



## **REQUEST FOR PROPOSAL RFP 2022\_06\_17**

**MULTI-SPACE PARKING METERS ("MSM")  
MOBILE LICENSE PLATE RECOGNITION ("MLPR")**

**CITY OF HENDERSONVILLE, NORTH CAROLINA**

**June 17, 2022**

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<b>Due Date &amp; Time:</b>	<b>Friday, July 22, 2022 @ 3pm ET</b>
<b>Mailed Delivery Address:</b>	<b>Brian Pahle Assistant City Manager 160 Sixth Avenue East Hendersonville, NC 28792</b>
<b>With an electronic copy via Email to:</b>	<b>Geoffrey Posluszny <a href="mailto:GPosluszny@WalkerConsultants.com">GPosluszny@WalkerConsultants.com</a></b>
<b>Mandatory Pre-Proposal Meeting:</b>	<b>Thursday, June 30, 2022 @ 9 am 160 Sixth Avenue East, Second Floor Hendersonville, NC 28792</b>
<b>RFP Advertised on websites of:</b>	<b>City of Hendersonville, North Carolina North Carolina Interactive Purchasing System (IPS) North Carolina Department of Administration Historically Underutilized Businesses (HUB)</b>



City of Hendersonville, NC  
160 Sixth Avenue East  
Hendersonville, NC 28792

## PROPOSAL FORM

Mr. Brian Pahle  
Assistant City Manager  
City of Hendersonville  
160 Sixth Avenue East  
Hendersonville, NC 28792

Dear Mr. Pahle:

In accordance with the City's Request for Proposals ("RFP") dated June 17, 2022, the undersigned ("Proposer") hereby submits its proposal ("Proposal") for Multi-Space Parking Meters and Mobile License Plate Recognition (as defined in the RFP) to the City of Hendersonville, North Carolina.

### I. CONTRACT PRICE

The Proposer, having examined the Request for Proposal documents including the specifications sections, and having attended the Pre-Proposal conference, hereby offers to provide the Multi-Space Parking Meters ("MSM") and Mobile License Plate Recognition ("MLPR") for the prices stated on the attached Proposal Price Tabulation Form (Appendix A) as to both the Base Price and each Alternate that may be selected by the City. The prices stated include profit, overhead, and represent the entire price for the work stated, and recurring and/or ongoing fees are clearly stated in the price proposal form.

### II. COMPLIANCE WITH SPECIFICATIONS

The Multi-Space Parking Meters ("MSM") and Mobile License Plate Recognition ("MLPR") systems shall comply with all specifications and requirements of the RFP as stated on the attached Specifications Compliance Form (Appendix B) as modified by any clarifications, exceptions, comments, substitutions, or add-value propositions stated on such form.

### III. OTHER SUBMITTALS

The undersigned submits with this Proposal the other information that is required to be submitted by Specification Sections 001116, 111224, and 111248 and certifies that such information is true and correct in all respects.

The undersigned has emailed a copy of this proposal, including all submittals required, to Geoffrey Posluszny, [Gposluszny@WalkerConsultants.com](mailto:Gposluszny@WalkerConsultants.com) on or before the submission deadline.

### IV. NO COLLUSION AFFIDAVIT

In submitting this Proposal, Proposer hereby declares that the only person or persons interested in this Proposal as principal or principals is or are named herein and that no person other than herein mentioned has any interest in this Proposal or in the Purchase Agreement that would be entered into with the City if this Proposal is accepted; that this Proposal is made without connection with any other person, company or parties making a Proposal; and that it is in all respects presented in good faith without collusion or fraud. Proposer represents to the City that, except as may be disclosed in an

Addendum hereto, no director, officer, employee, or agent of City currently has any interest, either directly or indirectly, in the business of the Proposer, and that no director, officer, employee or agent of the City shall have any such interest at any time during the term of the Purchase Agreement should it be awarded to the Proposer.

**V. ACKNOWLEDGMENT OF RFP TERMS AS AMENDED BY ADDENDA**

The Proposer further declares that it has fully examined and understands the Request for Proposal documents dated June 17, 2022, relative to the MSM and MLPR RFP, has attended the mandatory Pre-Proposal conference, and has read and understands all the Addenda furnished prior to the opening of proposals, as acknowledged below, and that the Proposer has satisfied itself as to the requirements of, procedures regarding, and rights to be potentially awarded pursuant to the RFP.

Acknowledgment is hereby made of receipt of the following Addenda since issuance of the RFP.

<u>Addendum #</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

If any of the language or information in this Proposal conflicts with the RFP or any of the documents furnished with the RFP, the language of the RFP or of the applicable document shall govern.

**VI. TIME FOR ACCEPTANCE**

This Proposal shall remain a firm offer for 90 days after the scheduled proposal closing time and shall remain binding during such time, and if this Proposal is accepted by the City within this period, the Proposer will work in good faith to negotiate and execute a written agreement with the City within this 90-day period. The undersigned further agrees that if this Proposal is accepted, the City is under no obligation to utilize the proposer's standard agreement.

The undersigned further agrees to begin the work within ten (10) business days of executed contract and will pursue the work with an adequate work force to satisfactorily perform the work for the entirety of the Contract term.

THIS AREA INTENTIONALLY LEFT BLANK.

**VII. VERIFICATION AND CERTIFICATION OF  
AUTHENTICITY/AUTHORITY OF PROPOSAL**

Submission of this Proposal is the duly authorized official act of the Proposer, and the person executing this Proposal on behalf of Proposer is duly authorized and designated to execute this Proposal on behalf of and as the official act of Proposer, this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

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

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

Company: \_\_\_\_\_ NC Tax ID #: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Proposer: \_\_\_\_\_  
(Signature)

Sworn to or subscribed before me, this the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

(Official Seal Below)

Notary Public: \_\_\_\_\_  
(Signature)

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



## SECTION 001116

### INSTRUCTIONS TO PROPOSER

#### 1. PROJECT IDENTIFICATION AND DEFINITIONS

- A. Project is in the City of Hendersonville, North Carolina Downtown District.
- B. Owner is:  
The City of Hendersonville  
160 Sixth Avenue East  
Hendersonville, NC 28792
- C. Owner's Consultant is:  
Walker Consultants  
3545 Whitehall Park Drive, Suite 425  
Charlotte, NC 28273
- D. The City of Hendersonville may be referred to as ("City") or ("Owner").
- E. The Project is the furnishing, installation, and configuration of Multi-Space Parking Meters ("MSM") to replace the City's existing meters currently installed and operating on surface parking lots and to install new locations along Main Street, on the neighboring Avenues, and on the Spruce Lot. The project also includes the furnishing, installation, and configuration of a Mobile License Plate Recognition ("MLPR") system. Both systems will be fully integrated with the City's current iParq solution and will be configured to work and function as one cohesive system.
- F. All communication concerning this RFP must be communicated through the owner's Consultant. No direct communication with the City of Hendersonville, NC or its employees or staff pertaining to the RFP will be allowed. All communication shall be via email to: Geoffrey Posluszny, Walker Consultants @ [GPosluszny@WalkerConsultants.com](mailto:GPosluszny@WalkerConsultants.com).
- G. **Proposals are due by 3:00 pm, Friday, July 22, 2022**

#### 2. PROPOSAL SCHEDULE:

- A. RFP Released: Friday, June 17, 2022
- B. Mandatory Pre-proposal Conference: **Thursday, June 30, 2022**
- C. Questions Deadline: **Wednesday, July 6, 2022**
- D. Questions Answered: Friday, July 8, 2022
- E. Proposals Due: **Friday, July 22, 2022**

### 3. DOCUMENTS

- A. Proposal Form, Instructions to Proposers, Project Specifications, Price Form (Appendix A), and Specification Compliance Form (Appendix B) are attached.
- B. Neither Owner nor Owner's Consultant assume any responsibility for errors or misinterpretations resulting from use of incomplete sets of RFP Documents.
- C. Owner and Owner's Consultant, in making copies of RFP Documents available, do so only for purpose of obtaining Proposals on Work and do not confer license or grant for any other use.

### 4. EXAMINATION OF CONTRACT DOCUMENTS AND SITES

- A. Proposers shall carefully examine contract documents and installation locations to obtain first-hand knowledge of existing conditions. No subsequent extras will be allowed due to any claim of lack of knowledge for conditions which can be determined by examining site and contract documents.
- B. Submission of Proposal constitutes warranty that:
  - 1. Proposer and any subcontractors intended to be used have carefully and thoroughly reviewed Contract Documents and have found them complete and free from ambiguities and sufficient for purposes intended.
  - 2. Proposer and all workers, employees, and subcontractors it intends to use are skilled and experienced in type of construction represented by RFP and Contract Documents,
  - 3. Neither Proposer nor any of its employees, agents, suppliers, or subcontractors have relied on any verbal representations from Owner, Owner's Consultant, or any of their employees.
  - 4. Proposal is based solely on Contract Documents, including properly issued written Addenda, and not upon any other representation.

