following:

- Appoint a project manager/coordinator to be responsible for all aspects of the project.
- Review scope of work
- Ensure all scheduled meetings are attended by invited staff.
- Approve Project Status Reports
- Authorize project work
- Accept agreed upon deliverables defined in the scope of work
- Consult and partner with the Cartegraph Project Manager on a continuing basis
- Provide leadership on all issues related to the customer, such as policy, organization, staff, technical architecture, data, and current systems.
- Monitor progress of the project, including the review of Cartegraph regular status reports and managing internal resources.



## Exclusions

The following service items are not included in the scope of this project:

- Any service items discussed during demonstrations, conference calls, or other events are not included in the scope of this project unless specifically listed herein.

Modifications to the contract shall comply with all Federal, State, and local regulations.

## Customer Responsibilities

Customer accepts responsibility for all aspects of project planning, management, and execution not specifically identified as the responsibility of Cartegraph in this Addendum C, the Master Agreement or the Purchase Agreement. Ongoing management of the day-to-day allocation of Customer resources and management of Customer project tasks is the responsibility of Customer. Customer will provide overall guidance and direction for the project and will direct the project accordingly. Further, and with regard to the Cartegraph obligations listed in this Addendum C, Customer understands that it is vital to the success of the project that Customer provides assistance in the following matters:

1. For those services listed under Data Services, Cartegraph personnel will conduct information gathering and evaluation sessions with various Customer users and management. While Cartegraph respects the time and workload of Customer staff, dedicated time on the part of the appropriate Customer resources is necessary to complete these exercises.
2. The Data Installation process requires the assistance of Customer personnel and suitable access to hardware and systems (e.g., security clearance). Customer is required to supervise the Data Installation process while systems are accessible to Cartegraph. All hardware and software, including the Customer's workstation platform and database, is expected to be available, installed, and operating as specified in Cartegraph's System Requirements documentation such that the Data Installation process and the delivery and execution of Cartegraph Data Services will not be impeded. Cartegraph shall not be liable to Customer for any damage sustained to the Customer Database or any data contained therein or any hardware or software of Customer utilized by Cartegraph in connection with the Data Installation, unless intentionally damaged by Cartegraph or caused by negligent or willful and wanton acts of Cartegraph.
3. Customer understands that the successful performance of Data Services depends upon Customer fulfilling its responsibilities, including that Customer will provide all personnel required to achieve a successful implementation.
4. Customer shall install and network its own hardware and communications and ensure these tasks will not affect the timing or delivery of Cartegraph services.
5. Customer will provide Internet access and IT staff support as required. For those services that are web-based, Cartegraph utilizes WebEx Meeting (or similar) technology.
6. Customer agrees to work with Cartegraph to schedule services in a timely manner. All undelivered Data Services shall expire 365 days from execution of this Addendum C, unless a delay in the delivery of Data Services is caused by Cartegraph, in which case the expiration date for the delivery of Data Services shall be extended by a number of days equal to the number of days the delivery of Data Services is delayed by Cartegraph. Upon expiration of services, the project may be cancelled at Cartegraph's discretion.
7. Except for the submission of payment when due, neither Party shall be liable for any failure or delay of performance to the extent that such failure or delay is caused by reason of acts of God, wars, revolution, civil commotion, acts of public enemy, embargo, restraint or hindrance by any governmental or regulatory authority including, without limitation, unfavorable actions or failures to act of or by such authorities, labor difficulties, including without limitation, strikes, slowdowns, picketing or boycotts (involving third parties unrelated to the Party invoking the terms of this Section), or any other circumstances beyond the reasonable control and not involving any fault or negligence of the Delayed Party (each a "Force Majeure Event"). If any such Force Majeure Event occurs, the Party delayed or unable to perform ("Delayed Party"), upon giving prompt notice to the other Party, shall be excused from such performance or non-performance, as the case may be, under this Purchase Agreement on a day-to-day basis during the continuance of such Force Majeure Event (and the other Party shall likewise be excused from performance of its obligations on a day-to-day basis during the same period); provided, however, that the Party so affected shall use commercially reasonable efforts to avoid or remove such Force Majeure Event, and both Parties shall proceed as quickly as possible under the circumstances with the performance of their obligations under this agreement whenever such causes are removed or cease.

## Limitation of Liability

Customer acknowledges and agrees that Customer's use or nonuse and any reliance upon the data provided as part of the Data Services is at Customer's own risk, and that no representations or warranties are provided by Cartegraph with respect to the Data Services except as expressly set forth herein and in the Master Agreement. Each party agrees to be responsible for its own liability incurred as a result of its participation in this Agreement.

## Appropriations

It is expressly acknowledged that the Customer is a non-home rule municipality operating under limitations imposed by Illinois law." Then, the Village can be referred to as the "Customer" throughout the rest of the provision for the purpose of consistency.. Notwithstanding any other provision of this Agreement, with respect to any financial obligation of the City which may arise under this Agreement in any fiscal year after the year of execution, in the event the budget or other means of appropriation for any such year fails to provide funds in sufficient amounts to discharge such obligation ("**Funding Failure**"), (i) the City shall notify the Company immediately upon discovery of such Funding Failure, (ii) the City shall have the option to terminate this Agreement at such time as the then-existing and available appropriations are depleted; provided that the City shall have satisfied all outstanding payment obligations owed to the Company prior to such termination, and (iii) except as set forth in section (ii) above, neither such Funding Failure nor termination shall constitute a default or breach of this Agreement, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City. As used herein, the term "appropriation" shall mean and include the due adoption of an appropriation ordinance and budget and the approval of a Budget Detail Report (Resource Allocations) which contains an allocation of sufficient funds for the performance of fiscal obligations arising under this Agreement. The funds appropriated for this Agreement are equal to or exceed the Agreement amount for the year in which this Agreement was awarded.

## Term

The term of this Addendum C shall commence as of the Effective Date and shall continue for a period of one (1) year (the "**Term**"), unless terminated earlier as provided for in the Purchase Agreement, Master Agreement or this Addendum C..

## Not-to-Exceed Proposal

Cartegraph will not exceed the total included in the Purchase Agreement without written approval from Customer. In the event it becomes apparent to Cartegraph that additional service efforts will be needed due to any changes in the scope of this Addendum C or the Purchase Agreement, Cartegraph will notify Customer prior to exceeding the approved efforts and obtain written approval if additional Software or Data Services are required.

*[Signatures appear on following page]*



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BY EXECUTING THIS ADDENDUM C, CUSTOMER ACKNOWLEDGES THAT IT HAS REVIEWED THE TERMS, CONDITIONS, FEES AND CHARGES PROVIDED HEREIN AND IN THE MASTER AGREEMENT AND THE PURCHASE AGREEMENT AS WELL AS ANY OTHER EXHIBITS AND ADDENDUMS TO THE MASTER AGREEMENT, AND CUSTOMER AGREES TO BE LEGALLY BOUND BY EACH SUCH AGREEMENT.

**Cartegraph Systems, Inc.**

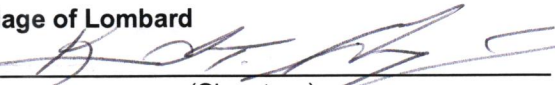
By   
(Signature)

Tim McCool  
(Type or print name)

Title Director of Sales

Date 7/5/17

**Village of Lombard**

By   
(Signature)

Keith Giagnorio  
(Type or print name)

Title Village President

Date July 20, 2017