

# CITY OF TUCSON

## REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL NUMBER: 110178  
PROPOSAL DUE DATE: APRIL 4, 2011, AT 4:00 P.M. LOCAL AZ TIME  
PROPOSAL SUBMITTAL LOCATION: DEPARTMENT OF PROCUREMENT  
255 W. ALAMEDA, 6<sup>TH</sup> FLOOR, TUCSON, AZ 85701

MATERIAL OR SERVICE: PAVEMENT SURVEY AND DATA COLLECTION  
VEHICLE

PRE-PROPOSAL CONFERENCE DATE: MARCH 21, 2011  
TIME: 1:00 P.M., LOCAL AZ TIME  
LOCATION: CITY HALL, ATTORNEY'S CONFERENCE ROOM  
255 W. ALAMEDA, 7<sup>TH</sup> FLOOR, TUCSON, AZ

CONTRACT OFFICER: VICTORIA CORTINAS, C.P.M., CPPB  
TELEPHONE NUMBER: (520) 837-4140  
Victoria.Cortinas@tucsonaz.gov

Interested offerors may obtain a copy of this complete solicitation by calling (520) 791-4217. A copy of this solicitation and possible future amendments may also be obtained from our Internet site at: <http://www.tucsonprocurement.com/> by selecting the Bid Opportunities link and the associated solicitation number.

Competitive sealed proposals for the specified material or service shall be received by the Department of Procurement, 255 W. Alameda, 6th Floor, Tucson, Arizona 85701, until the date and time cited.

Proposals must be in the actual possession of the Department of Procurement at the location indicated, on or prior to the exact date and time indicated above. Late proposals shall not be considered. The prevailing clock shall be the City Department of Procurement clock.

Proposals must be submitted in a sealed envelope. The Request for Proposal number and the offeror's name and address should be clearly indicated **on the outside** of the envelope. All proposals must be completed in ink or typewritten. Questions must be addressed to the Contract Officer listed above.

### \*\*\*\*NOTICE\*\*\*\*

Effective July 1, 2009, the City will no longer mail Notices of available solicitations via the U.S. Postal Service. Email notifications will be provided to those vendors that have updated their vendor record and selected email as their preferred delivery method. For information on how to update your vendor record, please visit [www.tucsonprocurement.com](http://www.tucsonprocurement.com), click on What's New? and read the section titled "Notice of Solicitations." You may also call (520) 791-4217 if you have questions.

VC/sd

PUBLISH DATE: MARCH 3, 2011

## INTRODUCTION

The City of Tucson, herein referred to as COT, is requesting proposals from qualified firms for the purchase of a **Pavement Survey and Data Collection Vehicle** with tightly integrated subsystems that is capable of efficiently, accurately, and synchronously collecting a variety of data and geo-referenced imagery for videolog and roadway infrastructure for the COT Pavement Management System (PMS) division of Tucson Department of Transportation.

Offerors shall provide a comprehensive solution that meets or exceeds all requirements as stated herein. The proposed application and solution shall be fully compatible within the current COT environment, as specified. If any incompatibility exists between the Offeror's solution and COT's operating environment, the contractor shall clearly identify those discrepancies and provide a proposed resolution.

**Federal Funding Requirements:** This project is funded by the U.S. Department of Transportation, Federal Highway Administration (FHWA) and are subject the FTA terms and conditions in Attachment A. **These terms and conditions cannot be modified or negotiated.** By submitting a proposal, Offeror must agree to abide by the FTA terms and conditions included. Offeror's must submit all required certificates with their proposal submittal. Failure to do so may result in rejection of proposal.

## BACKGROUND

The PMS program in Tucson was established in 1994 as part of a requirement of the Intermodal Surface Transportation Efficiency Act (ISTEA). The Federal Highway Administration (FHWA) provided (and continues to make available) funding from Surface Transportation Planning (STP) and Transportation Efficiency Act of the 21<sup>st</sup> Century (TEA21C) grant monies.

To meet the program's requirements for both the Highway Performance Monitoring System (HPMS) and the National Highway System (NHS), PMS works in conjunction with the COT and the participating agencies of the Pima Associations of Governments (PAG). By assessing and inventorying all publicly owned roadway for the City of Tucson and surrounding region, Pavement Management System furnishes invaluable pavement data. This data includes International Roughness Index (IRI), rutting, roll, crossfall, roadway imagery, Global Positioning System (GPS) data, and Pavement Surface Evaluation and Rating (PASER) modified windshield surveys. This information empowers the various regional entities to intelligently and effectively evaluate roadway deterioration rates, determine far-sighted roadway maintenance strategies, and facilitates planning for resource allocation. Moreover, it supplies the substantiation for the regions to apply for federal aid funding. As a result, the ARAN van (and the PMS unit) furnishes the means to maintain optimal levels of roadway performance, resulting in extended pavement life cycles.

## TENTATIVE SCHEDULE OF EVENTS

To the extent achievable, the following schedule shall govern the review, evaluation and award of the contract. The dates are estimates only and the City reserves the right to modify the dates below as necessary.

Activity	Estimated Finish Date of Activity
RFP Published	March 3, 2011
Pre-proposal conference	March 21, 2011
Proposal due date	April 4, 2011
Review of Proposals by Evaluation Committee and Reference Checks	April 5 – May 18, 2011
Vendor Interview / Demonstration	April 27 – 29, 2011
Evaluation Committee's recommendation	May 18, 2011
Final negotiation completed	April 25 – 29, 2011
Contract award & issuance of purchase order	June 17, 2011

## **SCOPE OF WORK**

The intent of the Scope of Work is to describe the minimum requirements of the mobile videolog Pavement Survey and Data Collection Vehicle and ancillary equipment to collect accurate and reliable data and geo-referenced imagery for roadway management. The aforementioned notwithstanding, the COT, however well versed in the functions and requirements of the pavement survey and data collection vehicle, do not consider ourselves the expert nor can we speak to the exact working of every technical and equipment requirement necessitated. It is the responsibility of the Offeror to ensure the vehicle will meet all safety regulations and operate as required.

This equipment will be used in elevations from near sea level to 10,000 feet and in ambient temperatures from 15 to 125 degrees F. The equipment must operate normally throughout this range of conditions. Additionally, because this is a mobile environment, equipment is subject to extreme vibration and must function well within this situation.

The equipment supplied shall conform to all applicable Occupational Safety and Health Administration (OSHA), Federal Motor Vehicle Safety Standards (FMVSS), and Environmental Protection Agency (EPA), Arizona Motor Vehicle Department (MVD) regulations and to all other industry standards in effect at the time of delivery.

The equipment supplied shall be a standard model of a manufacturer with experience in the production of roadway data collection and videolog vehicles equipped as necessary to meet the requirements. Each unit shall include all specified accessories, parts, equipment and options that are listed in the manufacturer's specifications as standard equipment for the specific model, unless otherwise required.

All dimensions, weights, wire or metal gauges, or other factors expressed numerically are to be considered as nominal requirements (+ or – 10%) unless indicated otherwise by the words "Minimum", "Maximum", or "Exactly".

Data collection / measurement equipment shall be installed in the vehicle at the Contractor's facility, although some adjustment or tuning may be necessary on delivery; analysis software not included in the vehicle shall be installed on-site at the COT Street Maintenance office.

### **I. TECHNICAL REQUIREMENTS – Functions, Features and Technical Specifications**

#### **A. Pavement Survey and Data Collection Requirements**

This pavement survey and data collection vehicle must include the installation of all hardware subsystems, survey video systems, software and applicable licensing, training of staff, documentation, technical support, as well as maintenance and warranty agreements. Additionally, the Contractor will be responsible for furnishing and installing new data analysis software for an office computer. System must use the COT's existing PMS management philosophy.

To fulfill PMS government regulations, Offerors must include the hardware and software required for the following functions, including but not limited to:

#### Pavement Management

- Longitudinal profile and roughness (International Roughness Index or IRI)
- Transverse profile and rutting
- Surface macro texture
- Surface distress (cracking, potholes) rating that is custom rated according to protocol
- Custom formatted for upload into Cartegraph (Pavement Management System)
- Joint faulting for Portland Cement Concrete

#### Digital Videolog

System will produce a digital videolog of streets surveyed  
Driver's view, 1920 x 1080 High Definition Television (HDTV) pixel resolution  
Nominal image capture interval of 1/500<sup>th</sup> of a mile

#### Mobile Mapping

Position Orientation System Land Vehicle (POS LV) with real-time processing solutions with a minimum of sub-meter accuracy

#### Road Geometry

Longitudinal grade  
Horizontal cross slope/super elevation of curves  
Degree of curvature  
Radius of curvature  
Curve start/end coordinates  
Federal Highway Administration (FHWA) curve classification reporting  
Edge drop-off

#### Asset Management

Complete roadside asset inventories  
Inventories that contain type, location Global Positioning System (GPS) and linear, condition, measurements, unique identifiers, etc.  
Data outputs formatted for import into an ESRI compatible Geographical Information System (GIS) or Asset Management software environment

### **B. Vehicle Requirements**

Vehicle will be equipped for a two-person operation, with all required computers, monitors, data storage equipment, keyboards, mounting hardware, etc. It shall comply with all federal, state, and local standards and regulations.

Current model year cargo van with customized chassis, turbocharged diesel engine and five speed automatic transmission, Fugro Automatic Road Analyzer (ARAN) 9000 Series, or equal.

To be considered a complete vehicle, vehicle shall be completely assembled, serviced, and adjusted. All standard and optional equipment shall be installed and ready for continuous operation when delivered. The vehicle shall be delivered with a full tank of fuel. If the odometer reading exceeds 1,000 miles, engine oil, oil filter, and air filter will be changed by vendor.

The minimum required features (standard and/or upgrades) shall include, but not limit to, the following:

#### General:

- Van should have an interior height of at least 72 inches
- Overall exterior height should be no more than 132 inches
- Wheelbase: 144 in. (3665 mm) or as required for completed vehicle as designed

#### Bumpers:

- Standard front bumper
- Heavy duty rear step bumper

#### Color:

- Clear coat white

#### Windows/Glass:

- Arizona state legal window tinting on left and right front and side windows (except for turret which houses the camera)
- Side windows in middle cargo section of van with 'limousine' tinted windows
- Solid rear doors, no rear door windows

Doors: Cargo center area to have passenger side sliding or double doors

**Mirrors:**

- Dual outside, power adjust, approximately 6" x 9" mounted below eye level
- Manufacturer's optional foldaway mirrors, high visibility
- State outside mirror size

**Lighting and Reflectors:**

- Vehicle lighting shall meet all Federal and State requirements
- Dome lamp for all sections: front cabin area, middle (cargo) area, and rear section
- Roof top mounted light bar

**Insulation:**

- under hood, under floor, cab, and firewall noise and heat reduction insulation

**Running Boards**

- provided on both driver's and passenger sides

**Decals:**

- Display no decals or markings pertaining to advertisement other than the vehicle manufacturer's name or model designation normally installed by the manufacturer on equipment

**Interior**

**Air conditioning:**

- Dual front and rear, factory installed
- Roof mounted 120 volt air conditioning unit with heating element capable of heating and cooling interior space
- Roof to be supported for extra weight
- State make, model, and BTU of unit

Heater and Defroster: Factory installed

Floor Covering: Heavy duty rubber or vinyl mat throughout van with carpet floor mats that cover the traffic areas

Radio: Manufacturer's standard AM/FM Radio/CD/Mp3 player with speakers

**Seats:**

- Driver's six way power and passenger standard bucket (including armrests, and head rests) or "Captain" chairs. No exceptions
- Back chair that swivels mounted in center of cargo area behind driver's and passenger's seats (where a bench seat would normally go) that is easily removable and lockable in forward position while traveling and designed to withstand impact.
- No electronic adjustment controls for seat to allow for easy removal

Upholstery:

- Standard cloth upholstery with vinyl trim
- Light color. Gray suggested; black unacceptable
- Left and right sun visors
- Dash mat for front dashboard

Safety:

- Driver's and passenger front air bags
- Intermittent wipers and washers
- Three point seatbelts on all seats
- Fire extinguishers:
  - 3A-40BC dry chemical, mounted and appropriately sized with proper signage. Federal Motor Vehicle Safety Standards (FMVSS) approved. Exact mounting position to be determined at pre-build.
  - Carbon Dioxide, UL Rating 5-B: C, Size 5 Lb., Cylinder Material Aluminum, mounted with proper signage and appropriately sized. Federal Motor Vehicle Safety Standards (FMVSS) approved. Exact mounting position to be determined at pre-build.