### 5. MANDATORY PRE-PROPOSAL CONFERENCE

- A. A mandatory in-person pre-proposal conference to discuss the project will be held at City Hall, 160 Sixth Avenue East, Second Floor, Hendersonville, NC 28792 on **Thursday, June 30, 2022, at 9:00 am**. Participation by Zoom or other electronic means will not be allowed. We will tour the installation locations including the surface parking lots, Main Street, and the Avenues to identify and confirm meter locations after the initial meeting, so plan to spend 3 hours to complete the mandatory pre-proposal conference.
- B. The Owner reserves the right to disqualify any party that does not have an officer or representative present at the pre-proposal conference.
- C. Qualified Offerors wishing to attend the pre-proposal conference should communicate their intentions, via e-mail, by **3 PM ET Monday June 27, 2022**, to Geoffrey Posluszny, Walker Consultants @ [GPosluszny@WalkerConsultants.com](mailto:GPosluszny@WalkerConsultants.com)
  - 1. Include the names of no more than two (2) attendees from each company.

2. Subcontractors are invited to attend the pre-proposal conference and are considered a separate company; therefore, may include up to two (2) attendees.
3. Attendees may also e-mail advance questions, which may be addressed during the pre-proposal meeting.
4. All information provided at the pre-proposal conference, which is not already in the bid documents, will be disseminated by an addendum.

## **6. RESOLUTION OF DISCREPANCIES, QUESTIONS AND AMBIGUITIES**

- A. All questions about meaning or intent of RFP shall be submitted via email marked as high importance and with a “read receipt” requested no later than 3 PM ET on Wednesday, July 6, 2022, to Geoffrey Posluszny, Walker Consultants @ [GPosluszny@WalkerConsultants.com](mailto:GPosluszny@WalkerConsultants.com)
  1. Questions received after that date will not be considered or answered. Only answers contained in formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
  2. Questions and their responses will be issued by Addendum and emailed to all parties that attend the mandatory Pre-Proposal Conference.
  3. Addenda will also be posted on the City’s website [www.HendersonvilleNC.Gov](http://www.HendersonvilleNC.Gov).
- B. Acknowledgement of all Addendum issued during proposal period shall be included in Proposal and shall become part of the Contract Documents. In case any Proposer fails to acknowledge receipt of any such Addendum in the space provided in the Proposal Form, its proposal will be considered as non-responsive, and will be rejected. No interpretation or correction of this RFP shall be binding unless it is stated in a written addendum.
- C. The Owner shall not be responsible for any oral representation or interpretations.

## **7. PRICE BASIS FOR PROPOSALS**

- A. The price and specification compliance forms must be completed and submitted with proposal. Both spreadsheets should also be submitted in the original Excel format.
- B. Entire Proposal shall be without interlineation, alteration, or erasure.

## **8. HISTORICALLY UNDERUTILIZED BUSINESS ENTERPRISES**

- A. The Owner is committed to the intentional utilization of Historically Underutilized Business (“HUB”) Enterprises on all construction projects. In keeping with this commitment, the Owner encourages participation from firms that are either minority firms or who have a minority partner. In addition to the use of a minority partner, if any, the Owner encourages the use of Minority and Women Owned Business Enterprises (“MWBE”) for this anticipated project.

## **9. INDEMNITY AND INSURANCE REQUIREMENTS**

Indemnity and insurance requirements are set forth in the form contract provided with this RFP.

Prior to commencing Work, the successful Contractor will be required to deliver a Certificate of Insurance evidencing the required coverage, which is stated in the bid documents.

## 10. PREPARATION OF PROPOSALS

- A. Proposers must mail, or hand deliver one (1) original and three (3) hard copies of their proposals, plus one electronic version on USB drive prior to **3 pm, Friday, July 22, 2022**, to:

City of Hendersonville  
RFP 2022\_06\_17 MSM PROPOSAL  
Attention: Brian Pahle  
160 Sixth Avenue East, Second Floor  
Hendersonville, NC 28792

Proposals that are received by the City after that date and time will not be considered, even if posted in the mail or deposited with a carrier for delivery prior to that date and time. Proposals should be enclosed in a sealed envelope marked "RFP 2022\_06\_17 MSM PROPOSAL."

- B. Send the electronic version by that date and time via email marked as high importance and with a "read receipt" requested to Geoffrey Posluszny, [GPosluszny@WalkerConsultants.com](mailto:GPosluszny@WalkerConsultants.com)
- C. Complete electronic proposal shall be in .PDF format with Price Form provided in Excel® format.
- D. Proposals must be made in form given in these RFP documents and should include a fully completed Appendix A, Appendix B, and all required submittals. Proposer must sign proposal giving full name and business address in the presence of a notary public.
- E. Proposals must include proposer's standard contract or purchase agreement along with any software license contracts. Acceptance of a proposal by a proposer should not be interpreted as the City's agreement to sign any proposer's standard agreement without modification. Final agreement terms will be negotiated with the apparent successful proposer.

## 11. SUBCONTRACTOR LISTING

- A. If Owner or Owner's Consultant, after due investigation, has reasonable objection to any proposed subcontractor, other person, or organization, either may request apparent successful proposer to submit acceptable substitute before giving notice of award. No Contractor will be required to employ any Subcontractor, other person, or organization against whom it has reasonable objection.

## 12. GOVERNING LAWS AND REGULATIONS

- A. Each proposer agrees that it shall not discriminate on the basis of race, gender, religion, national origin, age, or disability in the solicitation, selection, hiring, or treatment of employees, subcontractors, vendors, or suppliers in connection with its proposal or any resulting agreement, nor shall the proposer retaliate against any person or entity for reporting instances of such discrimination.
- B. In submitting its Proposal, Proposer declares that the only person or persons interested in the Proposal as principal or principals is or are named in the proposal and that no person other than therein mentioned has any interest in the Proposal or in the PARCS and Network Installation Purchase Agreement that would be entered into with the Owner if the Proposal is accepted; that

the Proposal is made without connection with any other person, company or parties making a Proposal; and that it is in all respects presented in good faith without collusion or fraud. Proposer represents to the Owner that no director, officer, employee, or agent of the Owner currently has any interest, either directly or indirectly, in the business of the Proposer.

### **13. DISQUALIFICATION OF PROPOSERS**

- A. In evaluating Proposals and prior to award of contract, Owner shall consider qualifications of Proposers, and whether Proposals comply with prescribed requirements.
- B. Owner or Owner's Consultant may conduct such investigations as it deems necessary to assist in evaluation of any Proposal and to establish responsibility, qualifications and financial ability of Proposers, proposed subcontractors and other persons and organizations to do work in accordance with Contract Documents to Owner's satisfaction within prescribed time.
- C. Owner reserves right to reject any Proposal that does not pass any such evaluation to Owner's satisfaction.

### **14. EVALUATION CRITERIA**

- A. An evaluation committee comprised of representatives from three different Owner departments: Parking, Administration, and Information Technology; will evaluate all timely-received proposals. All proposals will first be evaluated for responsiveness, then responsibility. All responsive and responsible proposals will be evaluated on the following criteria:
  - 1. Proposed Solutions and Timeline 15%
  - 2. Experience and Qualifications of Manufacturer 25%
  - 3. Experience and Qualifications of Installer/Distributor 25%
  - 4. Proposed cost of system including initial cost and future costs 20%
  - 5. Maintenance Support and On-Demand Services 15%
- B. The Owner may shortlist the proposers based upon responses to the above items. The Owner will notify each Proposer on the shortlist if such presentation is required. These presentations will provide an opportunity for the Proposers to respond to questions posed by the Evaluation Committee and to clarify their proposals through exhibition and discussion. The Owner will not reimburse for oral presentation or any other costs of any Proposer.
- C. The award will be made to the Proposer that submits the best overall proposal as determined by the Owner based on the foregoing criteria.
- D. Proposals shall not be subject to public inspection until a contract is awarded as specified in N.C.G.S. § 143-129.8.

