



# City of Las Cruces®

PEOPLE HELPING PEOPLE

## Council Action and Executive Summary

Item # 7Ordinance/Resolution# 15-16-145For Meeting of \_\_\_\_\_  
(Ordinance First Reading Date)For Meeting of March 7, 2016  
(Adoption Date)

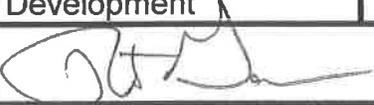
Please check box that applies to this item:

 QUASI JUDICIAL LEGISLATIVE ADMINISTRATIVE

**TITLE:** A RESOLUTION AWARDING A CONTRACT TO INFRASTRUCTURE MANAGEMENT SERVICES OF TEMPE, ARIZONA TO COLLECT DATA FOR THE PAVEMENT MAINTENANCE PROGRAM AND THE COLLECTION OF CITY OF LAS CRUCES (CITY) ASSETS WITHIN CITY RIGHT-OF-WAY, IN THE AMOUNT OF \$592,840.00, PLUS \$49,279.83 FOR GROSS RECEIPTS TAX, FOR A TOTAL PROJECT AUTHORIZATION OF \$642,119.83.

**PURPOSE(S) OF ACTION:**

Award contract.

<b>COUNCIL DISTRICT: ALL</b>		
<b><u>Drafter/Staff Contact:</u></b> Louis Grijalva, P.E.	<b><u>Department/Section:</u></b> Public Works / Project Development	<b><u>Phone:</u></b> 528-3479
<b><u>City Manager Signature:</u></b>		

**BACKGROUND / KEY ISSUES / CONTRIBUTING FACTORS:**

The City of Las Cruces has approximately 500 lane miles of paved roadways within the City limits. It is therefore vitally important the Public Works Department has a means to continue to objectively measure and analyze the condition of all street pavement surfaces within the City.

In January 2011, City Council approved Resolution 10-11-421A to purchase pavement maintenance software and have all existing street pavement surfaces surveyed. Infrastructure Management Services (IMS) collected data using a vehicle equipped with a laser road surface tester to scan and measure the road surfaces, and ground penetrating radar to assess the thickness and density of the existing pavement surface and underlying sub-base. They also used a deflection testing on all collectors and arterials to determine the rating of the existing pavement surface.

The Pavement Management Program uses a sophisticated GIS software assisting the City in the process of planning, budgeting, designing, constructing, monitoring, evaluating, maintaining, and rehabilitating the pavement network to provide the maximum benefits from the available funds.

The Public Works Department is recommending IMS re-evaluate the street pavement surfaces and adjust the pavement deterioration curves to better fit the local conditions. This re-evaluation process is recommended every five (5) years.

In addition to re-evaluating and collecting road surface data, IMS will collect and develop an inventory of all assets within City right-of-way. IMS uses digital cameras and a GPS coordinate system to collect data on existing sidewalks, ADA ramps, traffic signs, curb and gutters, pavement markings, traffic signals, traffic cabinets, fire hydrants, street lights for location verification and condition assessment management. In addition to the sidewalk and ADA ramp inventory, IMS will use a mobile sidewalk tester to perform manual assessments to verify sidewalks are ADA compliant. All areas not in compliance will be inventoried and all data collected will be integrated into the City's GIS and Lucity Software.

Per Ordinance No. 2746 all non-construction, non-capital improvements, related goods or services which exceed the threshold of \$75,000 require City Council approval. At this time, staff recommends City Council award the Professional Services Contract to IMS for pavement data collection and right-of-way asset inventory development, as documented on the attached quote for Professional Services: Items 1 through 20 (Attachment "A").

**SUPPORT INFORMATION:**

1. Resolution.
2. Exhibit "A", Purchasing Manager's Request to Contract.
3. Attachment "A", IMS – Quote for Professional Services.
4. Attachment "B", Purchasing Section Sole Source Determination.

**SOURCE OF FUNDING:**

<b>Is this action already budgeted?</b>	Yes	<input checked="" type="checkbox"/>	See fund summary below
	No	<input type="checkbox"/>	If No, then check one below:
	<i>Budget Adjustment Attached</i>	<input type="checkbox"/>	Expense reallocated from: _____
		<input type="checkbox"/>	Proposed funding is from a new revenue source (i.e. grant; see details below)
		<input type="checkbox"/>	Proposed funding is from fund balance in the _____ Fund.
<b>Does this action create any revenue?</b>	Yes	<input type="checkbox"/>	Funds will be deposited into this fund: _____ in the amount of \$ _____ for FY _____.
	No	<input checked="" type="checkbox"/>	There is no new revenue generated by this action.

**BUDGET NARRATIVE**

N/A

**FUND EXPENDITURE SUMMARY:**

Fund Name(s)	Account Number(s)	Expenditure Proposed	Available Budgeted Funds in Current FY	Remaining Funds	Purpose for Remaining Funds
Street Maintenance Operations	26226080-722190	\$282,440.93	\$282,441.00	\$0.07	N/A
Flood Control Operations	26226070-722190	\$332,990.70	\$407,990.70	\$75,000.00	Other projects
Water Contingency Fund	53538560-722190	\$26,688.20	\$100,000.00	\$73,311.80	Other projects

**OPTIONS / ALTERNATIVES:**

1. Vote "Yes"; this will award the contract for professional services to IMS of Tempe, Arizona in the amount of \$592,840.00, plus \$49,279.83 for New Mexico Gross Receipts Tax, for a total authorization of \$642,119.83.
2. Vote "No"; this will reject the contract award. Staff will need further direction to bid or abandon the collection of data for the Pavement Management Program and asset collection within City right-of-way.
3. Vote to "Amend"; this could reject the contract award and will provide an opportunity to re-scope and bid the collection of data for the Pavement Management Program and asset collection within City right-of-way.
4. Vote to "Table"; this could allow City Council to postpone consideration of the resolution and direct staff accordingly to seek an alternative direction.