Instrumentation:

- Fuel gauge
- Engine oil pressure gauge
- Voltmeter/ammeter gauge
- Engine coolant temperature gauge
- Transmission oil temperature
- Tachometer

Power Accessories:

- Factory installed power windows
- Factory installed power door locks
- Remote keyless entry – ignition disable not desired
- Factory installed cruise control with tilt wheel
- Factory installed 12vdc power port/cigarette lighter

Glove compartment:

- locking

Parking Sensors: Mercedes Benz Parktronic or equal with audio and visual warnings.

PC racking:

- Industrial and anti-vibration

Fold out table (like a tray table on an airplane but larger for map use, etc.)

- Exact location in middle cargo area to be determined at pre-build.

Cabinet or streamlined storage unit (that doesn't take up a lot of space) for items such as maps, documents, pens, etc.

Keys

- Five sets

**Functional**

Brakes:

- Power-assisted front and rear disc
- Four wheel ABS
- Option: Adaptive electronic stability / traction control

Engine:

- 3.0 liter minimum displacement turbo charged diesel engine with electronic fuel injection. Rated at 153 HP and 280 lb-ft of torque min.
- 5-speed automatic transmission with overdrive and tow/haul mode
- State engine model and specifications

Engine cooling system:

- Manufacturer's maximum cooling system, designed to meet the cooling requirements of the engine offered with the truck and air conditioning, while operating at full capacity in a stationary mode and when fully loaded in city and highway traffic

Fuel tank

- 25 gallon

Suspension:

- Tapered multi-leaf springs front and rear or approved equal
- Heavy duty gas charged shock absorbers
- Front and rear stabilizer bars
- Suspension – heavy duty front and rear stabilizer

Gross Vehicle Weight Rating (GVWR): 8,550 lbs. (3,878 kg) capacity or as required for application.

Transmission:

- 5- speed electronically-controlled automatic
- External transmission oil cooler

Steering:

- Power steering
- Steering column tilt

Axle ratio: 4.10 or as recommended by builder

Tires and wheels, etc.:

- Premium brand with highway style tread or approved equal
- Standard steel wheels or better
- Full size spare tire and rim same as other tires
- State size and rating
- Anti-sail mud flaps to cover full width of rear tires, with lower edge no higher than 8" from road surface, meeting D.O.T. current requirements

Alternator: largest amperage available (minimum 180)

Dual batteries: largest Cold Cranking Amps (CCA) capacity available (minimum 100)

- Battery master switch

Grill or protective 'brush guard' type unit to protect the rut bar

## Electrical

### Generator

- 125VAC commercial quiet diesel, must include critical silencer for exhaust.
- Generator shall be mounted on a heavy duty slide out steel tray for easy access for maintenance
- Compartment to be properly ventilated to meet generator manufacturer's specification for air flow and to be lined with an approved acoustical barrier
- Fuel supply to be from main vehicle fuel tank with separate pick-up tube position to prevent draining the main tank
- Local and remote (inside) control panel with start/stop switch, hour meter and battery condition meter is to be provided
- All wiring shall conform to applicable safety codes and standards
- 120 volt system sized to exceed vehicle load
- All 120 volt circuits will be GFIC protected
- Circuit breaker panel and wiring will meet National Electric Code(NEC) Pre-wired for generator
- On-board power source (generator and inverter)
- Electric charging system adequate to operate the PMS equipment and vehicle accessories at idle
- Lights – courtesy
- Lights – motion sensor, cargo compartment
- Light bar mounted either on the roof or on the back of the LCMS enclosure. Light bar shall be Code 3 LED with amber lights visible to 500 feet, part of the 12 VDC power system.
- Factory installed alarm system with remote control locking and unlocking. Must have the ability of detecting entry as well as motion. Alarm system should also disable the engine while engaged.
- Electronic back up alarm system – 110 dB weatherproof and steam-cleanable

Shore power: van to be wired for shore power with 50 feet of suitable power cord

### Converter/Battery Charger

- One (1) 120V/12V converter/charger with "smart charge" technology to allow long term float charging without overcharging

## C. Technical Computer Equipment Requirements

### Basic Equipment and Services

#### Design Features

- Automated "Wizards" for complicated functions such as calibrations
- Integrated context-sensitive help
- Integrated map-based "mission management" that allows for efficient data collection and pre-trip route planning
- Relational database structure that reduces effort required to assemble and merge data at the completion of field work
- Processor-efficient design that reduces the number of computers required, which reduces failure, heat generation and power consumption
- Positive locking mechanisms on electrical connections to reduce poor signal transmittal caused by heavy vibrations
- Anti-vibration industrial equipment racks and hard drive brackets to guard against data loss
- Systems must have the ability to store data on removable hard drives for storage on servers for end-of-day processing and archiving

#### Components of collection vehicle

- Distance Measuring Instrument (DMI) optical encoder that complies with American Society for Testing Materials (ASTM) E950 requirements and is mounted on the driver's side rear wheel. Accurately records the greater of  $\pm 4$  in. or 0.02% distance measured of the distance traveled by the vehicle.



Data Acquisition Server (DAS) with the following components:

- Industrial Pentium hard disk drive
- Hard drives to be a minimum of 10,000 rpm and sized suitably for a complete 12 hour data collection operation without having to change hard drives
- LCD Panel (1280 x 1024) 17" or greater front monitor
- 20" or greater HDTV LCD Panel (1920 x 1080) rear monitor
- Vibration resistant, able to withstand the required tolerances for vibration, shock and acceleration
- Functions under temperature, dust and humidity environment expected within the vehicle
- Operating system to utilize a minimum of Redundant Array of Independent Disks (RAID-1 – or disk mirroring) hard drive configuration, implemented in hardware (as opposed to software based RAID)
- Data to be stored on removable hard drives in a RAID-1 hard drive configuration implemented in hardware (as opposed to software based RAID), with a disk cache back up battery system
- Provide system back up

Computing Specifications

- 64 bit operating system preferred
- 8 GB RAM minimum with capability for expansion without replacing existing RAM
- Dual 1 TB hard drives and swappable hard drive bays
- Transfer of data from either hard drive to office workstation must be possible
- 16 x CD/DVD RW drive with double layer write capacity
- Minimum of one 1,000 GB Ethernet port
- Easily accessible USB2 port essential
- Wireless keyboard and mice with scroll wheels

System Software

- Operating system: Microsoft Windows 2008 server (preferred) or Red Hat Linux 5
- Database platform: Microsoft SQL Server 2008
- Office applications: Microsoft Office 2007 Professional or equivalent
- COT will provide and install anti-virus and other management software but vendor will assist in resolving all problems related to incompatibilities related to vendor's proprietary software. Examples of software include <http://www.symantec.com/business/protection-suite-enterprise-edition> and <http://www.bigfix.com/>

Collection Software

- Software that provides GUI for all system calibration and diagnostic tests, including data collection operations
- Command line functionality for software scripting purposes
- Software must be customizable to allow changes and/or incorporate new fields
- The ability to enter user-definable parameters such as filters as well as collection and reporting intervals (in both imperial or metric)
- The ability to tag roadway collection events such as bridge crossings and pavement condition through the use of provided customizable (programmable) keyboards
- The monitoring and verification of collected subsystem data against user specified ranges to establish out-of-range or non-changing measurements and to ensure proper functioning
- The ability to perform comprehensive diagnostics to aid in the isolation of sensor and other system hardware malfunctions
- The ability to monitor vehicle speed and to notify the operator when traveling speed is outside of operating range
- The ability to monitor the status of disk space utilization and to notify the operator when new media is required (disk approaching capacity)

- Real-time graphical display of summary and detail data
- Map based mission management

Communications: The data collection systems within the ARAN vehicle shall communicate with the COT's wireless mesh network - the Regional Transportation Data Network (RTDN) (<http://azrtdn.net/>). Ideally, data will be securely transmitted during data acquisition operations to a remote storage server system in near real-time. However, if not possible, the collected data shall be securely downloaded via the RTDN to a remote storage server system. The selected vendor will have to utilize the services of the COT's existing vendor, Smartwave, and Creative Communications as a subcontractor, to set up and program a Tropos 4210 router and related wireless communication devices. The network communications shall also provide a live, broad-band Internet connection to the operator's consoles when the system is powered on.

Network environment:

- Physical cabling: UTP, category 5 or better (EIA/TIA 568)
- Network protocol(s): Exclusively TCP/IP
- Local Area Network (LAN) architecture: Ethernet: minimum 1000 Mb/s full duplex, switched star topology
- Wide Area Network (WAN): Wireless services to be compatible with COT's system

Data Review

Ability to review collected data and video images in the vehicle as well as the office, Fugro Roadware's "View" software or equal.