### **15. TRADE SECRETS/CONFIDENTIALITY**

- A. Upon the award of a contract by the Owner, proposals are considered to be a public record except for material that a proposer identifies as confidential in the manner described below and that qualifies as "trade secret" information under N.C. Gen. Stat. 66-152 et seq., and except for material that is otherwise protected from disclosure under the North Carolina Public Records

Act (N.C. Gen. Stat. Chapter 132). With the foregoing exceptions, upon the award of a contract, the contents of each proposal shall be subject to the right of the public to inspect and to obtain copies of such material under such Act whether or not the proposal has been accepted by the Owner.

- B. To properly designate trade secret material as being confidential, proposers should submit such material in a separate, sealed envelope, marked "Trade Secret--Confidential and Proprietary Information--Do Not Disclose Except for the Purpose of Evaluating this Proposal," and should stamp the same trade secret/confidentiality designation on each page of the trade secret materials contained in the envelope.
- C. In submitting a proposal, each proposer agrees that the Owner may reveal any trade secret materials contained in such response to all of the Owner's staff and officials of the Owner who are involved in the selection process, and to the Owner's consultant and any third parties who are hired or appointed by the Owner to assist in the evaluation process.
- D. Each proposer agrees to indemnify and hold harmless the Owner and each of its officers, employees, and agents from all liability, damages and expenses, including reasonable attorneys' fees, incurred by any of them in connection with the Owner's refusal to disclose any material that the proposer has designated as a trade secret. A proposer's pricing shall not be considered a trade secret and shall be subject to public disclosure upon the presentation of a contract for consideration by the Owner's Board of Directors.
- E. Any Proposer that claims trade secret or confidentiality protection for its entire Proposal will be disqualified.

#### **16. AWARD OF CONTRACT**

- A. Owner reserves the right to reject all Proposals, to waive all informalities and to negotiate contract terms with successful Proposer, and right to disregard all nonconforming, nonresponsive, or conditional Proposals and to make award in any manner deemed in best interest of Owner.
- B. If contract is to be awarded it will be awarded to Proposer whose Proposal and products indicate to Owner that award will be in best interests of the project.
- C. The City of Hendersonville's City Council shall make the final decision as to whether and to whom a contract shall be awarded. No contract shall be binding on the City until it has been approved by City Council and signed by the City of Hendersonville and the successful proposer.

#### **END OF SECTION 001116**

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## **SECTION 111224**

### **PAY-BY-PLATE MULTI-SPACE METER (MSM)**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. 001116 – Instructions to Proposers
- B. 111248 – Mobile License Plate Recognition Specifications
- C. Appendix A – Proposal Price Form
- D. Appendix B – Specification Compliance Form

##### **1.2 REFERENCES**

- A. List of Abbreviations:
  - 1. ADA Americans with Disabilities Act
  - 2. ANSI American National Standards Institute
  - 3. ASCII American Standard Code for Information Interchange
  - 4. BOS Back Office Software
  - 5. EMV Europay, MasterCard and Visa
  - 6. ID Identification
  - 7. IP Ingress Protection
  - 8. LCD Liquid Crystal Display
  - 9. MLPR Mobile License Plate Recognition
  - 10. MSM Multi-Space Meter
  - 11. NEMA National Electrical Manufacturers Association
  - 12. NFC Near Field Communication
  - 13. P&D Pay & Display
  - 14. P2PE Point to Point Encryption
  - 15. PA-DSS Payment Application – Data Security Standard
  - 16. PbC Pay by Cell
  - 17. PbP Pay-by-Plate
  - 18. PbS Pay-by-Space
  - 19. PCI Payment Card Industry
  - 20. PDF Portable Document Format
  - 21. RAM Random Access Memory
  - 22. RMA Return Merchandise Authorization
  - 23. SaaS Software as a Service
  - 24. TCP/IP Transmission Control Protocol/Internet Protocol

### **1.3 SUMMARY**

- A. This section includes provision of all material, labor, equipment, services, and training necessary to furnish and install a fully integrated, online, real-time, multi-space parking meter system functioning as described herein.
- B. System Description
  - 1. The system includes:
    - a. Twenty-Seven (27) Multi-Space Meters (MSM)
    - b. Back Office Software (BOS)
    - c. MLPR System integration
    - d. ParkMobile integration
    - e. iParq integration
    - f. All necessary components and materials for a complete and functioning turnkey MSM system as identified in this specification.
  - 2. The City of Hendersonville has seven (7) existing meters which will be removed by the City of Hendersonville.
    - a. Azalea Lot three (3) meters
    - b. Maple Lot two (2) meters
    - c. Dogwood Lot two (2) meters
  - 3. Spruce Lot is currently contract only; however, one (1) meter will be added to the lot.
  - 4. Eight (8) meters will be located directly on Main Street.
  - 5. Eleven (11) meters will be located on the Avenues along Main Street.

### **1.4 DESIGN CRITERIA**

- A. Accuracy: Provide the following minimum accuracy levels. Calculate accuracy by dividing the accurate counts/calculations by all counts/calculation.
  - 1. Fee calculation: 100%
  - 2. Revenue amounts: 100%
  - 3. Data received and accepted by computer system as valid: 100%
  - 4. Data transmission: Less than one message re-transmission per hour.
- B. Equipment Construction: Design and construct all components and equipment with the following:
  - 1. Durable vandal and weather resistant cabinets, which maintain finish, look, integrity and functionality in the environment in which installed for a period of ten years.
    - a. Mounting holes accessible only from inside of cabinets.
    - b. Hinged cabinet doors that swing clear of bollards, walls, columns, and any other obstructions.
    - c. Modular internal components, to extent practical, for easy maintenance and replacement.
    - d. Able to be relocated without damaging aesthetics or performance of equipment.



2. Control logic and communication capability as necessary and required herein.
  3. Compatible communication ports for all communications and connections.
  4. Crystal controlled time clock/calendar that is updated at least once daily by CMS and accurate to one minute per ninety days for all primary components.
- C. User Interface: Design and construct the user interface with the following:
1. Ergonomically designed devices and user interface for ease of use by patrons.
  2. Meet the latest ADA requirements, and any local accessibility requirements, including but not limited to reach ranges, visibility of display screens, clear floor or ground space, and operable parts.
- D. Communication:
1. All applicable components are microprocessor controlled, in on-line, virtual real-time communication with BOS.
  2. All transaction data sent to BOS immediately, with communications hierarchy appropriate to need for action or response from another component, feature or subsystem.
  3. All transaction data is available to BOS workstations within 30 seconds of completing transaction at any device. Delays or functional degradation resulting from data communication between devices over BOS network is not acceptable.
  4. Integrate with MLPR enforcement system for enforcement purposes.
- E. Future System Expansion:
1. Add or remove MSMs to system.
  2. Change payment mode to either PbS or PbP.
- F. Fully operational regardless of extreme weather such as heat, sun, rain, ice, snow, freezing rain, etc.
- G. Operating temperature range of 0<sup>0</sup> Fahrenheit to +120<sup>0</sup> F and to 95% Relative Humidity.

#### **1.5 PRICE REQUIREMENTS:**

- A. Price includes the provision of all material, labor, equipment, and services necessary to furnish and install fully integrated MSM system as outlined herein.
1. Examine site
    - a. Identify in writing any constraints or conflicts regarding MSM installation.
    - b. Include cost, in writing, of rectifying such constraints or conflicts in Price Proposal.
- B. Add Alternates:
1. Preventive Maintenance and Service Contract after one-year warranty:
    - a. A separate contract awarded for Preventive Maintenance and Service after expiration of the warranty.

- b. This contract may be executed directly with a party designated and approved by manufacturer(s) to maintain and service this equipment
    - c. Provide annual pricing for five (5) years after initial one-year warranty period.
  - 2. Extended Parts Warranty:
    - a. A separate contract to extend the manufacturer's parts warranty after the expiration of the warranty.
    - b. This contract may be executed directly with a party designated and approved by manufacturer(s) to repair this equipment.
    - c. Provide annual pricing for five (5) years after initial one-year warranty period.
  - 3. Provide pricing for the above contracts valid in the year of contract anniversary. Should Owner decide to procure said contract extension(s), payment shall be due thirty (30) days prior to each contract anniversary
- C. Substantial Completion: A certificate of substantial completion will be provided when the following requirements have been satisfied.
- 1. All systems, features, and communications have passed the final acceptance testing per Section 3.2 of this document.
  - 2. All spare parts, stock material and manuals are on site and have been approved.
  - 3. All test checklists, documentation and training has been completed.
- D. Final Acceptance: Final acceptance will occur upon satisfactory completion of all work, tests, demonstrations, and training specified herein as well as successful completion of thirty-day operational test per Section 3.2 of this document

## **1.6 SIGNAGE**

- A. Provide and install sign poles and MSM signage to advise customers to pay at the meter or by phone, and to locate the meters. Initial estimate is two advisory signs with arrows per block face plus one "Pay Here" sign at each MSM. Final sign quantity, color, and design to be approved by Owner.
- B. Provide sign poles and install PbC signs and meter stickers provided by PbC vendor.
- C. Utilize rust-resistant 8-foot U-channel signposts.
- D. Utilize 18" by 24" reflective, rigid aluminum signs.