**REFERENCE INFORMATION:**

The resolution(s) and/or ordinance(s) listed below are only for reference and are not included as attachments or exhibits.

1. Resolution No. 10-11-421A
2. Ordinance No. 2746



# City of Las Cruces<sup>®</sup>

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## COUNCIL ACTION AND EXECUTIVE SUMMARY PACKET ROUTING SLIP

For Meeting of \_\_\_\_\_  
(Ordinance First Reading Date)

For Meeting of March 7, 2016  
(Adoption Date)

TITLE:

A RESOLUTION AWARDING A CONTRACT TO INFRASTRUCTURE MANAGEMENT SERVICES OF TEMPE, ARIZONA TO COLLECT DATA FOR THE PAVEMENT MAINTENANCE PROGRAM AND THE COLLECTION OF CITY OF LAS CRUCES (CITY) ASSETS WITHIN CITY RIGHT-OF-WAY, IN THE AMOUNT OF \$592,840.00, PLUS \$49,279.83 FOR GROSS RECEIPTS TAX, FOR A TOTAL PROJECT AUTHORIZATION OF \$642,119.83.

Purchasing Manager's Request to Contract (PMRC) {Required?} Yes  No

DEPARTMENT	SIGNATURE	PHONE NO.	DATE
Drafter/Staff Contact		528-3479	2-3-2016
Department Director		528-3125	2-5-16
Other			
Assistant City Manager /CAO Management & Budget Manager		541-2107	2-8-2016
Assistant City Manager/COO			2/10/16
City Attorney		EXT 2128	12 FEB 2016
City Clerk		X2115	2-25-16

**RESOLUTION NO. 15-16-145**

**A RESOLUTION AWARDING A CONTRACT TO INFRASTRUCTURE MANAGEMENT SERVICES OF TEMPE, ARIZONA TO COLLECT DATA FOR THE PAVEMENT MAINTENANCE PROGRAM AND THE COLLECTION OF CITY OF LAS CRUCES (CITY) ASSETS WITHIN CITY RIGHT-OF-WAY, IN THE AMOUNT OF \$592,840.00, PLUS \$49,279.83 FOR GROSS RECEIPTS TAX, FOR A TOTAL PROJECT AUTHORIZATION OF \$642,119.83.**

The City Council is informed that:

**WHEREAS**, in January 2011, City Council approved Resolution 10-11-421A to purchase pavement maintenance software and have all existing street pavement surfaces surveyed; and

**WHEREAS**, Infrastructure Management Services (IMS) collected data using a vehicle equipped with a laser road surface tester to scan and measure the road surfaces, and ground penetrating radar to assess the thickness and density of the existing pavement surface and underlying sub-base. They also used a deflection testing on all collectors and arterials to determine the rating of the existing pavement surface; and

**WHEREAS**, the Public Works Department is recommending IMS re-evaluate the street pavement surfaces and adjust the pavement deterioration curves to better fit the local conditions. This re-evaluation process is recommended every five (5) years; and

**WHEREAS**, in addition to collecting road surface data, staff is recommending IMS collect and develop an inventory of all assets within City right-of-way. IMS uses digital cameras and a GPS coordinate system to collect data on existing sidewalks, ADA ramps, traffic signs, curb and gutters, pavement markings, traffic signals, traffic cabinets, fire hydrants, street lights for location verification and condition assessment management; and

**WHEREAS**, in addition to the sidewalk and ADA ramp inventory, IMS will use a mobile sidewalk tester to perform manual assessments to verify sidewalks are ADA

compliant.

**NOW, THEREFORE,** Be it resolved by the governing body of the City of Las Cruces:

**(I)**

**THAT** the contract for professional services is awarded to IMS of Tempe, Arizona, to collect data for the Pavement Maintenance Program and the collection of City assets within City right-of-way, in the amount of \$592,840.00, plus \$49,279.83 for New Mexico Gross Receipts Tax, for a total authorization of \$642,119.83.

**(II)**

**THAT** the Purchasing Manager is authorized to contract with IMS, as outlined in the signed Exhibit "A", Purchasing Manager's Request to Contract Form, attached hereto and made part of this resolution.

**(III)**

**THAT** City staff is hereby authorized to do all deeds necessary in the accomplishment of the herein above.

**DONE AND APPROVED** this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

APPROVED:

\_\_\_\_\_  
Mayor

ATTEST:

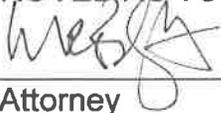
\_\_\_\_\_  
City Clerk

(SEAL)

Moved by: \_\_\_\_\_

Seconded by: \_\_\_\_\_

APPROVED AS TO FORM:



\_\_\_\_\_  
City Attorney

VOTE:

Mayor Miyagishima: \_\_\_\_\_

Councillor Gandara: \_\_\_\_\_

Councillor Smith: \_\_\_\_\_

Councillor Pedroza: \_\_\_\_\_

Councillor Eakman: \_\_\_\_\_

Councillor Sorg: \_\_\_\_\_

Councillor Levatino: \_\_\_\_\_

# CITY OF LAS CRUCES

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## PURCHASING MANAGER'S REQUEST TO CONTRACT

For Meeting of: March 7, 2016

Resolution No.: 15-16-145

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**Sole Source Contract Purchase for  
Data Collection for the Pavement Maintenance Program and Collection of City of Las  
Cruces Assets within City Right-of-Way**

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The Las Cruces City Council is provided the following information concerning this request:

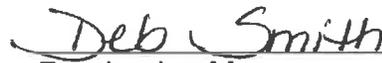
### SOLICITATION INFORMATION:

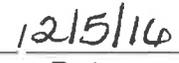
1. Description: **Data Collection for the Pavement Maintenance Program and Collection of City of Las Cruces Assets within City Right-of Way**
2. Using Department: **Public Works**
3. Current Award Recommendation To: **Infrastructure Management Services of Tempe, AZ**
4. Total Award Amount: **\$642,119.83**
5. Contract Duration: **140 Days**