Operator's Console (workstations)

- Front seat passenger and middle cargo section console
- Ergonomic flat screen LCD monitors, wireless mice and keyboards

**Subsystems**

Laser South Dakota Profiler (LSDP) or equivalent

Non-contact inertial profiler system must provide longitudinal profile measurement, faulting, and calculate International Roughness Index (IRI), meeting industry standard for said devices. Must use 3kHz RoLine lasers and accelerometers that mount over each wheel path to determine pavement profile and IRI in real-time. The Laser SDP must meet the following industry standard requirements for longitudinal profiling devices:

- Laser SDP (or equivalent) software must calculate a Ride Number (RN) in compliance with the ASTM E1489-96 protocol
- Laser SDP software must calculate International Roughness Index (IRI) in compliance with World Bank Technical Paper # 46 protocol
- The Laser SDP must meet the definition of a Class 1 profiler (ASTM E950-94 Class 1)
- The Laser SDP must meet the definition of FHWA Class II profiler as defined in the HPMS (Highway Performance Monitoring System) Field Manual (2010)

The Laser SDP subsystem must also include and/or feature the following items:

- Flexible Collection Speeds –Ability to collect accurate longitudinal profile and roughness data at collection speeds ranging from 12.5 mph to 68 mph without loss of accuracy and to reduce drop-outs while maintaining a bias of 5%
- Must have high accuracy (+/- 5%), comparable to measurements made by manual profiling techniques such as rod and level
- The Standard deviation for repeat runs for the Laser SDP must be within +/- 5% of the mean IRI for each run

- Through post-processing, must have the ability to calculate IRI in real-time, as well as HRI, "half-car model"
- Using a "bounce test," must have the ability to perform calibration of longitudinal profiling lasers and be able to check operation of accelerometers
- The ability to measure joint faulting with a vertical accuracy of +/- 1 mm on Portland cement concrete pavements
- Must eliminate all elevation "noise" due to surface macrotexture (apply a moving average filter to height readings)

#### Office Computer

- Industrial computer processing unit (CPU)
- Microsoft Windows 7 Professional fully licensed operating system
- Microsoft Office 2010 Professional, fully licensed and installed
- Dual 21" or greater HDTV LCD Panel (1600 or greater resolution) monitor
- Provide system back up
- Uninterruptible power supply (a minimum of ten minutes run time)
- Wireless keyboard and mouse

#### Computing Specifications

- 2.0 gigahertz (GHz) or greater 64 bit processor, either dual or multi-core
- 8 GB RAM minimum, expandable without removing existing RAM
- Dual 1 terabyte (TB) mirrored (RAID-1) hard drives for operating system
- Removable 'hot' swappable hard drive bays to accommodate hard drives from ARAN
- 16 x CD/DVD RW drive with double layer write capacity
- 512MB or greater video card
- Scan Disk (SD) card reader or 19-in-1 media card reader
- Wireless network card
- COT will provide and install anti-virus and other management software but vendor will assist in resolving all problems related to incompatibilities related to vendor's proprietary software. Examples of software include <http://www.symantec.com/business/protection-suite-enterprise-edition> and <http://www.bigfix.com/>
- Minimum of two USB 2.0 ports
- Minimum of one 1,000 GB Ethernet port

#### Videolog

- Dedicated on board high end industrial computer for image capture and storage with hard drive bays to accommodate two removable drives
- Back up of all images
- User defined image capture interval at a minimum of 1/500 of a mile or greater
- Digital video capture software license
- HDTV complete subsystem
- One Sony or equivalent pan-view 90 degree **camera** that provides direct to digital image capture with 'smart' camera technology to compensate for changing lighting conditions
- Prosumer 1920-1080 pixel resolution with 16:9 aspect ratio. Still images that are produced from the camera system must be a minimum of 1280 x 1024 pixels in size.
- Camera system must provide full 30 frames per second
- Ability to capture the video as individual frames (pictures)
- Ad hoc capture of a GPS coordinate and related photograph at any point during the logging session. Van operator must be capable of initiating the capture of a GPS coordinate and related photograph at any point. This must be achieved via a keystroke, mouse-click or similar method.

- System must save metadata and be fully GIS compatible with Environmental Systems Research Institute, Inc. (ESRI) ArcGIS version 10.0
- System must Interface with an IMU and a GPS to provide accurate coordinate data
- True color progressive scan images
- 3CCD ½" sensor
- Field of view to be 90 degrees
- 1/1000 of a second shutter speed
- Cameras must be calibrated and survey-ready
- Rear "web quality" camera with unobtrusively mounted monitor (such as an in-dash mounted)  
Camera:
  - Rugged waterproof die cast aluminum housing
  - Built-in LED's enhance low light performance (0-lux)
  - Wide (150-degree) viewing angle
  - Stainless steel hardwareMonitor:
  - 7" Wide format, heavy duty color LCD panel
  - Energy efficient white LED backlight
  - Aspect ratio: 16:9
  - Contrast ratio: 300:1
  - Brightness: 500 NIT
  - View angles (V/H): 100/120
  - Anti-glare/anti-scratch protective lens
  - NTSC and PAL video signal compatible
  - Auto power on (standby)
  - Auto day/night brightness modes
  - On screen display (OSD) for picture adjustment
  - Non-volatile memory for picture adjustment settings
  - Removable sun-visor included
  - Multiple mounting options (AMPS compatible)
- Front camera mounted in climate controlled turret above passenger cab (preferred)
- Front mounted camera captures an unobstructed driver's view and right of way view (90 degrees)
- Imaging system triggered according to distance traveled as measured by the DMI for accurate geo-referencing of collected images
- Overlay identifiers can be placed on images
- LAN-based videolog and data review software that is a user friendly platform for sharing ARAN video and data between departments is required

#### GPS

- Trimble AG332 Differential Global Positioning System (GPS) or better sub-meter accuracy. Twelve channel GPS dual frequency (L1/L2) antenna and receiver shall be capable of recording differentially corrected X, Y, and Z GPS data.
- Map-based mission management (**GPS** navigation system)
- Existing segment identification nomenclature will be incorporated into the new system
- System will be equipped with a GPS unit and will automatically associate GPS coordinates to Pavement Management System segments
- Three year subscription to real-time GPS differential correction service provider, such as OmniSTAR (or equivalent) with annual renewals
- OPTIONAL: less than three years subscription

Laser Crack Measuring System (LCMS) by INO/Pavemetrics (or equivalent)

- Automated distress analysis software to process collected imagery that automatically detects, classifies, and quantifies pavement cracking to Pavement Management System specifications that must work with the COT's Cartegraph software. Also must provide level of objectivity and precision, and be able to detect cracks within 1-2 millimeters in width (meets FHWA requirements and AASHTO PP44-01, "Quantifying Cracks and Asphalt Pavement Surface"). Reporting should be consistent with IRI inventory direction and lane.
- System must acquire 2D images as well as high-resolution 3D profiles of the road and obtain details of the road surface features. Must be operational in a broad range of conditions, especially all types of light (sun and shadows), be able to measure various types and coloring of pavement, and do so at survey speeds up to 60 mph on roads measuring at least four meters in width, WiseCrax or equal.
- LCMS must be able to operate between 15 – 125 degrees F, which may entail being mounted in a temperature-controlled environment. Vendor must work closely with successful bidder to come up with the proper specification if LCMS is mounted on the outside of the vehicle.
- Software to allow user to collect and transfer field surface distress data
- Collected images to be saved to mirrored removable hard drives

Position Orientation System for Land Vehicle 220 (POS LV) (or latest version)

System that utilizes inertial sensors to provide precise and robust positioning during GPS outages

Applanix Position Orientation System Mobile Mapping Suite (POSPac MMS 5.3) or equivalent post processing software

- POSPac modular software to analyze and blend raw GPS, IMU, DMI data with GPS correction coordinates in both forward and reverse directions from referenced stations
- Applanix or equivalent software to post process data
- Single seat license including two year non-optional maintenance agreement

Software

- Must furnish a visual data presentation program that offers playback of video images and associated sensor data (allows the location of pavement images and road network data to be visualized)
- The system provided shall be capable of simultaneous / multiple-user operation (multiple users in physically different locations can view the same data)
- Provide for multiple users and COT personnel to enter and manage data
- Software must be user friendly and provide a platform for videolog and data review, and provide the means for sharing that video and data. Must be 100% compatible with Windows OS platform
- In ArcGIS, users must have the ability to perform a virtual drive and view video or still images in a separate frame for asset collection purposes
- Software must have the ability to seamlessly zoom, pan, tilt and navigate within the video still images
- Must include all user licenses
- Database searching capabilities encompassing Structured Query Language (SQL) capability
- Multiple camera images with ability to display multiple windows synchronized with data. LCMS imagery can be displayed with forward view imagery
- Data processing program, i.e., "Swift" or "View" (data importer)
- Software used to collect GPS coordinates and asset information must be a turn-key system with minimal development changes
- Software should have the ability to extrapolate X,Y,Z coordinate data from frames and store them into a database along with customizable fields for other data to be collected
- Must provide and save metadata for all collected data that is fully GIS compatible with ESRI ArcGIS version 10.x

- Web based application for interoffice and remote location deployment of videolog information and images
- Software must integrate into COT's GIS system (ESRI environment)
- Video data must have the ability to easily be imported into an ArcGIS SDE database and an ArcGIS layer and viewed by staff
- Must be able to be accessed by multiple users
- Must provide an automated distress analysis function/software that processes collected LCMS imagery that automatically detects, classifies and quantifies pavement cracking
- Must be able to produce statistical reports whose data can be integrated into the COT's Cartegraph software (automatically populate roadway inspection fields to generate a Pavement Condition Index (PCI))
- Visible cracking distresses (transverse, longitudinal, macro-texture, and fatigue) must be located, identified, and their extents measured
- Must include software that allows for the location and measurement of assets in the right of way, such as Surveyor
- Images collected must be calibrated to perform asset extraction and measurement using calibrated, geo-referenced images
- Must be able to determine linear location and offset from the road
- Asset attributes must include type, position (linear GPS), basic condition, measurements, and a photo (videolog)
- Close range photogrammetry (geo-referenced imagery collected by the system for roadside asset inventory) capabilities
- Vendor/factory setup of camera systems and internal and external camera
- Vendor must assist COT personnel for survey calibration site setup

#### Kits

- Tool/repair kit – one for computer equipment and one for common vehicle repairs to allow minor repair/component change outs to be made in the field
- Spare parts kit to include four spare removable hard drives, fuses, relays, lamps and other field replaceable parts
- Calibration kit to include all necessary items to calibrate all data collection and video related features and functions
- Vendor shall specify contents of all kits

## II. GENERAL REQUIREMENTS

- A. Brand or Trade Names:** Any manufacturer's names, trade names, brand names or catalog numbers used in the solicitation are for the purpose of describing and/or establishing the quality, design and performance required. Any such reference is not intended to limit or restrict any bid/offer by any vendor, but is only listed in order to advise potential bidders/offerors of the requirements of the COT. Any bid/offer which proposes like quality, design or performance will be considered.
- B. Equals:** Bids/Offeres submitted as alternates, "equals" or on the basis of exceptions to specific conditions of purchases and/or required specifications, must be submitted with an attachment referencing the specific paragraph numbers and adequately defining the exception submitted. Detailed product or service literature, suitable for evaluation, must be submitted with the bid/offer. If no exceptions are taken, the COT will expect and require complete compliance with the specifications and conditions of purchase
- C. Current Products:** All products being offered in response to this solicitation shall be in current and ongoing production; shall be formally announced for general marketing purposes; shall be a model or

type currently functioning in a user (paying customer) environment and capable of meeting or exceeding all specifications and requirements set forth in this solicitation.

- D. Workmanship:** All workmanship and the installation of components shall be performed in a professional, uniform and effective manner. The COT will be the sole judge of the workmanship and quality of the product prior to acceptance of the equipment.
- E. Key Personnel:** It is essential that the Contractor provide adequate experienced personnel, capable of and devoted to the successful accomplishment of work to be performed under this Contract. The Contractor must agree to assign specific individuals to the key positions.

The Contractor agrees that, once assigned to work under this Contract, key personnel shall not be removed or replaced without written notice to and subsequent concurrence by the COT.

If key personnel are not available for work under this Contract for a continuous period exceeding thirty calendar days, or are expected to devote substantially less effort to the work than initially anticipated, the Contractor shall immediately notify the COT, and shall, subject to the concurrence of the COT, replace such personnel with personnel of substantially equal ability and qualifications.