## **1.7 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Distribute to the appropriate parties any installation diagrams, details, and templates for setting, anchoring and/or mounting meters.

2. Coordinate interfaces with any other systems by others, including but not limited to iParq and ParkMobile.
- B. Pre-Installation Meeting: Conduct meeting at project site thirty (30) days in advance of time scheduled for work to proceed to review requirements and conditions that could interfere with successful performance. All parties concerned with installation, including communications, concrete work, or others who are required to coordinate work are required to attend. Include Owner or Owner's Representative. At a minimum, cover:
1. Concrete and Masonry work.
  2. Review schedule.
  3. Review testing and acceptance procedures.
- C. Coordinate data communication, internet connectivity, and network requirements with Owner or Owner's IT Representative.

#### **1.8 PROPOSAL SUBMITTALS - TO BE INCLUDED WITH RESPONSE**

- A. Appendix A – Proposal Price Form:
1. Total system cost and per unit cost of each component.
  2. Recurring fees including SaaS and Cellular monthly charges.
  3. Recommended Spare Parts.
  4. Submit in PDF format included in your proposal
  5. Submit in Excel format on USB Drive and via Email per Section 001116
- B. Appendix B – Specification Compliance Form
1. Complete and submit an all-inclusive Specification Exception List (including substitutions), identifying any substantive non-compliance with specification requirements.
  2. Submit in PDF format included in your proposal
  3. Submit in Excel format on USB Drive and via Email per Section 001116
- C. Substitutions:
1. It is recognized that there are variations in equipment between manufacturers. Where functional performance, features or quality of system varies materially from that specified, submit a Request for Substitution identifying substitution being proposed. This submittal may be accompanied by catalog sheets, brochures, and technical specifications of the proposed system.
- D. Product Data:
1. Product description for each component including the following:
    - a. Detail of user interface, including description of display screen.
    - b. Operating temperature and humidity ranges.
    - c. Housing material and access panel location.

- d. Installation and mounting requirements.
  - e. Solar-panel performance and requirements.
  - f. Description of vault locking system.
  - g. List of modular components that may be replaced by hand.
  - h. List of components that require tools for replacement, and identify which tools are required.
- 2. Description of the BOS software, including the following:
  - a. Configuration diagram.
  - b. Software platforms and programming language.
  - c. Communication protocol, polling procedures, and transaction message flow from peripheral devices to and through CMS.
  - d. Communication failure/error identification and recovery.
  - e. Fault tolerance.
  - f. Back-up procedures.
  - g. Data storage and retrieval procedures.
- 3. Sample Screenshots and Reports:
  - a. Screenshots of dashboards.
  - b. Screenshots of payment process.
  - c. Sample revenue and transaction reports.
  - d. Sample maintenance reports.
- E. List manufacturer of each primary component of system.
- F. Manufacturer Qualifications and Information
  - 1. Provide the following information:
    - a. Name and address of company.
    - b. Name and contact information (address, email, and phone number) of primary contact(s) for this project.
  - 2. In continuous operations for previous five (5) years.
  - 3. Similar system and system integration installed in three (3) or more USA locations of similar size and complexity. Provide the following for each installation:
    - a. Name and address of project.
    - b. Contact name, telephone number and email address.
    - c. Date of installation.
    - d. Description of equipment and quantities.
- G. Installer, subcontractor, and/or Service Provider Qualifications: If different than Manufacturer, provide documentation:
  - 1. Proven ability to provide installation and/or service and support after installation, meeting minimum requirements as specified herein.

2. Continuously worked with equipment manufacturer, including providing installations and/or service, for minimum of three (3) years.
3. Approved in writing by manufacturer.
4. Documentation of manufacturer's installation and/or service training within previous two (2) years.
5. Similar system installed and/or maintained in three (3) or more USA locations of similar size and complexity. Provide the following for each installation:
  - a. Name and address of project.
  - b. Contact name, telephone number and email address.
  - c. Date of installation.
  - d. Description of equipment, quantities, and vendor responsibility.
6. Manufacturer approved service center located within four hours' drive of installation.
  - a. Provide street address for verification.
  - b. Provide number of service technicians at this location.

H. Warranty:

1. Submit copy of warranty (per Section 1.12 of this document) and explanation of any instances which may impact warranty coverage.
  - a. List your company's recognized Holiday schedule.
2. Submit RMA procedures.
3. Submit regular service hours and hourly rates, as well as other hours of availability and corresponding rates.
4. Submit maximum remote and on-site service response times from receipt of the request.

**1.9 POST-AWARD INFORMATIONAL AND CLOSEOUT SUBMITTALS**

- A. All submittal approvals, comments and rejections will be returned to the Contractor by the Owner's designated representative with requests for resubmittal as appropriate. Resubmit as required until submittal is approved by the Owner's designated representative.
- B. Equipment Manuals to be submitted 14 days prior to commencement of testing, per section 3.4
- C. Samples: Submit samples of reports, receipts, and other items to be selected by Owner within 30 days of contract.

**1.10 MAINTENANCE MATERIAL SUBMITTALS**

- A. Stock: Furnish the following operating stock items prior to commencement of operational testing.
  1. Ten rolls of receipt paper per MSM. Owner must approve color and artwork of receipts.
  2. One spare coin vault for every MSM.
  3. One spare bill vault for every MSM.

B. Lock and Key Requirements:

1. Identical locks and keys for all like equipment but unique to this project so that keys from other projects will not provide access.
2. Provide Owner with three (3) sets of each key below:
  - a. Maintenance key to open MSM
  - b. Key to remove vault from MSM
  - c. Key to open vault in money control room.
3. If a special tool is required to perform any function or maintenance, provide three (3) of these tools.

**1.11 QUALITY ASSURANCE**

- A. All components and installation to comply with all laws, ordinances, codes, rules, and regulations of public authorities having jurisdiction over this part of the work. It is the responsibility of the Contractor to meet these and all other current technical, performance, and safety standards that are applicable to all components and to the entire system, even when not specifically referenced.
- B. Open-architecture system where all interfaces (hardware and software) conform to national and International Organization for Standardization (ISO) standards.
- C. All materials and equipment listed, labeled, or certified by a nationally recognized testing laboratory to meet Underwriters Laboratories, Inc. (UL) standards, where test standards have been established.
  1. Equipment and materials which are not covered by UL Standards may be considered, provided equipment and material is listed, labeled, certified, or otherwise determined to meet safety requirements of a nationally recognized testing laboratory.
  2. Equipment of a class for which no nationally recognized testing laboratory accepts, certifies, lists, labels, or determines to be safe, will be considered if inspected or tested in accordance with national industrial standards, such as NEMA, IP, or ANSI. Evidence of compliance includes certified test reports and definitive product data. Such equivalent certification may include CE Marking Certification.
- D. Equipment housings, conduits, and junction boxes exposed to weather (any location not in a conditioned environment) will meet or exceed NEMA 3SX or IP54 standards to be moisture-proof and provide sufficient protection so that the components continue to function without moisture, dust, particle, heat, or cold-related interruption. Components that do not meet NEMA 3SX or IP54 standards or better may be considered if implemented with supplemental environmental controls to sufficiently protect equipment.

**1.12 DELIVERY, STORAGE AND HANDLING REQUIREMENTS**

- A. Contractor is responsible for insuring all shipped items. Any items damaged during shipping will be replaced and shipped to the project site, by expedited means if requested, at no additional cost to the Owner.

- B. Owner will provide a designated storage/staging area for MSM equipment that has not been installed. Location to be determined after contract award.
- C. It is the Contractor's responsibility to protect the equipment from theft and damage until final acceptance. Contractor will replace the equipment at no additional cost to the Owner.
- D. Deliver equipment to site in manufacturer's original containers to prevent damage and marked for easy identification.