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### PROCUREMENT CODE COMPLIANCE:

The City of Las Cruces Procurement Code was administered in the conduct of this procurement and approval to purchase is hereby requested pursuant to **Section 24-95.**

  
 Purchasing Manager

  
 Date

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### CONFIRMATION OF FUND ENCUMBRANCE:

REQUISITION OR PURCHASE ORDER NUMBER:	<b>16102170</b>
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# Quotation for Professional Services



IMS Infrastructure Management Services  
1820 W. Drake Dr. Suite 108. Tempe, AZ 85283  
Phone: (480) 839-4347 Fax: (480) 839-4348  
www.ims-rst.com

**To:** Hector Terrazas, Civil Engineer Associate  
Senior

**Date:** January 13, 2016

**From:** Jim Tourek,  
Client Services Manager

**Project:** Las Cruces, New  
Mexico

**Subject:** 2016 Pavement Management Services

**Project No:** N/A

Thank you for taking the time to review the pavement data collection services offered by IMS Infrastructure Management Services. IMS excels in pavement and asset management solutions and can provide a full suite of data collection and software implementation services.

As we understand, the City of Las Cruces is in need of a pavement management project and an optional Right-of-Way asset inventory update for their Lucy asset management system. Las Cruces currently maintains approximately 486 centerline miles of roadways and the Laser Road Surface Tester (RST) would survey approximately 616 test miles of City maintained roadways by performing a two pass test on the arterial and collector roadways. IMS collects all data in accordance with the U.S. Army Corps of Engineers data collection protocols, commonly referred to as ASTM D6433. The base scope also includes the development of a pavement analysis and multi-year report completed in Lucy.



Our approach, and key service differentiator, is based on three, time proven fundamentals:

**Answer the questions that are being asked** – don't over-engineer the system or make it needlessly complicated. Databases and the application of technology are meant to simplify asset management, not make it more difficult.

**Service and quality are paramount to success** – the right blend of technically correct data, condition rating, and reporting will provide the agency with a long-term, stable solution. Service to the Client remains our top priority.

**Local control and communications are key** – it is important that all stakeholders understand the impacts of their decisions and have the system outputs react accordingly. We excel in making ourselves readily available.

**Services we can offer the Las Cruces staff include:**

- Objective roadway performance data collection including a full suite of surface distresses.
- Right of way asset data collection and digital image and GPS coordinate data collection.
- Provision of robust software solutions and an advanced knowledge of Lucy.

## City of Las Cruces 2016 Pavement Management Services

### Data Collection

IMS is unique to the industry, as an objective and repeatable data collection effort will be completed. The Laser RST will be used to perform a surface condition assessment of all City owned streets. Instead of using the subjective feet on ground or windshield sampling method, all data will be collected continuously and recorded in 100-foot intervals in the form of a detailed database complete with GPS coordinates. The data will also be aggregated to the section level, following the sectioning and referencing methodology determined after IMS and client review.



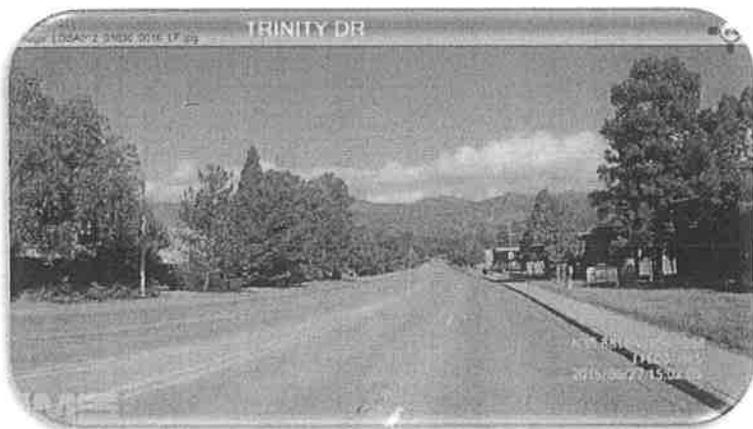
### GIS and Pavement Management Linkage

The role of GIS in pavement management cannot be overstated. It is a powerful tool that provides the capability to handle and present vast amounts of data in an efficient manner. IMS can provide a link between the City's GIS program and the pavement management data to enable the City to display and generate color-coded maps based upon existing pavement conditions, street rehabilitation plans or most of the data developed as a part of the pavement management program. An output of such a plot is illustrated in the adjacent image.