- F. Reports:** Contractor shall furnish COT with WEEKLY progress reports confirming status of delivery dates as agreed upon. Reports shall be submitted to City of Tucson, Department of Transportation, PMS division. These reports shall consist of, but not limited to the following
- a. Copy of Contractor's order to the factory.
  - b. Copy of factory acknowledgment of order indicating scheduled date of production and shipment from factory.
  - c. Factory generated computer status reports.
  - d. Notification to the City of any changes in production or shipping dates.
  - e. Digital photos depicting the manufacturing process.
  - f. Copy of updated project schedule in the form of a bar code or Gantt chart. The project schedule shall illustrate the start and finish dates of all phases and activities to the project work breakdown structure.
  - g. Any special information the Contractor shall have that would affect the timely delivery of the vehicles ordered in accordance with original delivery date promise.

In lieu of written reports submitted to COT, the contractor may provide access to an Internet based on-line order tracking system. Any on-line system provided must provide the information required above. The contractor must provide all access codes necessary to view this information.

**G. Testing, Training, Annual Maintenance and Documentation**

**1. Testing**

- Vendor to provide post-testing calibration values for all data collection equipment upon delivery
- Vehicle data collection/measurement equipment testing shall be completed prior to vehicle delivery, although some adjustment or testing may be necessary on delivery; software installed on the Street Maintenance computers shall be thoroughly tested for function and compatibility.

**2. Training**

- The Contractor shall provide the City, at no additional cost, training, as describe herein. This training shall be adequate to the needs of the typical equipment operator and service technician in order to assure proper operation, utilization and maintenance of the equipment supplied. Any manuals necessary to perform the required training shall be

furnished by the Contractor. The trainer shall be factory-trained and thoroughly knowledgeable in equipment operator and service technician functions.

- Initial set-up and configuration - Vendor shall provide up to three (3) technical support staff capable of configuring van to operate respective to COT's needs.
- Initial Training - Vendor shall provide COT staff a minimum of 40 hours on-site hands-on training as to all nuances of the van's operations until such time as COT deems its staff fully capable of all operational requirements. Vendor shall provide up to three (3) training staff members.
- Instructors provided for the training sessions shall be qualified and knowledgeable of the Vendor's proposed solution
- The Vendor shall provide training and training materials that are comprehensive enough to provide administrative, technical and operational instruction in the use of the Vendor's solution
- Technical training shall be provided if COT system management is necessary
- The City shall retain all materials provided to the City for training purposes
- At no time shall training be scheduled without COT review and or approval of the training materials
- COT reserves the right to review the training materials for acceptability

**3. Annual Maintenance**

- Annual service shall include preventive maintenance that entails one full week of on site technical assistance for vehicle equipment and software upkeep and calibration provided by selected vendor's staff.

**4. Documentation**

- Service, owners, repair and parts manuals for chassis and coach to include all wiring diagrams as installed
- Two complete sets to be included at time of delivery
- Provide owners manuals on all appliances and specified equipment
- Contractor shall provide clear administrative and technical documentation of all aspects of the van's operations. This includes, but is not limited to, all purchased hardware, software and camera operational aspects.
- All documentation provided shall be in written and electronic form and shall be network-accessible. Contractor shall furnish all software manuals, flowcharts, printed tables, charts, and program listings in standard letter size three ring binders.
- The Software User Manual shall clearly outline all steps necessary to operate the software, include screen captures taken directly from the software to help illustrate the instructions, and contain a table of contents as well as a glossary of any software specific acronyms and terminology used in the manual.
- The Software Configuration Manual shall clearly outline all steps necessary to configure the software, include screen captures taken directly from the software to help illustrate the instructions, and contain a table of contents as well as a glossary of any software specific acronyms and terminology used in the manual.
- Provide four (4) sets of operating/maintenance manuals

**H. Delivery:** The following documents are due upon delivery of the completed vehicles to the City:

- a. Invoice
- b. MSO
- c. Warranty document
- d. Level 1 Inspection



e. Required manuals

Upon contract award, the Contractor will be required to supply a delivery ticket specifying the purchase order number of each vehicle.

Delivery to the City of Tucson: All deliveries shall be made Monday through Friday from 8:00 a.m. to 3:00 p.m. The Contractor shall be required to give the Operations/Fleet Services Department a minimum of 24-hour notification prior to delivery with the anticipated time of delivery and quantity of units to be delivered.

- I. Vehicle Inspection:** The City will assist the Contractor in arranging for inspection. Each vehicle delivered shall be subject to a complete inspection by COT personnel prior to acceptance. Inspection criteria shall include, but not be limited to, conformity to the specifications, mechanical integrity, quality, workmanship and materials. If delivered equipment is returned to the Contractor prior to acceptance for any reason, all corrections shall be made without any inconvenience to the City.
- J. Invoicing:** Vehicle and all specified equipment must be constructed, delivered, and invoiced as one unit.
- K. Warranty, Service, Maintenance, and Technical Support**
- Offeror shall warrant that all equipment and parts furnished in their offer are newly manufactured and free from defects in material and workmanship from the date the City places the equipment into service. Warranty shall also guarantee accepted trade standards of quality, fitness for the intended uses, and conformance to promises or specified specifications. No other express or implied warranty shall eliminate the vendor's liability as stated herein. Warranty shall begin from the date the vehicle is accepted by the City. Warranty shall include all parts and labor, service fees, and replacements.
  - Two year complete warranty/service agreement on all electronic and computer equipment for parts and labor, covering all components
  - Annual maintenance agreement to include one week of on-site technical assistance for vehicle, equipment, and software calibrations
  - Two years full technical support including direct technical support available normal working hours Monday to Friday (telephone, fax, email, and onsite when necessary), 8 a.m. – 5 p.m. Arizona Time.
  - Labor for technical support shall be included
  - Prompt onsite service for issues unsolvable by Pavement Management System staff at Contractor's expense
  - Quick availability of commonly used van hardware / software components for prompt shipment/delivery
  - Software protection, updates and improvements available as they are released
  - Additional technical support - Contractor shall offer COT additional technical support at the conclusion of the initial 24-month support contract.
  - Maintenance Support Requirements—routine maintenance requirements and schedules shall be clearly presented in the maintenance/operating manual; flowcharts and troubleshooting tips will be included
  - Successful vendor will provide parts and service for cab/chassis, coach body and all equipment (including warranty repairs)
- L. Equipment/Recall Notices:** In the event of any recall notice, technical service bulletin, or other important notification affecting equipment purchased from this contract, a notice shall be sent to the Contract Representative. It shall be the responsibility of the Contractor to assure that all recall notices are sent directly to the Contract Representative.

- M. Defective Product:** All defective products shall be replaced or credited by the Contractor. The cost of transportation, unpacking, inspection, repacking, reshipping or other like expenses shall be paid by the Contractor. All replacement products or credits must be received by the City within ten (10) days of initial notification.
- N. Repairs:** The vendor will be responsible for transport of vehicles to and from his place of business for repairs until such time as the COT places the vehicle in service. Transport of the vehicle will not be delayed more than one working day from date of notification.

### III. REFERENCES

**City of Tucson's Current Sensor Driven Vehicle** – <http://transview.org/aran/>

#### Vehicle Regulations

- Occupational Safety and Health Administration (OSHA) – [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10768](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10768) and <http://www.dol.gov/>
- Federal Motor Vehicle Safety Standards (FMVSS) – <http://www.nhtsa.gov/Laws+&+Regulations/Vehicles?ruleSortBy=fmvss&ruleOrder=asc>
- Environmental Protection Agency (EPA) – <http://www.epa.gov/lawsregs/>
- Arizona Motor Vehicle Department (MVD) – <http://www.azdot.gov/mvd/index.asp>

#### Sensors

- Laser South Dakota Profiler (LSDP) – [http://www.roadware.com/lib/pdf/datasheet.laser\\_sdp.pdf](http://www.roadware.com/lib/pdf/datasheet.laser_sdp.pdf)
- ASTM E1489-96 or 08 protocol – <http://www.astm.org/Standards/E1489.htm>
- World Bank Technical Paper # 46 protocol – [http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187282&theSitePK=523679&entityID=000178830\\_98101904164732&searchMenuPK=64187282&theSitePK=523679](http://www-wds.worldbank.org/external/default/main?pagePK=64193027&piPK=64187937&theSitePK=523679&menuPK=64187510&searchMenuPK=64187282&theSitePK=523679&entityID=000178830_98101904164732&searchMenuPK=64187282&theSitePK=523679)
- ASTM E950-94 or 09 Class 1 (HPMS Manual) – <http://www.astm.org/Standards/E950.htm>
- Laser Crack Measuring System (LCMS) by INO/Pavemetrics (or equivalent) – <http://www.ino.ca/en-CA/Achievements/Description/project-p/laser-crack-measurement-system.html> and [http://www.pavemetrics.com/laser\\_crack.html](http://www.pavemetrics.com/laser_crack.html)
- FHWA requirements and AASHTO PP44-01 (HPMS Manual) – [https://bookstore.transportation.org/item\\_details.aspx?ID=1670](https://bookstore.transportation.org/item_details.aspx?ID=1670)
- HPMS (Highway Performance Monitoring System) Field Manual (2010) – [http://knowledge.fhwa.dot.gov/cops/hcx.nsf/docs/EFB4BF4101D68883852576C80071C8BF?op=endocument&Group=Highway%20Performance%20Monitoring%20System%20\(HPMS\)&tab=REFERENCE](http://knowledge.fhwa.dot.gov/cops/hcx.nsf/docs/EFB4BF4101D68883852576C80071C8BF?op=endocument&Group=Highway%20Performance%20Monitoring%20System%20(HPMS)&tab=REFERENCE)

#### GPS

- Trimble AG332 – <http://www.trimble.com/agriculture/aggps-332-receiver.aspx?dtID=overview&>
- Applanix
  - Position Orientation System for Land Vehicle 220 (POS LV) – <http://www.applanix.com/products/land/pos-lv.html>
  - Position Orientation System Mobile Mapping Suite (POSPac MMS 5.3) – <http://www.applanix.com/products/land/pospac-mms.html>

#### Software

- WiseCrax – [http://www.roadware.com/pdf\\_library/](http://www.roadware.com/pdf_library/)
- Swift – <http://www.roadware.com/>

- View – <http://www.roadware.com/>
- Surveyor – [http://www.roadware.com/pdf\\_library/](http://www.roadware.com/pdf_library/)
- Virtual Drive (e.g. VisiData or VisiWeb) – [http://www.roadware.com/pdf\\_library/](http://www.roadware.com/pdf_library/)
- CarteGraph – <http://www.cartegraph.com/index.html>

## INSTRUCTIONS TO OFFERORS

### 1. DEFINITION OF KEY WORDS USED IN THE SOLICITATION:

For purposes of this solicitation and subsequent contract, the following definitions shall apply:

**City:** The City of Tucson, Arizona

**Contract:** The legal agreement executed between the City and the Contractor/Consultant. The Contract shall include this RFP document incorporated herein by reference, all terms, conditions, specifications, scope of work, Amendments, the Contractor's offer and negotiated items as accepted by the City.

**Contractor/Consultant:** The individual, partnership, or corporation who, as a result of the competitive solicitation process, is awarded a contract by the City.

**Contract Representative:** The City employee or employees who have specifically been designated to act as a contact person or persons to the Contractor, and is responsible for monitoring and overseeing the Contractor's performance under this Contract.

**Director of Procurement:** The contracting authority for the City, authorized to sign contracts and amendments thereto on behalf of the City.