#### **1.13 WARRANTY**

- A. General: Equipment and installation (100% parts and labor) for one (1) year from date of final acceptance by Owner or Owner's Representative. System maintained and serviced against all malfunctions due to manufacturing or installation defects at no cost to Owner during warranty period, including preventive maintenance per manufacturer's recommendations or as necessary to keep equipment in good working order. Software support provided during warranty period to include all software upgrades at no additional cost to Owner.
  - 1. Warranty period commences after Contractor has demonstrated satisfactory performance of a functioning MSM system and after the 30-day Operational Test.
  - 2. Maintain a log of all maintenance, preventive maintenance and repair work performed under warranty and provide to Owner or Owner's Representative at end of warranty period.
- B. Warranty response period:
  - 1. Monday through Friday, 8:00 am to 5:00 pm excluding holidays.
  - 2. Response time from initiation of trouble call, to on-site response by qualified service technician
    - a. Immediate telephone support available from 8:00 am – 5:00 pm Monday-Friday.
    - b. Next-day on-site technical support no-later than 12 noon the following weekday.
- C. If Contractor is not available for above response, Owner or Owner's Representative may affect repairs with no impact on warranty. Pre-qualify appropriate Owner or Owner's Representative to perform repairs and identify types of repair each trained individual is qualified to perform after training of Owner personnel.
- D. Replace items taken from spare parts inventory during warranty period at no additional cost to Owner.
- E. Preventative Maintenance Service during the Warranty Period:
  - 1. Provide preventative maintenance services for all systems throughout the warranty period. Preventative maintenance procedures and frequencies are defined within the Manufacturer's recommended maintenance procedures manual.
  - 2. Preventative maintenance services include but are not limited to inspection, testing, necessary adjustment, lubrication, calibration, parts cleaning, communication system

- maintenance, server administration and database administration of the hardware provided as part of this project by the Contractor.
3. Perform all preventative maintenance at non-peak periods during regular business hours.
- F. Software Support during the Warranty Period:
1. Make available to the Owner normal software improvement releases (updates) as they become available at no additional cost to the Owner.
  2. Provide all software patches and updates free of charge during the warranty period; however, the Owner has right of refusal.
  3. Seven (7) calendar days prior to all software modifications, patches, updates, and upgrades, provide accurate and complete documentation that describes:
    - a. Patch/update release designation.
    - b. Proposed date and time of implementation.
    - c. Detailed description of what the patch/update accomplishes.
    - d. Test plan that shows the change has been successfully tested and has passed internal unit, end-to-end testing.
    - e. Full disaster recovery procedures that return the system to its pre-patch/update condition
  4. Provide operating system support and database administration services including adherence to the recommended operating system patches and updates as they are made commercially available by the operating system developer.
  5. Coordinate the testing and implementation of all patches and updates with the Owner.
  6. Support upgrades to the application based on operating system patch and upgrade requirements. For example, if run on a Microsoft operating system, the software can be patched according to the Microsoft patch and upgrade schedule without breaking any application. If Microsoft decommissions an operating system, the Contractor must be capable of releasing code compatible with next operating system upgrade prior to Microsoft ending support for current operating system.
  7. If at any time the Contractor ceases to do business or ceases to make the software product commercially available, the Owner will assume full ownership of the software. Thirty days prior to ceasing to do business, the Contractor will provide the most current version of the software source code to the Owner.
  8. Provide corrective patches and upgrades in the event security vulnerability or system availability issues are discovered.

## **PART 2 - PRODUCTS**

### **2.1 MSM BACK-OFFICE SOFTWARE**

- A. Microprocessor controlled, in on-line, virtual real-time communication.
1. MSM wirelessly communicates complete transaction log to BOS. In event of communication failure, MSMs continue to operate in off-line mode and store a minimum of 1,000 transactions, or have sufficient system redundancy, to insure availability of



- transaction data upon restoration of BOS. In event of failure during communication, an error-checking and recovery routine is employed to prevent corruption of data.
2. Describe the minimum, maximum, and average amount of time in seconds the meter will take to transmit transactions to the BOS, including what parameters or conditions will affect transmission times.
- B. Hosted system, capable of operating with proper user ID and password, to all authorized users.
1. Provide continual software updates at no additional fees for the life of the contract.
  2. Provide field programmable functions of each meter from BOS (password protected), including rate structures (from BOS only), with all programming changes reported in daily log.
  3. Maintain a secure connection while active, and automatically log-off after programmable period of inactivity.
  4. Remote access to BOS over standard TCP/IP connection (may use web browser-based applications).
  5. Browser-based user-interface modules utilize client/server technology or equivalent. The following general requirements apply to all components or modules:
    - a. Windows-based graphical user interface.
    - b. Allow for both standard and custom report formats.
    - c. Adequate security to allow for different classifications of users.
  6. Provide all updates to the BOS, to ensure full compatibility with the meters and the system, at no additional cost to the Owner for the life of any contract relating to the meters.
  7. Integrate with iParq permit and enforcement system.
  8. Integrate with MLPR enforcement system.
  9. Integrate with ParkMobile for combined payment and financial reporting.
- C. Security
1. Utilize protocols and passwords that prevent unauthorized access to software and hardware and manipulation of data and reports, including individual transactions.
  2. Include multiple levels of access authorization to all operational, administrative and reporting functions and provide the following security features:
    - a. Define individual user and group-based security.
    - b. Ability to assign a unique user ID and password for each person authorized to use system.
    - c. Ability to establish an expiration period for passwords and periodically change that password for each authorized user ID.
    - d. Ability to disable a user ID following successive log-on failures exceeding a specific limit.
    - e. Ability to view and report user and group level security rights and create user-defined fields.
    - f. Ability to de-activate codes for former users and internal and external customers.

3. Provide Owner with a complete list of initial installation administrator usernames and passwords for all authorized users.
  4. Password protected MSM subsystems to restrict access to individual functions of each subsystem:
    - a. Revenue Monitoring, Control, and Reporting.
    - b. Maintenance Monitoring, Control, and Reporting.
  5. Utilize credit and debit card acceptance hardware, software, and other system components that are PCI DSS and EMV compliant.
- D. MSM Equipment Monitoring.
1. Capable of performing and wirelessly reporting the results of a self-diagnostic routine at programmable times or intervals. Self-diagnostic routines verify that MSM functions are working properly. Functions to be checked include accuracy of fee calculation, clock, and card acceptance. MSM will require database communications machine to machine.
  2. Warning alarms tracked, displayed, and communicated in real time to workstations and cell phones for the following conditions:
    - a. Machine failure.
    - b. Low battery.
    - c. Dead battery.
    - d. Component trouble and/or failure.
    - e. Receipt jam.
    - f. Card jam.
    - g. Tampering.
    - h. Vault near capacity.
    - i. Vault full.
    - j. Door Open.
    - k. Receipt paper low.
    - l. Receipt paper empty.
    - m. No transactions for a defined period.
  3. Monitor electrical circuits and frequency of operational errors in components to identify maintenance actions to prevent failure of a component.
  4. Monitor the transmission of repeated messages that may indicate possible problems with the system.
  5. Display abnormal status conditions as a visual alarm on the workstation screen, accompanied by an audible alarm.
    - a. The display continues to flash until the abnormal condition is corrected. The audible alarm continues until turned off by operator.
    - b. Record the abnormal status condition and the acknowledgement of the alarm, including time, workstation, and operator.

6. Record and store all meter alarms and repair activity.
- E. PbP Enforcement Integration:
1. During enforcement sessions, all transaction data is available to CMS workstations and mobile enforcement devices within thirty seconds of completing transaction at any device. Delays or functional degradation resulting from data communication between devices over CMS network is not acceptable.
  2. Provide web-based, viewable, and printable reports of all meter and mobile payments for enforcement purposes, including time purchased, purchase amount and time of expiration.
  3. Ability to integrate MSM data with mobile and/or handheld units for enforcement purposes, providing street or lot #, machine #, plate #, time purchased, purchase amount and time of expiration.
- F. MSM Reports: Provide the following ASCII file reports which can be displayed on a monitor or printed on a printer:
1. Daily Event Log - A listing of any changes to the system and users who made the changes, system alarms and system log on/log offs.
  2. Meter alarms and repair activity sortable by time, date, meter, operator, and/or type of alarm.
  3. Maintenance history report of each meter.
  4. Transaction Report - A listing of each transaction processed by the MSM, including and sortable by:
    - a. Time/date/day of week.
    - b. Duration.
    - c. Payment amount.
    - d. Card type.
    - e. Plate number.
  5. Daily Summary Report - A daily summary of all MSM activity, including daily grand totals of Transaction Report data.
  6. Monthly Summary Report – A monthly summary of all MSM activity, including monthly grand totals of Transaction Report data.
  7. Parking Value/Type Report - Stratification based upon the value of transactions processed by payment type, provided for each rate structure. This report is used for revenue analysis, rate analysis, management planning, and statistical information.
  8. Revenue Report – Total revenue for a selected timeframe, including and field sortable by:
    - a. Time of day.
    - b. Plate number.
    - c. Card type.
    - d. Duration.