### Digital Images and Right of Way Asset Data Collection

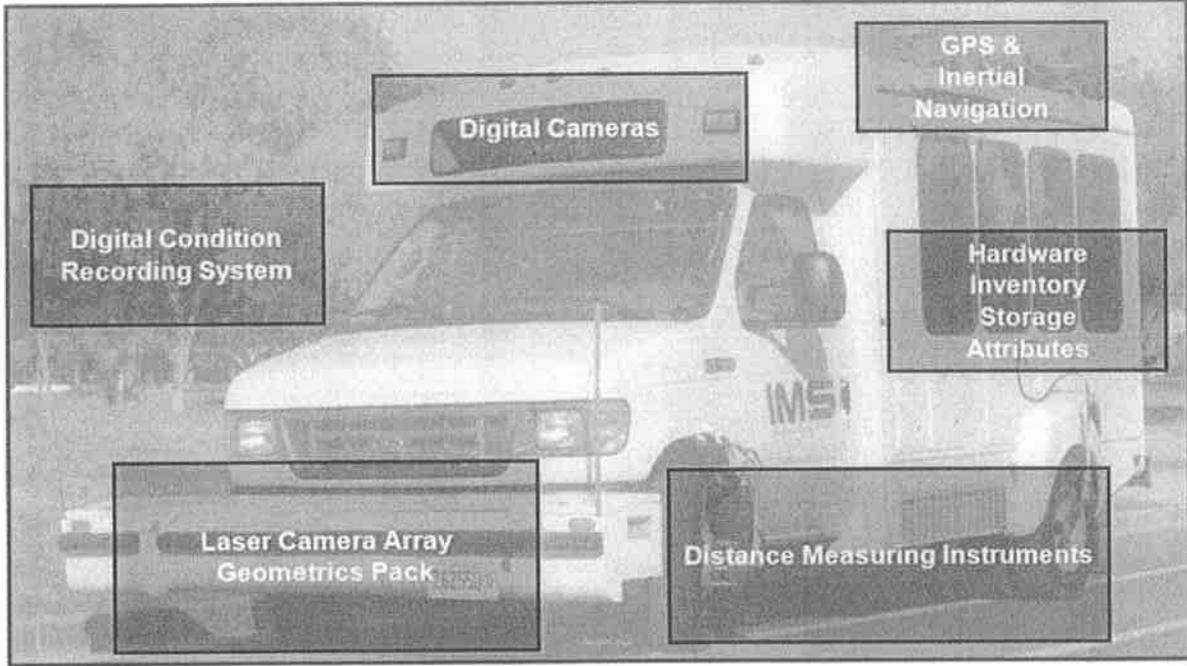
While the RST is traversing the roadway, up to 5 HD cameras can be mounted inside the RST to collect images of the pavement and right of way assets. The following views are typically captured; driver front (forward view), passenger front (ROW view), and driver rear (adjacent ROW view). All video is processed to in-house; developed as an image library at 25-foot intervals for use in QA/QC and for development of the right-of-way asset inventories.



City of Las Cruces  
2016 Pavement Management Services

A Closer Look at the Laser RST Configuration

The following diagram illustrates the full configuration of the RST for pavement condition data collection for a Lucity (ASTM D6433) pavement management project.



<b>Laser Camera Array (LCA)</b>	11 laser sensors that objectively quantify pavement cracking, texture, rutting, roughness (IRI), cross fall, crown, grade, and radius of curvature. The lasers collect data in a severity and extent format that integrates seamlessly with ASTM standards.
<b>Digital Cameras</b>	The Laser RST can be mounted with up to 5 digital cameras depending on each project's unique requirements. Digital images are largely used for many purposes: data validation, virtual drive deliverables to clients, and right of way asset inventory development.
<b>GPS Acquisition</b>	GPS technology is coupled with inertial navigation to enhance the acquisition of accurate longitude and latitude coordinates. Municipal agencies are becoming GIS centric and thus all data must be georeferenced for plotting in a GIS environment and linking with the state XY coordinates.
<b>Distance Measuring Instruments (DMI)</b>	Dual DMI pulse transducers that accurately collect and report vehicle distance and speed. The distance data is integrated with the inventory, GPS data flow, and time code.
<b>Hardware &amp; Storage</b>	The Laser RST is equipped with multiple servers and computers that store the data collected from the lasers, cameras, GPS, and touch-screen event board.
<b>Digital Condition Recording System (DCRS)</b>	The touch-screen event board allows IMS to collect a wide range of data from pavement distresses to the validation of pavement attributes. The touch-screen event board can be configured in any manner we desire and conforms to the ASTM D6433 severity and extent data collection protocols. This is also used for unique asset attribute identification.

**City of Las Cruces  
2016 Pavement Management Services**

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**Lucity Analysis Configuration & 5-Year Plan**

Immediately following the completion of the field survey's IMS will begin processing the pavement distress severity and extent scores in an effort to develop a Pavement Condition Index (PCI) for each roadway segment. The condition results are analyzed by a team of IMS engineers, who then develop a 5-year pavement management plan for the City. This section provides a brief summary of the functionality of the Lucity pavement analysis in order to emphasize our implementation expertise as well as the abilities and constraints within a pavement analysis.

The purpose of pavement management is to produce cost effective maintenance programs that maximize available resources and roadway life. By incorporating key components of a cost benefit analysis into the program operating parameters, we can develop a game plan that is optimized to meet the needs of the Las Cruces staff. In addition, the Lucity analysis operating parameters described within this section will be delivered in an easy to understand Excel Spreadsheet including the segment PCI data, pavement deterioration curves, triggers (priority weight factors), and the prioritized 5-year plan. Everything is linked to GIS in the form of simple shape files or even a personal geodatabase.

**Field Inspection Data and Pavement Condition Index (PCI)**

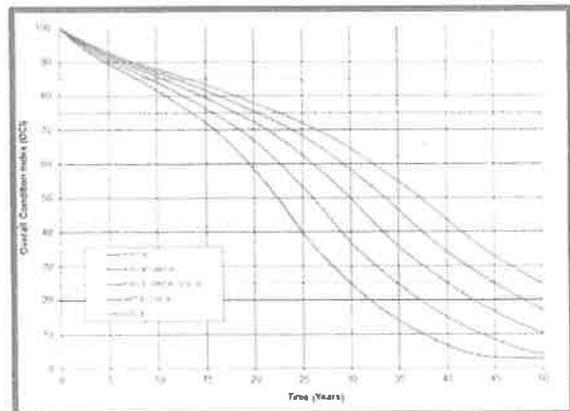
The Lucity analysis allows you to store information regarding your pavements, including surface types, number of lanes, patching estimates, and cross slopes with replacement estimates. Pavement condition data including surface distress, roughness, and deflection results can be stored and analyzed. Using the Lucity Pavement Manager Setup module, we can develop customized condition elements, distress types (load & non-load), Indices (SDI, RI, & SI), weightings, and overall PCI calculations.

In addition to the yearly programs, the net impact each budget scenario has on the expected condition of the road network over time can be determined. This budget impact can be illustrated both in terms of the yearly increase or decrease in the average network PCI score, PCI distribution, or % Backlog of roads that were not selected by the budgets. IMS converts the difficult to understand FHWA and ASTM D6433 data to a 0-10 distress rating scale with distress weighted factors (DWF), where  $DWF = \{\text{Area under D6433 deduct curves}/3000\}$ .