**May:** Indicates something that is not mandatory but permissible.

**Offeror:** The individual, partnership, or corporation who submits a proposal in response to a solicitation.

**Shall, Will, Must:** Indicates a mandatory requirement. Failure to meet these mandatory requirements, if they constitute a substantive requirement, may, at the City's sole discretion, result in the rejection of a proposal as non-responsive.

**Should:** Indicates something that is recommended but not mandatory. If the Offeror fails to provide recommended information, the City may, at its sole option, ask the Offeror to provide the information or evaluate the proposal without the information.

**2. PRE-PROPOSAL CONFERENCE:** If scheduled, the date and time of a Pre-Proposal conference is indicated on the cover page of this document. Attendance at this conference is not mandatory. Written minutes and/or notes will not be available, therefore attendance is encouraged. If an Offeror is unable to attend the Pre-Proposal Conference questions may be submitted in writing. Offerors are encouraged to submit written questions, via electronic mail or facsimile, at least five days prior to the Request for Proposal due date to the Contract Officer listed above. The purpose of this conference will be to clarify the contents of this Request for Proposal in order to prevent any misunderstanding of the City's position. Any doubt as to the requirements of this Request for Proposal or any apparent omission or discrepancy should be presented to the City at this conference. The City will then determine the appropriate action necessary, if any, and may issue a written amendment to the Request for Proposal. Oral statements or instructions will not constitute an amendment to this Request for Proposal.

**3. INQUIRIES:** Any question related to the Request for Proposal shall be directed to the Contract Officer whose name appears above. An offeror shall not contact or ask questions of the department for whom the requirement is being procured. The Contract Officer may require any and all questions be submitted in writing. Offerors are encouraged to submit written questions via electronic mail or facsimile, at least five days prior to the proposal due date. Any correspondence related to a solicitation should refer to the appropriate Request for Proposal number, page and paragraph number. An envelope containing questions should be identified as such, otherwise it may not be opened until after the official proposal due date and time. Oral interpretations or clarifications will be without legal effect. Only questions answered by a formal written amendment to the Request for Proposal will be binding.

**4. AMENDMENT OF REQUEST FOR PROPOSAL:** The Offeror shall acknowledge receipt of a Request for Proposal Amendment by signing and returning the document by the specified due date and time.

**5. FAMILIARIZATION OF SCOPE OF WORK:** Before submitting a proposal, each offeror shall familiarize itself with the Scope of Work, laws, regulations and other factors affecting contract performance. The Offeror shall be responsible for fully understanding the requirements of the subsequent Contract and otherwise satisfy itself as to the expense and difficulties accompanying the fulfillment of contract requirements. The submission of a proposal will constitute a representation of compliance by the Offeror. There will be no subsequent financial adjustment, other than that provided by the subsequent Contract, for lack of such familiarization.

### 6. PREPARATION OF PROPOSAL:

- A. All proposals shall be on the forms provided in this Request for Proposal package. It is permissible to copy these forms as required. Facsimiles or electronic mail proposals shall not be considered.
- B. At a minimum, your proposal should include the signed Offer and Acceptance form, signed copies of any solicitation amendments, completed Price Page and your response to all evaluation criteria.
- C. The Offer and Acceptance page shall be signed by a person authorized to submit an offer. An authorized signature on the Offer and Acceptance page, Proposal Amendment(s), or cover letter accompanying the proposal documents shall constitute an irrevocable offer to sell the good and/or service specified herein. Offeror shall submit any additional requested documentation, signifying intent to be bound by the terms of the agreement.

- D. The authorized person signing the proposal shall initial erasure, interlineations or other modifications on the proposal.
  - E. In case of error in the extension of prices in the proposal, unit price shall govern when applicable.
  - F. Periods of time, stated as a number of days, shall be in calendar days.
  - G. It is the responsibility of all offerors to examine the entire Request for Proposal package and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting a proposal. Negligence in preparing a proposal confers no right of withdrawal after due date and time.
  - H. The City shall not reimburse the cost of developing, presenting, submitting or providing any response to this solicitation.
  - I. Offeror must list any subcontractors to be utilized in the performance of the services specified herein. For each subcontractor, details on respective qualifications must be included.
- 7. PAYMENT DISCOUNTS:** Payment discount periods shall be computed from the date of receipt of the material/service or correct invoice, whichever is later, to the date City's payment warrant is mailed. Unless freight and other charges are itemized, any discount provided shall be taken on full amount of invoice. Payment discounts of twenty-one calendar days or more shall be deducted from the proposed price in determining the price points. However, the City shall be entitled to take advantage of any payment discount offered by a vendor provided payment is made within the discount period.
- 8. TAXES:** The City of Tucson is exempt from federal excise tax, including the federal transportation tax.
- 9. PROPOSAL/SUBMITTAL FORMAT:** An original and 8 copies (9 total) of each proposal should be submitted on the forms and in the format specified in the RFP. Offerors shall also submit one electronic copy of the proposal on cd, disc or zip disc in MS Office97 or .pdf format. Any confidential information shall be submitted on a separate cd, disc or zip disc. The original copy of the proposal should be clearly labeled "Original" and shall be single-sided, three hole punched and in a binder. The material should be in sequence and related to the RFP. **The sections of the submittal should be tabbed, clearly identifiable and should include a minimum of the following sections: the completed Offer and Acceptance Form, all signed Amendments, a copy of this RFP document and the Offeror's response to the Evaluation Criteria including the completed Price Page.** Failure to include the requested information may have a negative impact on the evaluation of the offeror's proposal.
- 10. EXCEPTIONS TO CONTRACT PROVISIONS:** A response to any Request for Proposal is an offer to contract with the City based upon the contract provisions contained in the City's Request for Proposal, including but not limited to, the specifications, scope of work and any terms and conditions. Offerors who wish to propose modifications to the contract provisions must clearly identify the proposed deviations and any proposed substitute language. The provisions of the Request for Proposal cannot be modified without the express written approval of the Director or his designee. If a proposal or offer is returned with modifications to the contract provisions that are not expressly approved in writing by the Director or his designee, the contract provisions contained in the City's Request for Proposal shall prevail.
- 11. PUBLIC RECORD:** All proposals submitted in response to this Request for Proposal shall become the property of the City and shall become a matter of public record available for review subsequent to the award notification.
- 12. CONFIDENTIAL INFORMATION:** The City of Tucson is obligated to abide by all public information laws. If an Offeror believes that any portion of a proposal, offer, specification, protest or correspondence contains information that should be withheld, a statement advising the Contract Officer of this fact should accompany the submission and the information shall be so identified wherever it appears. The City shall review all requests for confidentiality and may provide a written determination to designate specified documents confidential or the request may be denied. Price is not confidential and will not be withheld. If the confidential request is denied, such information shall be disclosed as public information, unless the offeror submits a formal written objection.
- 13. CERTIFICATION:** By signature on the Offer and Acceptance page, solicitation Amendment(s), or cover letter accompanying the submittal documents, Offeror certifies:
- A. The submission of the offer did not involve collusion or other anti-competitive practices.
  - B. The Offeror shall not discriminate against any employee or applicant for employment in violation of Federal or State law.
  - C. The Offeror has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer.
  - D. The Offeror hereby certifies that the individual signing the submittal is an authorized agent for the Offeror and has the authority to bind the Offeror to the Contract.
- 14. WHERE TO SUBMIT PROPOSALS:** In order to be considered, the Offeror must complete and submit its proposal to the City of Tucson Department of Procurement at the location indicated, prior to or at the exact date and time indicated on the Notice of Request for Proposal page. The Offeror's proposal shall be submitted in a sealed envelope. The words "SEALED

PROPOSAL" with the REQUEST FOR PROPOSAL TITLE, REQUEST FOR PROPOSAL NUMBER, PROPOSAL DUE DATE AND TIME and OFFEROR'S NAME AND ADDRESS shall be written on the envelope.

- 15. LATE PROPOSALS:** Late proposals will be rejected.
- 16. OFFER AND ACCEPTANCE PERIOD:** In order to allow for an adequate evaluation, the City requires an offer in response to this solicitation to be valid and irrevocable for ninety (90) days after the proposal due date and time.
- 17. WITHDRAWAL OF PROPOSAL:** At any time prior to the specified solicitation due date and time, an offeror may formally withdraw the proposal by a written letter, facsimile or electronic mail from the Offeror or a designated representative. Telephonic or oral withdrawals shall not be considered.
- 18. DISCUSSIONS:** The City reserves the right to conduct discussions with offerors for the purpose of eliminating minor irregularities, informalities, or apparent clerical mistakes in the proposal in order to clarify an offer and assure full understanding of, and responsiveness to, solicitation requirements.
- 19. CONTRACT NEGOTIATIONS:** Exclusive or concurrent negotiations may be conducted with responsible offeror(s) for the purpose of altering or otherwise changing the conditions, terms and price of the proposed contract unless prohibited. Offerors shall be accorded fair and equal treatment in conducting negotiations and there shall be no disclosure of any information derived from proposals submitted by competing offerors. Exclusive or concurrent negotiations shall not constitute a contract award nor shall it confer any property rights to the successful offeror. In the event the City deems that negotiations are not progressing, the City may formally terminate these negotiations and may enter into subsequent concurrent or exclusive negotiations with the next most qualified firm(s).
- 20. VENDOR APPLICATION:** Prior to the award of a Contract, the successful offeror shall register with the City's Department of Procurement. Registration can be completed at <http://www.tucsonprocurement.com/> by clicking on Vendor Services. Please note that email notifications of newly published solicitations and amendments will be provided to those vendors that select email as their preferred delivery method in their vendor record.
- 21. CITY OF TUCSON BUSINESS LICENSE:** Prior to the award of a Contract, the successful offeror must obtain a City of Tucson Business License or a written determination that a business license is not required issued by the City's Business License Section. The business license must remain valid throughout the life of this contract. Contractor must provide a valid copy of the business license or a written determination that a business license is not required prior to award and at contract renewal. Application for a City Business License can be completed at <http://www.tucsonaz.gov/etax>. For questions contact the City's Business License Section at (520) 791-4566 or email at [tax-license@tucsonaz.gov](mailto:tax-license@tucsonaz.gov).
- 22. UPON NOTICE OF INTENT TO AWARD:** The apparent successful offeror shall sign and file with the City, within five (5) days after Notice of Intent to Award, all documents necessary to the successful execution of the Contract.
- 22. AWARD OF CONTRACT:** Notwithstanding any other provision of the Request for Proposal, the City reserves the right to:
- (1) waive any immaterial defect or informality; or
  - (2) reject any or all proposals, or portions thereof; or
  - (3) reissue the Request for Proposal.

A response to this Request for Proposal is an offer to contract with the City based upon the terms, conditions and Scope of Work contained in the City's Request for Proposal. Proposals do not become contracts unless and until they are executed by the City's Director of Procurement and the City Attorney. A contract has its inception in the award, eliminating a formal signing of a separate contract. All of the terms and conditions of the contract are contained in the Request for Proposal, unless any of the terms and conditions are modified by a Request for Proposal amendment, a Contract Amendment, or by mutually agreed terms and conditions in the Contract documents.