9. MSM Usage Reports sortable by:
  - a. Time of day.
  - b. MSM
  - c. Plate number.
  - d. Card type.
  - e. Duration of time.
10. Add-time report – Provide a list of transactions conducted by same customer, to add time at the meter, using ID code.
11. Pre-payment report – Provide a list of transactions conducted in advance of the session start time.
12. Rejected credit cards per meter, broken out by reason for rejection.
13. Number of meters and % of inventory out-of-order over a specified time period.
14. Either periodically or on demand, BOS downloads and sends electronically, revenue reports for integration into Owner's financial department via TCP/IP connection to designated computer network in Microsoft Excel or approved equivalent.

G. Rate Structure:

1. Remote programming of MSM parking rates, with rate tables in a windows format and easily changed by the Owner.
2. Day, evening, night, and weekend rates.
3. Weekly and monthly permit rates.
4. Grace periods (i.e., 15 minutes free).
5. Flat rates for events.
6. Holiday rates.
7. Residential rates.
8. Allow for initial payment and/or adding time at any MSM in system.
9. Provide a unique ID code to enable customers to add time to their transaction.
10. Programmable time slots as small as ten minutes.
11. User defined maximums (2-hour, 4-hour, 12-hour, 24-hour, etc.)
12. Submit the minimum number of programmable time slots per day and per week.
13. Ability to program any subset of meters using any combination of standard and user-defined filters and an effective date.
14. Automatic adjustment for daylight saving time and leap year in fee calculations.

**2.2 MULTI-SPACE METER (MSM)**

- A. Operational Modes: PbP with ability to convert to PbS or P&D modes if so desired at a future date.
  1. PbP sample operating sequence:
    - a. MSM prompts customer to enter plate number.
    - b. MSM prompts customer to select amount of time to park.
    - c. MSM displays required fee and prompts customer to make payment.
      - A) Accept Coin, Bill, and Credit Card Payment Methods.

- B) Accept U.S. coins and currency.
- d. MSM processes payment, makes change as necessary, and offers receipt.
- e. Receipt to be FACTA compliant.

B. Housing

1. Cabinets and component brackets fabricated from 100% high grade stainless or cold rolled steel.
2. Durable, vandal, graffiti, corrosion, and weather resistant, and able to maintain finish, look, integrity and functionality in the environment in which installed for a period of ten years.
3. Mounting holes are only accessible from the inside of the cabinet.
4. Internal door hinges.
5. External lighting to assist patrons at night.

C. Internal Components

1. Modular in nature and easily removed/replaced by hand.
2. Separate coin and bill vault.
  - a. Internal vault release key.
  - b. Vault opening (cash room) key.
3. Corrosion resistant connections and connection boxes with unique installations so that a component or connector cannot be connected incorrectly.
4. Provide heating source for extreme cold temperature.

D. Informational/Instructional Displays

1. Liquid Crystal Display (LCD) Color Display Screen
  - a. Display current time of day (HH:MM).
  - b. Acknowledgement of payment, buttons, numbers, letters, and/or symbols pressed by customer.
  - c. Easily readable alpha-numeric display to communicate messages to user.
  - d. Instructional prompts guide customer through payment process such as: "Please enter plate number", "Please enter desired time to park", "Please insert credit card", "Authorizing" and "Thank you".
  - e. Capable of recognizing user errors and providing corrective guidance.
  - f. Remotely programmable via the CMS.
  - g. Backlit, automatically adjusting to external light conditions, with the contrast adjustable by the Owner.
  - h. UV resistant (non-yellowing) Lexan-like material to protect the LCD.
  - i. Display (scroll) rates and regulations for every time slot programmed for the day.
  - j. Ability to display logos and graphics.
  - k. Provide on-screen menu or display for technicians to analyze problems on-site, and provide, at minimum, the following information regarding the meter's current operating status:
    - 1) View the current assigned meter configuration and software version.

- 2) View the battery levels and the solar panel charge level (if solar).
    - 3) Test the operating condition of the card reader.
    - 4) Test the integrated wireless communications.
  2. Fixed graphics containing customer instructions for user-friendly operation.
    - a. Operating procedure progresses from left to right and top to bottom.
    - b. Numbered corresponding instructions are pictorially illustrated.
    - c. Customizable by Owner.
  3. User Interface
    - a. Weatherproof keypad or and/or user buttons unaffected by temperature, sun, rain, ice, snow, freezing rain, etc.
    - b. Capable of operating in up to three different languages at the push of a button.
- E. Card Reader
  1. Accept the following cards:
    - a. VISA
    - b. Master Card
    - c. American Express
    - d. Discover
    - e. Bank Debit Cards with Credit Card Logo
    - f. Contactless Cards and NFC-Based Mobile Wallet Applications
  2. Utilize credit and debit card acceptance hardware, software, and other system components that are PCI-DSS and PCI-P2PE compliant.
    - a. PCI-DSS compliant Systems: For all devices and systems that are in scope of PCI-DSS compliance as defined within the latest version of PCI-DSS, provide verifiable proof that all such devices are either
      - 1) A currently validated PA-DSS Application, suitable for new installations, as listed on the PCI-DSS website.
      - 2) Part of a Level-1 Audited Service Provider payment system. Suitable proof must be a listing on the VISA or MasterCard Service Provider web site, or an audited and signed Attestation of Compliance (AOC) showing a successful Service Provider Audit performed by a Qualified Security Assessor (QSA)
  3. All devices that accept a payment card must accommodate PCI P2PE payments. Devices that are not PCI-P2PE will not be accepted:
    - a. Encryption performed at the card reader.
    - b. Credit card authorization in real time.
    - c. Maximum average authorization time for credit card transactions: Ten (10) seconds.
    - d. Provide "hold and send" feature only when the communication network is down, or not available and credit card payments cannot be authorized in on-line mode.
    - e. Confirm and provide record formats required by Owner's financial institution.
    - f. Identify all required additional services necessary for processing and the associated costs.

4. Provide the user the ability to confirm purchase prior to processing card.

F. Power Supply

1. Solar-powered battery life of 36 months.
2. Commercially available battery without voiding warranty.
3. Ability to replace battery in less than two minutes with no tools required.
4. Programmable low battery alerts.
5. Separate backup battery to sustain clock, calendar, audit information and RAM in the event of a system failure or during battery replacement.

G. Communication

1. Offeror must perform independent site evaluation.
2. It is the responsibility of the vendor to test and confirm reliable power and communication from all MSM locations.

H. Printer

1. Capable of printing standard and variable length receipts and reports.
2. Receipt offered and issued upon completion of transaction, if selected by payee.
3. Minimum information provided on receipt:
  - a. Amount of transaction.
  - b. Unique identification number for adding time, adjudication, and audit control.
  - c. Plate number.
  - d. Time and date purchased.
  - e. Expiration time and date.
  - f. Meter number.
4. Ability to replace ticket roll in less than one minute with no tools.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. Install MSM in accordance with manufacturer's recommendations.
- B. Installation and Start-Up: Contractor is responsible for installation of all Contractor supplied equipment and its interfacing and interconnection with Owner supplied equipment.
- C. Contractor is responsible for all software and communications by all computers and peripheral devices.
- D. Provide dust and noise protection in strict accordance with equipment manufacturer's recommendations.

- E. Owner or Owner's Representative may observe installation process and stop the work at any time throughout the process.

### **3.2 FIELD QUALITY CONTROL**

- A. Provide an Acceptance Testing Plan to demonstrate the functionality of the system.
  - 1. Include demonstrations of compliance with all specifications, contractual compliance, definitions of all test objectives, participant responsibilities, documentation of tests and procedures for dealing with failures during test.
  - 2. Detail tests for every functional requirement of the MSM system, including PbC integration.
    - a. Include checklist for specified supplies, spare parts, training operation and training manuals.
    - b. Provide space for acceptance by Contractor and Owner or Owner's representative.
  - 3. Confirm that all specified features are provided and fully operational before Acceptance Testing.
  - 4. Notify Owner or Owner's Representative in writing at least one week prior to each official test session. If a test is not successful, correct noted deficiencies and advise Owner or Owner's Representative, at least two days in advance, that test session is ready to resume.
  - 5. Owner or Owner's Representative may witness tests.
- B. Passing Acceptance testing, even if performed in the presence of the Owner or Owner's Representative, does not relieve the Contractor of the responsibility to provide a system in accordance with the Specifications.
- C. Promptly correct all problems encountered at no cost to the Owner.
- D. Thirty (30) Day Operational Test and Final Acceptance
  - 1. After go-live date, the Owner will conduct an operational test for thirty (30) days.
  - 2. Performance Standards:
    - a. System is fully operational without downtime or programming problems for the complete monthly reporting cycle. For each down-time period of between one hour and eight hours, or programming problems that delay the report cycle, two days will be added to the test duration.
    - b. All reports correlate 100% with coin and credit card reconciliation.
  - 3. Maintain detailed records and a logbook of all tests, events, and issues to be provided to the Owner upon completion of the tests.