**Modeling and Performance Curves**

With a Lucity analysis, you can forecast various budget scenarios to help you determine your ideal maintenance and rehabilitation schedule. The IMS approach will help you decide what rehab activities should be performed, when and where to perform them, and an ideal budget for your system to maintain it at a specific level of service.

IMS engineers use pavement deterioration models that can be customized to reflect the climatic conditions and structural characteristics of the Las Cruces road network. As a result, performance curves can be developed on factors such as functional class, pavement type and sub-grade strength.



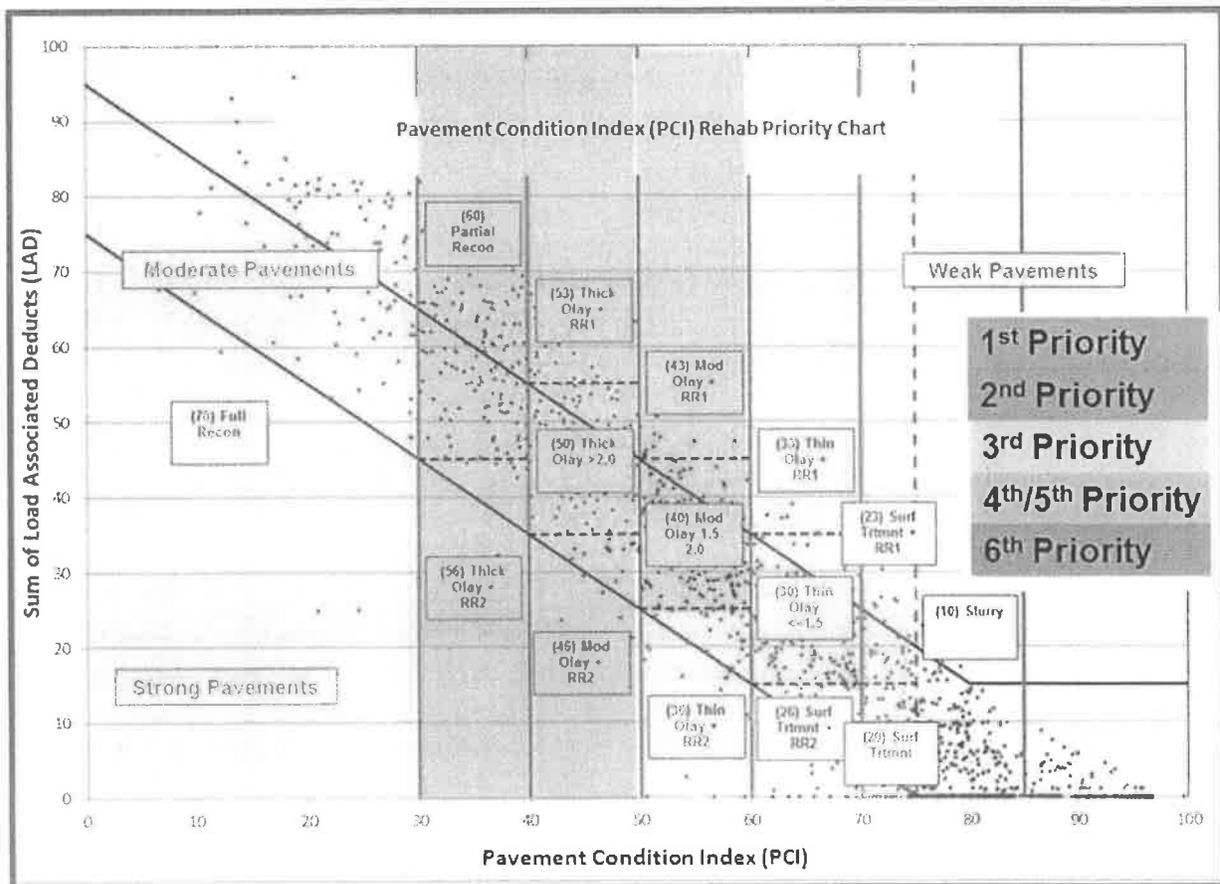
**City of Las Cruces  
2016 Pavement Management Services**

**Set Points and Operating Parameters**

One of the most important aspects of the IMS approach is determining the 'set points' or thresholds of the performance curves and other factors. In general, these set points determine what type of treatment will be selected given the current or predicted condition of a road segment over time.

For example, the scatter plot displayed below illustrates a potential rehab selection process that may be incorporated for Las Cruces. Each dot represents the outcome of a pavement condition assessment on each segment in the road network. The X-axis is the pavement condition score while the Y-axis is a Structural Index (will be developed with load associated distresses for Las Cruces). The boundaries created by the intersection of the vertical green lines and horizontal dashed black lines represent the potential rehabilitation strategy for those given conditions. Each M&R strategy is programmed to take place in the most optimal year for each roadway segment.