- 23. PROPOSAL RESULTS:** The name(s) of the successful offeror(s) will be posted on the Procurement Department's Internet site at <http://www.tucsonprocurement.com/> upon issuance of a Notice of Intent to Award or upon final contract execution.
- 24. PROTESTS:** A protest shall be in writing and shall be filed with the Director of Procurement. A protest of a Request for Proposal shall be received at the Department of Procurement not less than five (5) working days before the Request for Proposal due date. A protest of a proposed award or of an award shall be filed within ten (10) days after issuance of notification of award or issuance of a notice of intent to award, as applicable. A protest shall include:
- A. The name, address, and telephone number of the protestant;
  - B. The signature of the protestant or its representative;
  - C. Identification of the Request for Proposal or Contract number;
  - D. A detailed statement of the legal and factual grounds of protest including copies of relevant documents; and

E. The form of relief requested.

## **PROPOSAL EVALUATION REQUIREMENTS**

### **I. PROPOSAL EVALUATION CRITERIA (listed in relative order of importance):**

- A. Method of Approach
- B. Qualifications & Experience
- C. Price Proposal

### **II. REQUIREMENTS SPECIFIC TO EVALUATION CRITERIA (listed in relative order of importance):**

The narrative portion and the materials presented in response to this Request for Proposal should be submitted in the same order as requested and must contain, at a minimum, the following:

#### **A. Method of Approach**

1. Demonstrate and describe your firm's basic understanding of the project requirements; its proposed approach to organizing, managing, and successfully completing the Work within the schedule provided.
2. Offerors shall respond **point-by-point** to the following items in the Scope of Work. Your response may be as simple as listing "compliance" next to the section number or a general statement of compliance with all requirements in a particular section. Your response may also include any additional information -- pictures, diagrams, literature, narrative, etc. -- that will aid the City in the evaluation of your proposal. For all cases of non-compliance, Offeror shall provide a detailed explanation of how their submittal can still meet the overall intent of the requirement. Offerors must be consistent with naming conventions used throughout the RFP response.
  - a. Respond to the Pavement Survey and Data Collection Requirements on pages 3-4 of the Scope of Work clearly indicating compliance with the requirements.
  - b. Respond to the Vehicle Requirements on pages 4-8 of the Scope of Work clearly indicating compliance with the requirements. In addition, provide the following information regarding the proposed vehicle:
    1. State make and model of chassis
    2. State overall height, width, and height (interior and exterior) of vehicle
    3. Windows/Glass: Offerors shall provide details for turret window details
    4. State outside mirror size
    5. Insulation: Specify positions of insulation
    6. Cabinet or some kind of streamlined storage unit (that doesn't take up a lot of space) for items such as maps, documents, pens, etc. Options to be discussed.
    7. Brakes: State braking system offered
    8. Engine: State engine model and provide specifications
    9. Fuel tank: State tank size
    10. Gross Vehicle Weight (GVW) and Rating (GVWR) capacity
      - a. State GVWR for front axle
      - b. State GVWR for rear axle
      - c. State vehicle GVWR
      - d. State projected vehicle GVW
    11. Transmission: State model and manufacturer
    12. Axle ratio: State offered ratio
    13. Tires and wheels, etc.:
      - State Brand
      - State size and rating



14. Alternator: State amperage
  15. Batteries: State CCA
  16. Generator: State manufacturer and model
- c. Respond to the Technical Computer Equipment Requirement Requirements on pages 8-14 of the Scope of Work clearly indicating compliance with the requirements.
3. Please provide detailed diagrams of the proposed equipment to include exterior and interior layouts.
  4. Provide a sample delivery schedule identifying all key events and deliverables from acceptance of order to delivery and acceptance by the City. Time frames can be designated by actual dates or period of days from NTP. Schedule must include any events that require COT responses and approvals.
  5. Indicate whether the feature / functionality is provided natively or by a third party. If third party, indicate who will deliver and be responsible for the feature/functionality (3<sup>rd</sup> Party or main contractor).
  6. Provide a demo disk/CD as well as a presentation to showcase product capabilities.
  7. Please provide the following information on initial training:
    - a. What training is required for the safe and efficient use of the equipment?
    - b. How will this training be conducted?
    - c. Who will conduct the training?
    - d. Where will this training take place?
    - e. What type of documentation is provided with the proposed training?
    - f. Is a "train the trainer" program available? Is this training different than the regular initial training? How is this training conducted? Are there any additional costs above the regular initial training?
  8. Provide a management plan for implementing this project. The management plan shall be detailed enough to assure COT that the contractor can deliver the system on time, within budget and meet all requirements as specified in this RFP. The management plan should not be a tutorial on project planning and / or the benefits of a project plan. COT's expectations concerning the submittal of the management plan are that the contractors state their prior proven experience and expertise in the implementation of the proposed product(s). The plan shall state major milestones, step-by-step tasks, timetables, staffing numbers, personnel resumes and anticipated responsibilities for both the contractor and COT.
  9. Provide a maintenance schedule or some other form of documentation showing the required and suggested maintenance for the equipment and vehicle.
  10. Provide information, which details the type(s) and extent(s) of coverage and exclusions under the manufacturer's standard warranty for cab/chassis, body, all appliances and equipment, including but not limited to:
    - Chassis
    - Emission Controls
    - Engine
    - Turbo charger
    - Differential
    - Transmission
    - Frame

- Electrical System
  - Air conditioning
  - Body
  - Roof A/C
  - Heater
  - Generator
  - State years/miles
11. Provide information on how warranty claims are submitted, who is the key point of contact, etc.
  12. Please provide a cost sheet or some other form of documentation showing replacement costs for common items that will need to be replaced during the useful life of the equipment that is to be purchased in this solicitation

## **B. Qualifications & Experience**

1. Provide a general overview of your company including but not limited to:
  - Corporate headquarters and branch office(s) information, location(s), principal type of business, date established, number of employees, type of ownership or legal structure, former name(s) etc.;
  - Organizational chart;
  - Last two years audited financial statements or annual report, if available;
  - Describe experience representing the manufacturer(s) of products offered
  - Provide any letters of recommendation/commendation received for past projects.
  - Detail any experience your firm has with pavement management systems.
2. Have you, either presently or in the past, been involved in any litigation, bankruptcy, or reorganization?
3. Provide a complete list of customers who your firm has provided the proposed Pavement Survey and Data Collection vehicle for in the last 5 years.
4. Provide a minimum of three (3) references for whom your firm has successfully provided the proposed solution similar to the Scope of Work described herein. For each reference, provide the following information: Company name, address, contact person, phone number, email address, when the project was started and completed. References from other public agencies, particularly municipal governments, are preferred.
5. Provide resumes and three references (preferably from the public sector) for all key personnel (contractor and/or subcontractor) proposed to do work under this contract. Resumes shall include their title within the organization, a description of the type of work they would perform on the project, when the work was performed, the individuals' credentials, background, years of experience and relevant experience. References shall include the contact's name, phone number, email, position, organization, and the work which the Offeror performed for the reference.
6. The City desires one point of contact for this purchase. Please provide an affirmative statement of the Project Manager's authority in regards to this purchase. Also, provide full contact information including, name, title, phone number, email address, statement of qualifications, etc.
7. Identify any contract or subcontract held by the firm, officers of the firm, or proposed prime service provider(s), which has been terminated within the last five years. Identify any claims

arising from a contract, which resulted in litigation or arbitration within the last three years. Briefly describe the circumstances and the outcomes.

8. Provide a brief assessment of the firm's availability. Discuss the firm's ability to respond efficiently and in a timely manner to the client's needs.

#### **D. Price Proposal**

1. Provide the price proposal as requested on the Price Page attached herein. Provide a complete breakdown of items and costs for all items included in the Pavement Survey and Data Collection Vehicle.
2. All proposals pricing shall include the cost of two (2) round trip transportation, lodging, and meals for two (2) COT staff members to travel from Tucson, Arizona to the manufacturer's facility to perform a on site build inspections. The scheduling of the inspections will be at the discretion of the City with the intent of the first inspection visit to be schedule D during the manufacturing process and the second inspection visit to be conducted at the 100% completion. The manufacturer shall provide for access to the Pavement Survey and Data Collection vehicle for a minimum of twenty-four hours to allow a complete inspection by COT personnel. It shall be the responsibility of the offeror to provide extended lodging and meals should re-inspection be necessary. Upon request of the Quality Assurance Supervisor, COT personnel shall have access to the Contractor's quality assurance files relating to this procurement. These files shall include drawings, material standards, parts list, inspection processing and reports and records of defects.
3. Please provide a cost sheet or some other form of documentation showing replacement costs for common items that will need to be replaced during the useful life of the unit.
4. Provide details and costs for extended annual maintenance support following the two-year warranty period; software and equipment upgrades should be provided when practical.
5. Provide information and pricing on available options that might be of interest to the City.
6. Prompt Payment Discount: As stated in the Instructions to Offerors, 7. Discounts, the price(s) herein can be discounted by \_\_\_\_\_%, if payment is made within \_\_\_\_\_ days.

NOTE: Unless otherwise specified in the offer, a two percent/twenty-one days (2%/21) cash discount will be assumed as allowable and will be considered in determining Price Points.

7. Credit Card Payment: The City's preferred method of payment is via credit card. The City will issue a Purchase Order and, in some cases, either provide a credit card for payment at the time of ordering or pay subsequent invoices by credit card upon receipt of goods or services in good order. However, not all City employees will possess a credit card and therefore, the City reserves the right to make payment by check as it deems necessary.
  - a. Will payment be accepted via commercial credit card? \_\_\_\_\_Yes \_\_\_\_\_No  
If yes, can commercial payment(s) be made online? \_\_\_\_\_Yes \_\_\_\_\_No  
If "no" to above, will consideration be given to accept the card?  
\_\_\_\_\_Yes \_\_\_\_\_No
  - b. Will a third party be processing the commercial credit card payment(s)?  
\_\_\_\_Yes \_\_\_\_No  
If yes, indicate the flat fee per transaction \$\_\_\_\_\_ (as allowable, per Section 5.2.E of Visa Operating Regulations).

8. Does your firm have a City of Tucson Business License? \_\_\_\_\_ Yes \_\_\_\_\_ No  
If yes, please list your City of Tucson Business License number \_\_\_\_\_

**III. GENERAL**

**A. Shortlist:**

The City reserves the right to shortlist the offerors on all of the stated criteria. However, the City may determine that shortlisting is not necessary.

**B. Interviews:**

The City reserves the right to conduct interviews with some or all of the offerors at any point during the evaluation process. However, the City may determine that interviews are not necessary. In the event interviews are conducted, information provided during the interview process shall be taken into consideration when evaluating the stated criteria. The City shall not reimburse the offeror for the costs associated with the interview process.

**C. Additional Investigations:**

The City reserves the right to make such additional investigations as it deems necessary to establish the competence and financial stability of any offeror submitting a proposal.

**D. Prior Experience:**

Experiences with the City and entities that evaluation committee members represent and that are not specifically mentioned in the solicitation response may be taken into consideration when evaluating offers.

**E. Multiple Awards:**

To provide adequate contract coverage, at the City's sole discretion, multiple awards may be made.

## **SPECIAL TERMS AND CONDITIONS**

**1 FOB DESTINATION FREIGHT PREPAID:** Prices shall be FOB Destination Freight Prepaid to the delivery location designated. Contractor shall retain title and control of all goods until they are delivered and the Contract of coverage has been completed. All risk of transportation and all related charges shall be the responsibility of the Contractor. All claims for visible or concealed damage shall be filed by the Contractor. The City will assist the Contractor in arranging for inspection.