### **3.3 INSTRUCTION AND TRAINING**



- A. Fully instruct the Owner's designated personnel in the operation, adjustment, and maintenance of all MSM products, equipment, and systems.
- B. Coordinate scheduling of on-site and in-person instructional classes with Owner's designated personnel to avoid conflicts and peak-period personnel demands.
- C. Submit a proposed instruction schedule prior to equipment installation. Owner will tentatively approve or suggest changes to the training schedule.
- D. Ample time should be allotted within each session for the instructor to fully describe and demonstrate all aspects of the MSM system and allow Owner personnel to have hands-on experience with the MSMs.
- E. All instruction courses will consist of classroom instruction and actual "hands-on" experience. Classes will be set up in a room designated by the Owner.
- F. Provide experienced instructors that speak fluent English in a clear precise manner.
- G. Provide all documentation required for instructing Owner personnel. The Owner retains the right to copy training materials as frequently as required for ongoing internal use only.
- H. Provide an instructional notebook or user's manual to accompany every instruction course. Submit a hard copy and electronic version of all manuals (operation and maintenance) written in common English with appropriate photos, diagrams, and schematics to supplement the text.
- I. Training categories:
  - 1. Maintenance.
  - 2. Enforcement.
  - 3. Finance/Administration.
- J. Provide hard copies and electronic operation and maintenance manuals for all components.

**END OF SECTION 111224**

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## **SECTION 111248**

### **MOBILE LICENSE PLATE RECOGNITION (MLPR)**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. 001116 – Instructions to Vendors
- B. 111224 – Multi-Space Meter Specification
- C. Appendix A – Proposal Price Form
- D. Appendix B – Specification Compliance Form

##### **1.2 REFERENCES**

- A. List of Abbreviations:
  - 1. BOLO Be on the Lookout
  - 2. BOS Back Office Software
  - 3. ID Identification
  - 4. OCR Optical Character Recognition
  - 5. MSM Multi-Space Meter
  - 6. LPR License Plate Recognition
  - 7. PC Personal Computer
  - 8. PbC Pay by Cell
  - 9. PbP Pay-by-Plate
  - 10. PEO Parking Enforcement Officer
  - 11. RH Relative Humidity
  - 12. RAM Random Access Memory
  - 13. RMA Return Merchandise Authorization
  - 14. SSM Single-Space Meter

##### **1.3 SUMMARY**

- A. Provide all material, labor, equipment, services and training necessary to furnish and install fully integrated on-line, real-time mobile license plate recognition system functioning as described herein.
- B. System Description
  - 1. The mobile LPR system includes:

- a. LPR Cameras
- b. Vehicle-Installed Laptop with cellular modem
- c. Multi-Space Meter System Integration
- d. iParq integration
- e. ParkMobile integration
- f. All necessary components and materials for a complete and functioning turnkey MLPR system as identified in this RFP.
- g. MLPR system components to be installed in Owner-Provided enforcement vehicle.
  - 1) Vehicle Year, Make, and Model to be provided upon contract award.

#### **1.4 DESIGN CRITERIA**

##### **A. LPR System Performance**

- 1. Achieve a capture rate of 99% for all non-exception vehicles, as defined in this section, meaning that ninety-nine percent (99%) of all license plates within range of being read by the LPR cameras are identified as license plates for the sake of reading and recording each plate's characters.
- 2. Achieve an N Factor rating of 96%, meaning that the LPR system reads all captured license plate characters, exclusive of stacked characters, correctly, ninety-six percent (96%) of the time for all non-exception vehicles as defined within this section. Missing, misread, or additional characters as determined by the LPR system, are counted against the read accuracy (i.e., if a license plate contains six standard characters "ABC123", then N=6. Therefore, in order for the system to achieve an N read, the system reads the LPN "ABC123" exactly). Additional characters added before or after the license plate characters count against the read rate. (i.e., "1ABC123" does not constitute an N read).
- 3. Achieve an N-1 Factor rating of 98%, meaning that the LPR system reads all but one license plate character, exclusive of stacked characters, correctly, ninety-eight percent (98%) of the time for all non-exception vehicles as defined within this section.
- 4. Exception vehicles do not count against the accuracy of the LPR system. For the purposes of the LPR performance requirements an exception vehicle is defined as:
  - a. Any vehicle whose license plate is obstructed, obscured, or encroached upon by a foreign object.
  - b. Vehicles that contain excessive graphics and advertising such that it is impossible for the LPR system to determine which graphics belong to the license plate and which graphics do not.
  - c. Vehicles with no license plate.
  - d. Vehicles with temporary cardboard (non-reflective) "Dealer Plates."
  - e. Motorcycles.
- 5. Provide a means, subject to approval by the City, to remotely score the LPR system to ensure it meets the performance requirements. Provide all software needed to test the LPR system's performance, downloadable to a standalone PC used for testing.

##### **B. Fully operational regardless of extreme weather such as heat, sun, rain, ice, snow, freezing rain, etc.**

- C. Operating temperature range of -30 to +55 Celsius and to 95% RH.

#### **1.5 PRICE REQUIREMENTS:**

- A. Price includes the provision of all material, labor, equipment, and services necessary to furnish and install fully integrated mobile LPR system as outlined herein.
- B. Add Alternates:
  - 1. Preventive Maintenance and Service Contract after one-year warranty:
    - a. A separate contract awarded for Preventive Maintenance and Service after expiration of the warranty.
    - b. This contract may be executed directly with a party designated and approved by manufacturer(s) to maintain and service this equipment
    - c. Provide annual pricing for five (5) years after initial one-year warranty period.
  - 2. Extended Parts Warranty:
    - a. separate contract to extend the manufacturer's parts warranty after the expiration of the warranty.
    - b. This contract may be executed directly with a party designated and approved by manufacturer(s) to repair this equipment.
    - c. Provide annual pricing for five (5) years after initial one-year warranty period
  - 3. Provide pricing for the above contracts valid in the year of contract anniversary. Should Owner decide to procure said contract extension(s), payment shall be due thirty (30) days prior to each contract anniversary
- C. Substantial Completion: A certificate of substantial completion will be provided when the following requirements have been satisfied:
  - 1. All systems, features and communications, have passed the SAT per Section 3.2 of this document.
  - 2. All spare parts, stock material and manuals are on site and have been approved.
  - 3. All test checklists, documentation and training has been completed.
- D. Final Acceptance: Final acceptance will occur upon satisfactory completion of all work, tests, demonstrations, and training specified herein as well as successful completion of sixty-day operational test per Section 3.2 of this document.

#### **1.6 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Distribute to the appropriate parties any installation diagrams, details, and templates for setting, anchoring and/or mounting meters.
  - 2. Coordinate interfaces with any other systems by others, including but not limited to iParq and ParkMobile.

**1.7 PROPOSAL SUBMITTALS - TO BE INCLUDED WITH RESPONSE**

**A. Appendix A – Proposal Price Form:**

1. Total system cost and per unit cost of each component.
2. Recurring fees including SaaS and Cellular monthly charges.
3. Recommended Spare Parts.
4. Submit in PDF format included in your proposal
5. Submit in Excel format on USB Drive and via Email per Section 001116

**B. Appendix B – Specification Compliance Form**

1. Complete and submit an all-inclusive Specification Exception List (including substitutions), identifying any substantive non-compliance with specification requirements.
2. Submit in PDF format included in your proposal
3. Submit in Excel format on USB Drive and via Email per Section 001116

**C. Substitutions:**

1. It is recognized that there are variations in equipment between manufacturers. Where functional performance, features or quality of system varies materially from that specified, submit a Request for Substitution identifying substitution being proposed. This submittal may be accompanied by catalog sheets, brochures, and technical specifications of the proposed system.