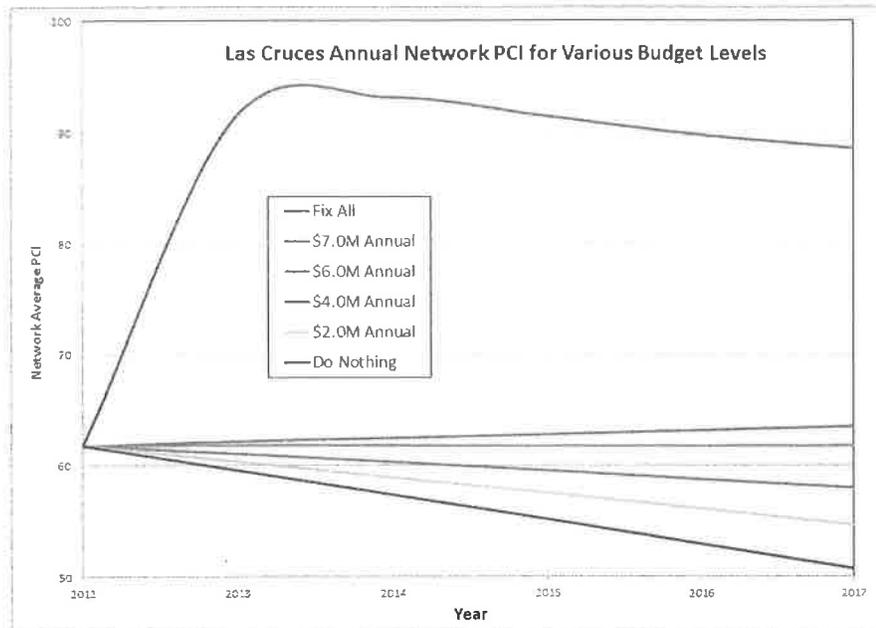
The color bands are also an effective way of illustrating the activity priorities through an analysis that takes into account critical PCI drops, also known as "cost of deferral." The IMS analysis specifically targets "critical segments", which is defined as segments that will drop into a more expensive treatment category if they are not selected now. By presenting the rehab strategies in a visual format such as this, the user, City staff, management, and Councils can easily understand, follow and potentially modify the results with confidence.



## City of Las Cruces 2016 Pavement Management Services

### Rehabilitation Analysis

An unlimited number of pavement maintenance and rehabilitation strategies can be defined within the Lucity system. An analysis is then run, incorporating the performance curves, set points, filter criteria and rehab alternatives to identify the overall need in terms of rehab strategies and costs for the City's road network, for today as well as year on year for the next 5 to 10 years.



The IMS approach allows you to input any number of "what if" budget scenarios and produce prioritized yearly rehab programs based on those funding levels over a multi-year analysis period. Typical budget scenarios include Budget \$/Year, Unlimited Budget \$, "Do Nothing" Budget, and a Target PCI Budget.

### What is included in an IMS analysis & report?

- *Street ownership and inventory/attribute report*
- *Present condition ranking* – detailed and summary condition data including; Good/Fair/Poor, Load Associated Distresses (LAD), Non-LAD, and Project reviews of each street in the network, as well as the network as a whole.
- *Fix all budget analysis* – this identifies the upper limit of spending by rehabilitating all streets assuming unlimited funding.
- *Do nothing analysis* – this identifies the effects of not performing roadway rehabilitation projects.
- *Steady state rehabilitation life cycle analysis* – this identifies the minimum amount of rehabilitation that must be completed in order to maintain the existing level of service over 3, 5, or 10 years.
- *PCI & funding levels* – what funding will be necessary to maintain a PCI of 75, 80, & 85.
- *Plus or minus 50% and other additional runs* – additional budget runs are completed at rates of +50% and -50% of the suggested steady state analysis. Up to 10 budget scenarios will be run.
- *Integration of capital projects and Master Plans* – ongoing and proposed projects that affect roadway rehabilitation planning will be incorporated into the analysis.
- *Draft 5-year rehabilitation and prioritized paving plans* – based on need, available budget and level of service constraints; a minimum of three budget runs will be completed.
- *Final prioritized paving plan* – incorporating feedback from stakeholder departments and utilities, complete with budget and level of service constraints.

## City of Las Cruces 2016 Pavement Management Services

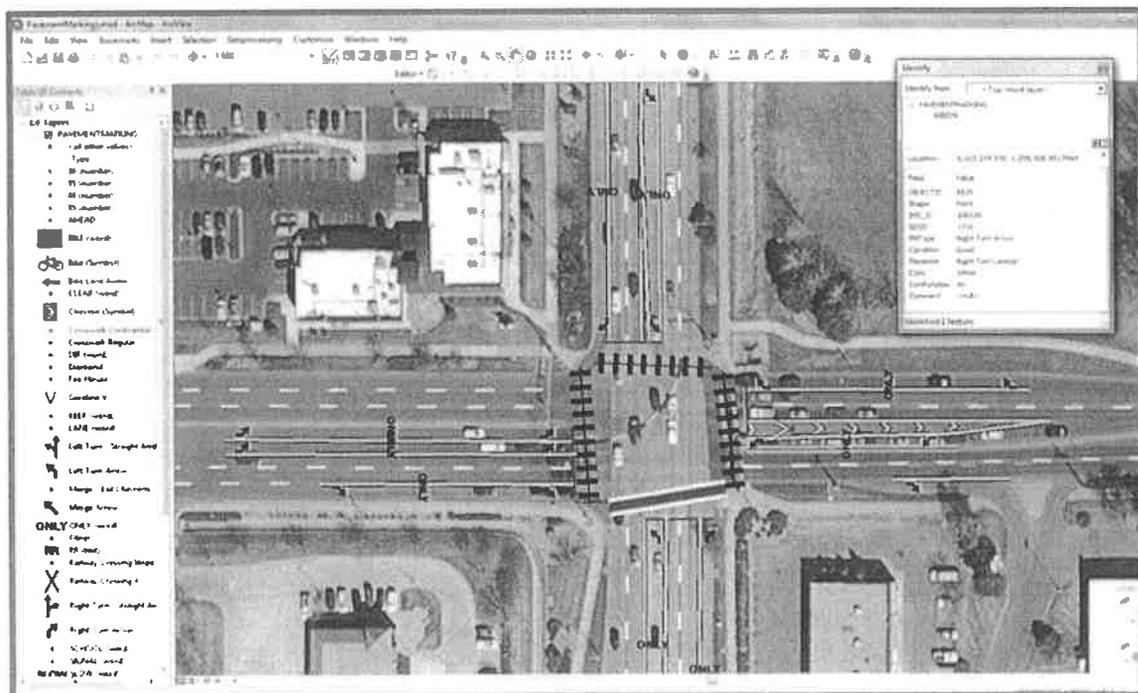
### Right of Way Asset Inventory Development

The IMS Laser RST uses high-end GPS coordinate data and digital cameras positioned so that all assets/attributes requiring data capture are visible with the front, side, and rear cameras. IMS has the capability to identify right-of-way assets such as sidewalks, ADA ramps, traffic signs, curbs & gutters, pavement markings, traffic signals, cabinets, fire hydrants, street lights, and many other assets for location verification and condition assessment. *The asset inventories are supplemented with air photos and GIS to ensure positional accuracy.*

The images and GPS data are merged on a frame-by-frame basis. The images are then post-processed using a specialty piece of GIS and roadway image viewing software. Using RST imagery, the existing centerline GIS, and aerial photography, IMS spatially plots each right-of-way asset in its real world location.