**2. INSURANCE:** The Contractor agrees to:

Obtain insurance coverage of the types and amounts required in this section and keep such insurance coverage in force throughout the life of this Contract. All policies will contain an endorsement providing that written notice be given to the City at least ten (10) calendar days prior to termination, cancellation, or reduction in coverage in any policy.

The Comprehensive General Liability Insurance and Comprehensive Automobile Liability Insurance policies will include the City and the Regional Transportation Authority as an additional insured with respect to liability arising out of the performance of this Contract. The Contractor agrees that the insurance hereunder will be primary and that any insurance carried by the City will be excess and not contributing.

Provide and maintain minimum insurance limits as applicable.

Coverage Afforded

Limits of Liability

Workmen's Compensation  
Employer's Liability

Statute  
\$100,000

Comprehensive General  
Liability Insurance  
Including:  
(1) Products & Completed  
Operations  
(2) Blanket Contractual

\$1,000,000 Bodily Injury  
Combined Single Limit  
\$100,000 Property Damage

Comprehensive Automobile  
Insurance  
Including:  
(1) Non-Owned  
(2) Leased  
(3) Hired Vehicles

\$1,000,000 Bodily Injury Liability  
Combined Single Limit  
\$100,000 Property Damage

Professional Liability  
Insurance (Errors and Omissions)

\$1,000,000 (Minimum)  
Combined Single Limit

Contractor will present to the City written evidence (Certifications of Insurance) of compliance with Items A., B and C. above. Said evidence shall be to the City Procurement Director's satisfaction.

All policies will contain an endorsement providing that written notice be given to the City at least ten (10) calendar days prior to termination, cancellation, or reduction in coverage in any policy.

3. **PERFORMANCE BOND:** The successful bidder/offeror(s) must furnish a performance surety in the amount of 100% of the awarded Contract amount within ten days after notice of award. The surety will be in the form of a bond, cashier's check, certified check, money order, letter of credit, or certificate of deposit. Personal or company checks are not acceptable unless certified
4. **WARRANTY BOND:** Contractor shall furnish, at its own expense, Maintenance and Guarantee Bond security. The amount shall be equal to ten percent (10%) of the Unit Price for each vehicle ordered as a guarantee that the Contractor will provide a full performance of warranty and service support terms of this Contract. Said maintenance and guarantee bond/security shall become effective upon the City of Tucson's issuance of the Certificate of Conditional Acceptance of the first vehicle and remain in full force and effect for a period of two (2) years from the date the City of Tucson issues the Certificate of Conditional Acceptance for the last Vehicle of the Base Order.

5. **LIQUIDATED DAMAGES:** The Contractor agrees that the City will incur damages if the Contractor fails to complete the work within the specified time or any approved extensions thereof and that the liquidated damages specified herein represent a fair and equitable approximation of the City's damages.

Liquidated damages shall be in the amount of \$70.00 for each calendar day of delay. If the Contract is not terminated, the Contractor shall continue performance and be liable to the City for the liquidated damages until the products are delivered or the services performed.

In the event the City exercises its right of termination, the Contractor shall be liable to the City for any excess costs, and in addition, for liquidated damages until such time the City may reasonably obtain delivery or performance of similar supplies or services.

6. **SUBSTITUTE ITEMS:** The City intends to award Contract(s) for particular products and/or models of equipment as result of this solicitation. In the event that a product or model is discontinued by the manufacturer, the City at its sole discretion may allow the Contractor to provide a substitute for the discontinued item. The Contractor shall request permission to substitute a new product or model and provide the following:
- A formal announcement from the manufacturer that the product or model has been discontinued.
  - Documentation from the manufacturer that names the replacement product or model.
  - Documentation that provides clear and convincing evidence that the replacement meets or exceeds all specifications required by the original solicitation.
  - Documentation that provides clear and convincing evidence that the replacement will be compatible with all the functions or uses of the discontinued product or model.
  - Documentation confirming that the price for the replacement is the same as or less than the discontinued model.

## STANDARD TERMS AND CONDITIONS

1. **ADVERTISING:** Contractor shall not advertise or publish information concerning this Contract without prior written consent of the City's Director of Procurement.
2. **AFFIRMATIVE ACTION:** Contractor shall abide by the provisions of the Tucson Procurement Code Chapter 28, Article XII.
3. **AMERICANS WITH DISABILITIES ACT:** The Contractor shall comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101, et seq.) and applicable Federal regulations under the Act.
4. **APPLICABLE LAW:** This Contract shall be governed, and the City and Contractor shall have all remedies afforded to each, by the Tucson Procurement Code and the law of the State of Arizona. State law claims shall be brought only in Pima County Superior Court.
5. **ASSIGNMENT-DELEGATION:** No right or interest in this Contract shall be assigned by the Contractor without prior written permission of the City, and no delegation of any duty of the Contractor shall be made without prior written permission of the City's Director of Procurement. The City shall not unreasonably withhold approval and shall notify the Contractor of the City's position by written notice.
6. **CERTIFICATION OF COMPLIANCE WITH A.R.S. SEC. 35-393 ET SEQ.:** By signing this contract, the Contractor certifies that it does not have scrutinized business operations in Iran as required by A.R.S. sec. 35-393 et seq. If the City determines that the Contractor has submitted a false certification, the City may impose remedies as provided in the Tucson Procurement Code up to and including termination of this contract.
7. **CHILD/SWEAT-FREE LABOR POLICY:** The Contractor shall comply with all applicable provisions of the United States Federal and State Child Labor and Worker's Right laws and agrees if called upon to affirm in writing, that they, and any subcontractor involved in the provision of goods to the City, are in compliance.
8. **CLEAN UP:** The Contractor shall at all times keep the contract area, including storage areas used by the Contractor, free from accumulation of waste material or rubbish and, prior to completion of the work, remove any rubbish from the premises and all tools, scaffolding, equipment and materials not property of the City. Upon completion of the repair, the Contractor shall leave the work and premises in clean, neat and workmanlike condition.
9. **COMMENCEMENT OF WORK:** The Contractor is cautioned not to commence any billable work or provide any material or service under this Contract until Contractor receives purchase order or is otherwise directed to do so, in writing, by the City.
10. **CONFIDENTIALITY OF RECORDS:** The Contractor shall establish and maintain procedures and controls that are acceptable to the City for the purpose of assuring that no information contained in its records or obtained from the City or from others in carrying out its functions under the Contract shall be used by or disclosed by it, its agents, officers, or employees, except as required to efficiently perform duties under the Contract. Persons requesting such information should be referred to the City. Information pertaining to individual persons shall not be divulged other than to employees or officers of Contractor as needed for the performance of duties under the Contract, unless otherwise agreed to in writing by the City.
11. **CONTRACT AMENDMENTS:** The Procurement Department has the sole authority to:
  - A. Amend the contract or enter into supplemental verbal or written agreements;
  - B. Grant time extensions or contract renewals;
  - C. Otherwise modify the scope or terms and provisions of the contract.

This Contract shall only be modified with the approval of the Department of Procurement. Except in the case of a documented emergency, approval must be granted prior to performance. Any contract modification not explicitly approved by the Procurement Department through a written contract amendment or change order is performed at the sole risk of the Contractor and may not be eligible for payment by the City.

12. **CONTRACT:** The Contract shall be based upon the Request for Proposal issued by the City and the Offer submitted by the Contractor in response to the Request for Proposal. The offer shall substantially conform to the terms, conditions, specifications and other requirements set forth within the text of the Request for Proposal. The City reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial non-conformity in the offer, as determined by the City's Director of Procurement, shall be deemed non-responsive and the offer rejected. The Contract shall contain the entire agreement between the City of Tucson and the Contractor relating to this requirement and shall

prevail over any and all previous agreements, contracts, proposals, negotiations, purchase orders, or master agreements in any form.

- 13. DEFAULT IN ONE INSTALLMENT TO CONSTITUTE TOTAL BREACH:** Contractor shall deliver conforming materials in each installment or lot of this Contract and may not substitute nonconforming materials. Delivery of nonconforming materials, or default of any nature, may constitute breach of the Contract. Noncompliance may be deemed a cause for possible Contract termination.
- 14. DUPLEXED/RECYCLED PAPER:** In accordance with efficient resource procurement and utilization policies adopted by the City of Tucson, the Contractor shall ensure that, whenever practicable, all printed materials produced by the Contractor in the performance of this Contract are duplexed (two-sided copies), printed on recycled paper and labeled as such.
- 15. EXCLUSIVE POSSESSION:** All services, information, computer program elements, reports and other deliverables created under this Contract are the sole property of the City of Tucson and shall not be used or released by the Contractor or any other person except with prior written permission by the City.
- 16. FEDERAL IMMIGRATION LAWS AND REGULATIONS:** Contractor warrants that it complies with all Federal Immigration laws and regulations that relate to its employees and complies with A.R.S. § 23-214(A) and that it requires the same compliance of all subcontractors under this Contract. Contractor acknowledges that pursuant to A.R.S. § 41-4401 and effective September 30, 2008, a breach of this warranty is a material breach of this Contract subject to penalties up to and including termination of this Contract. The City retains the legal right to audit the records of the Contractor and inspect the papers of any employee who works for the Contractor to ensure compliance with this warranty and the Contractor shall assist in any such audit. The Contractor shall include the requirements of this paragraph in each contract with subcontractors under this Contract.

If the Contractor or subcontractor warrants that it has complied with the employment verification provisions prescribed by sections 274(a) and 274(b) of the Federal Immigration and Nationality Act and the E-verify requirements prescribed by A.R.S. § 23-214(A), the Contractor or subcontractor shall be deemed to be in compliance with this provision. The City may request proof of such compliance at any time during the term of this Contract by the Contractor and any subcontractor.

- 17. FORCE MAJEURE:** Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this Contract if and to the extent that such party's performance of this Contract is prevented by reason of Force Majeure. The term "Force Majeure" means an occurrence that is beyond the control of the party affected and occurs without its fault or negligence. Force Majeure shall not include late performance by a subcontractor unless the delay arises out of a Force Majeure occurrence in accordance with this Force Majeure term and condition.

If either party is delayed at any time in the progress of the work by Force Majeure, the delayed party shall notify the other party in writing of such delay, as soon as is practical, of the commencement thereof and shall specify the causes of such delay in such notice. Such notice shall be hand-delivered or mailed certified-return receipt and shall make a specific reference to this article, thereby invoking its provisions. The delayed party shall cause such delay to cease as soon as practicable and shall notify the other party in writing when it has done so. The time of completion shall be extended by contract modification for a period of time equal to the time that results or effects of such delay prevent the delayed party from performing in accordance with this Contract.

- 18. GRATUITIES:** The City may, by written notice to the Contractor, terminate this Contract if it is found that gratuities, in the form of entertainment, gifts, meals or otherwise, were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the City amending, or the making of any determinations with respect to the performing of such Contract. In the event this Contract is terminated by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold from the Contractor the amount of the gratuity.

- 19. HUMAN RELATIONS:** Contractor shall abide by the provisions of the Tucson City Code Chapter 28, Article XII.