The IMS technology is an open architecture system that allows virtually any type of asset to be defined for collection of location, attribute, and condition data. Once an asset is observed, the operator toggles to the individual record input screen and proceeds to input the appropriate attribute and associated information. Wherever possible, "pick lists" are employed to streamline the data entry function and provide uniform, high quality data. IMS confirms the feature attributes to be collected with the client prior to data collection.

Prior to commencing the asset inventory, a document called the **Master Asset List (MAL)** will be developed, using each applicable exhibit as a starting point. The MAL defines what assets or inventory items are to be logged and what attributes will be extracted. The MAL also defines the methodology for condition rating each asset. Essentially the Master Asset List is the direct equivalent of a "data dictionary" as it sets the rules for right-of-way asset data collection. The image below depicts an IMS asset inventory of pavement striping and markings, traffic markings, and crosswalks.



**City of Las Cruces  
2016 Pavement Management Services**

**Sidewalk and ADA Ramp Surveys**

A comprehensive sidewalk and ADA ramp survey can be conducted using the following methodology:

**Proposed Survey** – After completion of a detailed sidewalk and ADA ramp inventory utilizing RST imagery, IMS can then mobilize the Sidewalk Surface Tester (SST) to perform a detailed manual assessment of the sidewalks and ADA ramps that received a substandard category rating such as poor or very poor. The onsite field assessment can locate faults and can be utilized to physically measure ADA Ramp slopes. *While IMS has proposed the SST survey on the sites that fail the visual inspection from RST imagery, the City could choose to complete SST testing on the entire sidewalk network if desired.*



Also, one camera can be mounted on the Sidewalk Surface Tester to acquire sidewalk video throughout the City's walkway network. The video is then post-processed and a comprehensive inventory/assessment is developed using the SST video, GIS technology, and City aerial photography (if available). The end deliverable is a geodatabase containing the sidewalk line work and attributes, in addition to the ADA ramp point features and attributes. The data will be delivered in an Excel spreadsheet to the City of Las Cruces. Please note that the data can also be loaded to the City's asset management system.

The SST is a purpose built field data collection unit designed primarily for surveying municipal sidewalks, rights of way and parking lots. The SST is equipped with the following:

- Front and rear strobe lights and safety signage, plus a fire extinguisher, air pump and tool kit.
- E-Prance HD Camera with remote on/off.
- Toughbook computer complete with touch screen and GPS.
- Tilt and grade meters, fault meter (adjustable between 3/4" to 1 1/2" faults).
- 6" and 24" digital levels plus a 32" obstruction baton.
- On-board 450W power inverter for cell phones, notebook, HD camera and radio.
- Tow vehicle and trailer.

The SST employs the NOMAD data collection software that integrates the survey inventory (GIS), field maps, GPS and field data collection into a single platform. NOMAD may be customized for virtually any type of survey ranging from sidewalks, ADA ramps, parking lots (following ASTM D6433) to full sign surveys. The unit may be staffed by one or two field technicians depending on the complexity and size of the project. The SST is equipped with tilt and grade meters, fault meter (the red wheel slung below the SST), safety signage and lights, computer (NOMAD survey application and map), GPS and HD camera. The SST is able to climb 8" curbs with ease.



**City of Las Cruces  
2016 Pavement Management Services**

**Proposed Budget**

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

Task	Activity	Quant	Units	Unit Rate	Total
<b>Project Initiation</b>					
1	Project Initiation	1	LS	\$3,000.00	\$3,000.00
2	Network Referencing and GIS Linkage	616	MI	\$25.00	\$15,400.00
3	Distress Protocol Update and Review	1	LS	\$500.00	\$500.00
<b>Field Surveys</b>					
4	RST Mobilization/Calibration	1	LS	\$3,500.00	\$3,500.00
5	RST Field Data Collection	616	MI	\$110.00	\$67,760.00
6	Deflection Mobilization/Calibration	1	LS	\$2,500.00	\$2,500.00
7	Deflection Testing	260	MI	\$130.00	\$33,800.00
<b>Data Management</b>					
8	Collection of digital images (at 25 foot intervals)	616	MI	\$14.00	\$8,624.00
9	Data QA/QC, Processing, Format	616	MI	\$20.00	\$12,320.00
10	Pavement Analysis, Budget Development, & Report	1	LS	\$10,500.00	\$10,500.00
11	Lucity Data Load	1	LS	\$6,850.00	\$6,850.00
12	Project Management	1	LS	\$12,029.00	\$12,029.00
13	Recurring Client Discount	1	LS	(\$8,450.00)	(\$8,450.00)

**Data Collection Total:**

**\$168,333.00**

**Lucity Installation and Implementation**

14	Lucity Software Supply				Already Retained by City
15	Onsite Implementation and Software Training (if necessary)	1	LS	\$8,867.00	\$8,867.00
16	ROW Asset Data Load	1	EA	\$2,500.00	\$2,500.00