- 20. INDEMNIFICATION:** To the fullest extent permitted by law, Contractor, its successors, assigns and guarantors, shall pay, defend, indemnify and hold harmless the City of Tucson, its agents, representatives, officers, directors, officials and employees from and against all allegations, demands, proceedings, suits, actions, claims, including claims of patent or copyright infringement, damages, losses, expenses, including but not limited to, attorney fees, court costs, and the cost of appellate proceedings, and all claim adjusting and handling expense, related to, arising from or out of or resulting from any actions, acts, errors, mistakes or omissions caused in whole or part by Contractor relating to work, services and/or products provided in the performance of this Contract, including but not limited to, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and any injury or damages claimed by any of Contractor's and Subcontractor's employees.



- 21. INDEPENDENT CONTRACTOR:** It is understood that each party shall act in its individual capacity and not as an agent, employee, partner, joint venturer, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other party for any purpose.

The Contractor shall not be entitled to compensation in the form of salaries, paid vacation or sick days by the City.

The City of Tucson will not provide any insurance coverage to the Contractor, including Worker's Compensation coverage. The Contractor is advised that taxes, social security payments, and other withholdings shall not be withheld from a City payment issued under this Contract and that Contractor should make arrangements to directly pay such expenses.

- 22. INSPECTION AND ACCEPTANCE:** All material or service is subject to final inspection and acceptance by the City. Material or service failing to conform to the specifications of this Contract shall be held at the Contractor's risk and may be returned to the Contractor. If returned, all costs are the responsibility of the Contractor. Noncompliance may be deemed a cause for possible Contract termination.

- 23. INTERPRETATION-PAROLE EVIDENCE:** This Contract is intended by the parties to be a final expression of their agreement and is intended also as a complete and exclusive statement of the terms of this agreement. No course of prior dealings between the parties and no usage of the trade shall be relevant to supplement or explain any term used in the Contract. Acceptance or consent in the course of performance under this Contract shall not be relevant to determine the meaning of this Contract even though the accepting or consenting party has knowledge of the nature of the performance and the opportunity to object.

- 24. LICENSES:** Contractor shall maintain in current status all Federal, State, and local licenses and permits required for the operation of the business conducted by the Contractor as applicable to this Contract.

- 25. LIENS:** All materials, services, and other deliverables supplied to the City under this Contract shall be free of all liens other than the security interest. Security interest shall extinguish upon full payment made by the City. Upon the City's request, the Contractor shall provide a formal release of all liens.

- 26. NO REPLACEMENT OF DEFECTIVE TENDER:** Every tender of materials must fully comply with all provisions of this Contract. If a tender is made which does not fully comply, this shall conform to the termination clause set forth within this document.

- 27. NON-EXCLUSIVE CONTRACT:** Any contract resulting from this solicitation shall be awarded with the understanding and agreement that it is for the sole convenience of the City of Tucson. The City reserves the right to obtain like goods or services from another source when necessary.

- 28. OVERCHARGES BY ANTITRUST VIOLATIONS:** The City maintains that, in actual practice, overcharges resulting from antitrust violations are borne by the purchaser. Therefore, to the extent permitted by law, the Contractor hereby assigns to the City any and all claims for such overcharges as to the materials or services used to fulfill the Contract.

- 29. PAYMENT:** The City's preferred method of payment is via credit card. The City will issue a Purchase Order and, in some cases, either provide a credit card for payment at the time of ordering or pay subsequent invoices by credit card upon receipt of goods or services in good order. However, not all City employees will possess a credit card and, therefore, the City reserves the right to make payment by check as it deems necessary.

Unless payment is made by credit card at time of order or point of sale, a separate invoice shall be issued for each shipment of material or service performed, and no payment shall be issued prior to receipt of material or service and correct invoice.

The City shall make every effort to process payment for the purchase of materials or services within twenty-one (21) calendar days after receipt of materials or services and a correct invoice.

- 30. PROTECTION OF GOVERNMENT PROPERTY:** The Contractor shall use reasonable care to avoid damaging existing buildings, equipment, and vegetation (such as trees, shrubs, and grass) on City property. If the Contractor fails to do so and damages such property, the Contractor shall replace or repair the damage at no expense to the City, as determined and approved by the City's Director of Procurement. If the Contractor fails or refuses to make such repair or replacement, the City will determine a cost and the Contractor shall be liable for the cost thereof, which may be deducted from the Contract price.

- 31. PROVISIONS REQUIRED BY LAW:** Each and every provision of law and any clause required by law to be in the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not

inserted, or is not correctly inserted, then upon the application of either party the Contract shall be amended to make such insertion or correction.

- 32. RECORDS:** Internal control over all financial transactions related to this Contract shall be in accordance with sound fiscal policies. The City may, at reasonable times and places, audit the books and records of the Contractor and/or any subcontractors. Said audit shall be limited to this Contract.
- 33. RIGHT TO ASSURANCE:** Whenever one party to this Contract has reason to question, in good faith, the other party's intent to perform, the former party may demand that the other party give a written assurance of this intent to perform. In the event that a demand is made and no written assurance is given within five (5) days, the demanding party may treat this failure as the other party's intent not to perform and as a cause for possible Contract termination.
- 34. RIGHT TO INSPECT:** The City may, at reasonable times, and at the City's expense, inspect the place of business of a Contractor or subcontractor which is related to the performance of any Contract as awarded or to be awarded.
- 35. RIGHTS AND REMEDIES:** No provision in this document or in the Contractor's proposal shall be construed, expressly or by implication, as a waiver by either party of any existing or future right and/or remedy available by law in the event of any claim, default or breach of contract. The failure of either party to insist upon the strict performance of any term or condition of the Contract, to exercise or delay the exercise of any right or remedy provided in the Contract or by law, or to accept materials or services required by this Contract or by law shall not be deemed a waiver of any right of either party to insist upon the strict performance of the Contract.
- 36. SEVERABILITY:** The provisions of this Contract are severable to the extent that any provision or application held to be invalid shall not affect any other provision or application of the Contract which may remain in effect without the valid provision or application.
- 37. SHIPMENT UNDER RESERVATION PROHIBITED:** No tender of a bill of lading shall operate as a tender of the materials. Non-compliance shall conform to the termination clause set forth within this document.
- 38. SUBCONTRACTS:** No subcontract shall be entered into by the Contractor with any other party to furnish any of the material/service specified herein without the advance written approval of the City's Director of Procurement. All subcontracts shall comply with Federal and State laws and regulations which are applicable to the services covered by the subcontract and shall include all the terms and conditions set forth herein which shall apply with equal force to the subcontract, as if the subcontractor were the Contractor referred to herein. The Contractor is responsible for contract performance whether or not subcontractors are used.
- 39. SUBSEQUENT EMPLOYMENT:** The City may terminate this Contract without penalty or further obligation pursuant to A.R.S. Section 38-511 if any person significantly involved in initiating, negotiating, securing, drafting, or creating the Contract, on behalf of the City, is or becomes, at any time while the Contract or any extension of the Contract is in effect, an employee of, or a contractor to, any other party to this Contract with respect to the subject matter of the Contract. Termination shall be effective when written notice from the City's Director of Procurement is received by the parties to this Contract, unless the notice specifies a later time.
- 40. TERMINATION OF CONTRACT:** This Contract may be terminated at any time by mutual written consent, or by the City, with or without cause, upon giving thirty (30) days written notice. The City, at its convenience, by written notice, may terminate this Contract, in whole or in part. If this Contract is terminated, the City shall be liable only for payment under the payment provisions of this Contract for services rendered and accepted material received by the City before the effective date of termination.

The City reserves the right to terminate the whole or any part of this Contract due to the failure of the Contractor to carry out any term or condition of the Contract. The City will issue a written ten (10) day notice of default to the Contractor for acting or failing to act as specified in any of the following:

In the opinion of the City, the Contractor provides personnel that do not meet the requirements of the Contract;

In the opinion of the City, the Contractor fails to perform adequately the stipulations, conditions or services/specifications required in this Contract;

In the opinion of the City, the Contractor attempts to impose personnel, materials, products or workmanship of an unacceptable quality;

The Contractor fails to furnish the required service and/or product within the time stipulated in the Contract;

In the opinion of the City, the Contractor fails to make progress in the performance of the requirements of the Contract;

The Contractor gives the City a positive indication that the Contractor will not or cannot perform to the requirements of the Contract.

Each payment obligation of the City created by this Contract is conditioned upon the availability of City, State and Federal funds that are appropriated or allocated for the payment of such an obligation. If funds are not allocated by the City and available for the continued purchase of the services and/or materials provided under this Contract, this Contract may be terminated by the City at the end of the period for which funds are available. The City will endeavor to notify the Contractor in the event that continued service will or may be affected by non-appropriation. No penalty shall accrue to the City in the event this provision is exercised, and the City shall not be obligated or liable for any future payments due or for any damages as a result of termination under this paragraph.

**41. TITLE AND RISK OF LOSS:** The title and risk of loss of material or service shall not pass to the City until the City actually receives the material or service at the point of delivery, unless otherwise provided within this Contract.

**42. WARRANTIES:** Contractor warrants that all material or service delivered under this Contract shall conform to the specifications of this Contract. Mere receipt of shipment of the material or service specified and any inspection incidental thereto by the City shall not alter or affect the obligations of the Contractor or the rights of the City under the foregoing warranties. Additional warranty requirements may be set forth in this document.

## PRICE PAGE

Offerors must complete the Price Page as shown. The City requires offerors to submit pricing based upon the categories listed in the Scope of Work. For each line item, Offeror's must provide a detailed breakdown of all items (to include manufacturer and unit price) listed on the Price Page.

Item #	Description	Unit Price	Extended Total
<b>Pavement Survey and Data Collection Vehicle, as per the Scope of Work</b>			
1.	Vehicle Requirements  _____		\$ _____
	Manufacturer and Model		
2.	Technical Computer Equipment The Extended total will include the sum of items 2a. through 2f.		\$ _____
2a.	Basic Equipment and Services	\$ _____	
2b.	Subsystems	\$ _____	
2c.	GPS	\$ _____	
2d.	Laser Crack Measuring System	\$ _____	
2e.	Software	\$ _____	
2f.	Kits	\$ _____	
3.	Technical Support		\$ _____
4.	Training		\$ _____
	<b>GRAND TOTAL (Sum of Items 1, 2, 3 and 4)</b>		<b>\$ _____</b>
Optional Items			
5.	Extended Support Provide pricing for continued maintenance support beyond the initial 2 years, up to 10 years, if possible	\$ _____/year	
6.	Delete Wireless Communications/services	-\$ _____	
7.	Delete One On-Site Build Inspection	-\$ _____	

## OFFER AND ACCEPTANCE

### OFFER

#### TO THE CITY OF TUCSON:

The Undersigned hereby offers and shall furnish the material or service in compliance with all terms, scope of work, conditions, specifications, and amendments in the Request for Proposal which is incorporated by reference as if fully set forth herein.

For clarification of this offer, contact:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City State Zip

\_\_\_\_\_  
Signature of Person Authorized to Sign

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

### ACCEPTANCE OF OFFER

The Offer is hereby accepted. The Contractor is now bound to sell the materials or services specified in the Contract. This Contract shall be referred to as Contract No. \_\_\_\_\_.

**CITY OF TUCSON**, a municipal corporation

Approved as to form this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Awarded this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

\_\_\_\_\_  
As Tucson City Attorney and not personally

\_\_\_\_\_  
Mark A. Neihart, C.P.M., CPPB, A.P.P., CPM  
As Director of Procurement and not personally

## **ATTACHMENTS**

<b>Attachment A</b>	<b>FTA Terms and Conditions</b>
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