**Optional Service Items and Activities**

17	City Council Presentation	1	LS	\$3,500.00	\$3,500.00
18	Collection of crossfall, radius of curvature, and grade	616	MI	\$15.00	\$9,240.00
19	Right of way asset data collection (GPS and Images)	616	MI	\$15.00	\$9,240.00
	a. Sidewalk database development	616	MI	\$55.00	\$33,880.00
	b. Curb & gutter database development	616	MI	\$50.00	\$30,800.00
	c. Sign database development	616	MI	\$90.00	\$55,440.00
	d. ADA Ramp & Compliance Survey	616	MI	\$60.00	\$36,960.00
	e. Traffic Signal database development	616	MI	\$40.00	\$24,640.00
	f. Cabinet database development	616	MI	\$25.00	\$15,400.00
	g. Fire Hydrant database development	616	MI	\$40.00	\$24,640.00
	h. Street Light database development	616	MI	\$50.00	\$30,800.00
	i. Pavement Striping/Marking database development	616	MI	\$60.00	\$36,960.00

**Enhanced SST Sidewalk and ADA Ramp Survey**  
(Requires completion of task 19a and 19d)

20	FOG Survey of Failed Condition Validations	616	MI	\$165.00	\$101,640.00
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**City of Las Cruces**  
**2016 Pavement Management Services**

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When the City upgrades to the most current version of Lucity, it will be rolled over to the new "Named Products" License Model. This model will give the City two seats and access to all pavement and Right-of-Way asset modules. This is depicted in the budget as Task 12, Lucity Software Supply. Further information on the new model can be acquired by contacting Chris Crupi with Lucity. He can be reached by phone at (480) 634-4285 or by e-mail at [ccrupi@lucity.com](mailto:ccrupi@lucity.com).

Thank you for considering IMS as a viable solution to your pavement management needs and we will strive to remain an asset and extension of the City of Las Cruces staff and team. If any questions arise please do not hesitate to contact me at (480) 839-4347 or [jtourek@ims-rst.com](mailto:jtourek@ims-rst.com).

Regards,

**IMS Infrastructure Management Services, LLC**



Jim Tourek  
Client Services Manager



# City of Las Cruces®

## PURCHASING SECTION SOLE SOURCE DETERMINATION

### ACKNOWLEDGEMENT

I am aware of the City's requirements for purchasing all items via competitive procurement plus criteria for justifying a sole source procurement. I have obtained and assessed necessary technical information and have made a concerted effort to consider and review equipment/services from alternate sources. I have attached pertinent and relevant documentation supporting this effort and from which a sole source determination may be based.

Request By: Louis Grijalva, Project Development Administrator

*(Note: The person requesting a sole source determination should be an expert and capable of supporting this request)*

Signed: \_\_\_\_\_

Date: 2-3-2016

Related MUNIS Requisition Number: TBD per resolution No. 15-16-145

### Recommendation:

Company Name: Infrastructure Management Services  
 Contact Name: Zac Thomason  
 Address: 1820 W. Drake Drive Suite 108  
 City, State, Zip: Tempe, AZ 85283-4312  
 Telephone: (480) 839-4347  
 Fax Number: (480) 839-4348  
 Email: zthomason@ims-rst.com

Description of Product/Service: <u>Survey of City infrastructure</u>	Estimated Cost: <u>\$592,840 w/o tax</u>
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**SOLE SOURCE RATIONALE**

*(Note: Avoid general or vague understandings and/or unsupported conclusions)*

A. If the purchase is a tangible product:

1. Is it sold exclusively by the manufacturer?

Yes  No

If Yes, explain how you arrived at this conclusion:

2. Is it sold exclusively through a single distributor?

Yes  No

If Yes, explain how you arrived at this conclusion:

3. Is the product sold through multiple distributors who are restricted to exclusive marketing territories:

Yes  No

If Yes, explain how you arrived at this conclusion:

4. Are there similar products to the product from the recommended company?

Yes  No

If No, explain how you arrived at this conclusion:

5. Is a similar product obtainable from other sources?

Yes  No

If No, explain fully how you arrived at this conclusion:

6. Would a similar product from an alternate source meet the City's requirements?

Yes  No

If No, explain how you arrived at this conclusion:

B. If the purchase is for or includes services or software:

1. Are similar services or software obtainable from other sources?

Yes  No

If No, explain fully how you arrived at this conclusion:

2. Would similar services or software from alternate sources meet the City's requirements?

Yes  No

If No, explain how you arrived at this conclusion:

C. Is there substantial duplication of costs by contracting with any other source that would not be recovered through a competitive procurement?

Yes  No

If Yes, explain fully how much cost and how you arrived at this conclusion:

The City of Las Cruces currently uses data collected by Infrastructure Management Services (IMS) to manage roadway conditions. The data collected is used in conjunction with software (ArcGIS and Lucity) the City has already purchased and staff trained for use. Using another service provider may require that we acquire new software and work through the compatibility issues between the two different data sets. This would cause duplication of previous staff training, time loss and higher associated costs to the City.

D. Would contracting with any other source force an unacceptable delay in meeting the City's requirements?

Yes  No

If Yes, explain fully the City's requirements and how you arrived at this conclusion:

The Capital Improvement Project reconstruction list for the next 5 years uses the collected data for prioritization of projects. The collected data will update our existing roadway condition database which is used to create the upcoming fiscal year pavement preservation projects. Thorough coordination between Joint Utilities, the Transportation, and Public Works departments would also be delayed until the data collection is completed.

**DETERMINATION (to be completed by the Purchasing Section):**

Based upon the information and support provided in justifying this request for sole source procurement, a sole source determination is hereby

APPROVED  NOT APPROVED

for the following reason(s):

If a determination for sole source procurement is hereby approved, negotiation with the selected source should be attempted and documented. Documentation includes terms/conditions/price offered prior to and after negotiation.

This determination shall remain effective until such time that the reasons for this determination stated herein no longer apply.

Signed: \_\_\_\_\_

*Deb Smith*

Date: \_\_\_\_\_

*2-3-16*