**D. Product Data:**

1. Product description for each component including the following:
  - a. Detail of user interface.
  - b. Operating temperature and humidity ranges.
  - c. Camera housing materials.
  - d. Installation and mounting requirements.
  - e. List of modular components that may be replaced by hand.
  - f. List of components that require tools for replacement, and identify which tools are required.
2. Description of the BOS software, including the following:
  - a. Configuration diagram.
  - b. Software platforms and programming language.
  - c. Communication protocol, polling procedures and transaction message flow from peripheral devices to and through CMS.
  - d. Describe how data and license plate images are transferred in real time.
  - e. Describe the minimum, maximum, and average amount of time in seconds the system will take to transmit and receive images and data, including what parameters or conditions will affect transmission times and what percentage of

- each type of transmission can be expected to be transmitted within the average transmission time.
  - f. Describe any file limitations in downloading, sending, and storing license plate images.
  - g. Communication failure/error identification and recovery.
  - h. Fault tolerance.
  - i. Back-up procedures.
  - j. Data storage and retrieval procedures.
3. Sample screenshots and reports:
- a. Screenshots of dashboards.
  - b. License plate images.
  - c. Databases.
  - d. Enforcement reports.
  - e. Statistical reports.
- E. List manufacturer of each primary component of system.
- F. Manufacturer Qualifications and Information
- 1. Provide the following information:
    - a. Name and address of company.
    - b. Name and contact information (address, email, and phone number) of primary contact(s) for this project.
  - 2. In continuous operations for previous five (5) years.
  - 3. Similar system and system integration installed in three (3) or more USA locations of similar size and complexity. Provide the following for each installation:
    - a. Name and address of project.
    - b. Contact name, telephone number and email address.
    - c. Date of installation.
    - d. Description of equipment and quantities.
- G. Installer, subcontractor, and/or Service Provider Qualifications: If different than Manufacturer, provide documentation:
- 1. Proven ability to provide installation and/or service and support after installation, meeting minimum requirements as specified herein.
  - 2. Continuously worked with equipment manufacturer, including providing installations and/or service, for minimum of three (3) years.
  - 3. Approved in writing by manufacturer.
  - 4. Documentation of manufacturer's installation and/or service training within previous two (2) years.
  - 5. Similar system installed and/or maintained in three (3) or more USA locations of similar size and complexity. Provide the following for each installation:
    - a. Name and address of project.
    - b. Contact name, telephone number and email address.
    - c. Date of installation.
    - d. Description of equipment, quantities, and vendor responsibility.
  - 6. Manufacturer approved service center located within four hours' drive of installation.

- a. Provide street address for verification.
- b. Provide number of service technicians at this location

H. Warranty:

- 1. Submit copy of warranty (per Section 1.10 of this document) and explanation of any instances which may impact warranty coverage. Note that a two-year warranty is required.
  - a. List your company's recognized Holiday schedule.
- 2. Submit RMA procedures.
- 3. Submit regular service hours and hourly rates, as well as other hours of availability and corresponding rates.
- 4. Submit maximum remote and on-site service response times from receipt of the request.

**1.8 INFORMATIONAL AND CLOSEOUT SUBMITTALS**

- A. All submittal approvals, comments and rejections will be returned to the Contractor by the Owner's designated representative with requests for resubmittal as appropriate. Resubmit as required until submittal is approved by the Owner's designated representative.
- B. Operating Documentation: Prior to initiation of field test and training, deliver two hard copies and one electronic copy of operations manuals, maintenance, and administration manuals.
- C. Copies of all licenses, registrations, documentation, disks and other media as may have been included with those commercially available software packages provided with system. In addition, ensure that all licenses, registrations and warranties have been transferred to Owner prior to final software turnover.
- D. At least 30 days prior to scheduled training sessions, deliver a Training Plan. Include at a minimum, a description of all training courses including identification of instructional outcome, duration of course, and type of presentations.
- E. Testing Plan and Documentation: Provide a test plan for review and approval by Owner or Owner's authorized representative 30 days prior to start of first test. Include demonstrations of compliance with specifications, contractual compliance, disaster recovery testing and documentation, definitions of all test objectives, participant responsibilities, documentation for tests, and procedures for dealing with failures during test.
- F. Contractor is responsible for all permits and licenses and compliance with all codes and regulations.

**1.9 QUALITY ASSURANCE**

- A. All components and installation to comply with all laws, ordinances, codes, rules, and regulations of public authorities having jurisdiction over this part of the work. It is the responsibility of the Contractor to meet these and all other current technical, performance, and safety standards that are applicable to all components and to the entire system, even when not specifically referenced.

- B. Open-architecture system where all interfaces (hardware and software) conform to national and International Organization for Standardization (ISO) standards.
- C. All materials and equipment listed, labeled, or certified by a nationally recognized testing laboratory to meet Underwriters Laboratories, Inc. (UL) standards, where test standards have been established.
  - 1. Equipment and materials which are not covered by UL Standards may be considered, provided equipment and material is listed, labeled, certified, or otherwise determined to meet safety requirements of a nationally recognized testing laboratory.
  - 2. Equipment of a class for which no nationally recognized testing laboratory accepts, certifies, lists, labels, or determines to be safe, will be considered if inspected or tested in accordance with national industrial standards, such as NEMA, or ANSI. Evidence of compliance includes certified test reports and definitive product data. Such equivalent certification may include CE Marking Certification.
- D. Equipment housings, conduits, and junction boxes exposed to weather (any location not in a conditioned environment) will meet or exceed NEMA 3SX or IP54 standards to be moisture-proof and provide sufficient protection so that the components continue to function without moisture, dust, particle, heat, or cold-related interruption. Components that do not meet NEMA 3SX or IP54 standards or better may be considered if implemented with supplemental environmental controls to sufficiently protect equipment.

#### **1.10 WARRANTY**

- A. General: Equipment and installation (100% parts and labor) for one (1) year from date of final acceptance by Owner or Owner's Representative. System maintained and serviced against any and all malfunctions due to manufacturing or installation defects at no cost to Owner during warranty period, including preventive maintenance per manufacturer's recommendations or as necessary to keep equipment in good working order. Software support provided during warranty period to include all software upgrades at no additional cost to Owner.
  - 1. Warranty period commences after Contractor has demonstrated satisfactory performance of system as specified in the Acceptance Testing Plan.
  - 2. Maintain a log of all maintenance, preventive maintenance and repair work performed under warranty and provide to Owner or Owner's Representative at end of warranty period.
- B. Warranty response period:
  - 1. Immediate telephone support available from 8:00 am – 5:00 pm, local time, Monday-Friday.
  - 2. On-site response by qualified service technician within 48 hours, excluding weekends and holiday.
- C. If Contractor is not available for above response, Owner or Owner's Representative may affect repairs with no impact on warranty. Pre-qualify appropriate Owner or Owner's Representative



to perform repairs and identify types of repair each trained individual is qualified to perform after training of Owner personnel.

- D. Replace items taken from spare parts inventory during warranty period at no additional cost to Owner.
- E. Preventative Maintenance Service during the Warranty Period:
  - 1. Provide preventative maintenance services for all systems throughout the warranty period. Preventative maintenance procedures and frequencies are defined within the Manufacturer's recommended maintenance procedures manual.
  - 2. Preventative maintenance services include but are not limited to inspection, testing, necessary adjustment, alignments, calibration, parts cleaning, communication system maintenance, server administration and database administration of the hardware provided as part of this project by the Contractor.
  - 3. Perform all preventative maintenance at non-peak periods during regular business hours.
- F. Software Support during the Warranty Period:
  - 1. Make available to the Owner normal software improvement releases (updates) as they become available at no additional cost to the Owner.
  - 2. Provide all software patches and updates free of charge during the warranty period; however, the Owner has right of refusal.
  - 3. Seven (7) calendar days prior to all software modifications, patches, updates, and upgrades, provide accurate and complete documentation that describes:
    - a. Patch/update release designation.
    - b. Proposed date and time of implementation.
    - c. Detailed description of what the patch/update accomplishes.
    - d. Test plan that shows the change has been successfully tested and has passed internal unit, end-to-end testing.
    - e. Full disaster recovery procedures that return the system to its pre-patch/update condition
  - 4. Provide operating system support and database administration services including adherence to the recommended operating system patches and updates as they are made commercially available by the operating system developer.
  - 5. Coordinate the testing and implementation of all patches and updates with the Owner.
  - 6. Support upgrades to the application based on operating system patch and upgrade requirements. For example, if run on a Microsoft operating system, the software can be patched according to the Microsoft patch and upgrade schedule without breaking any application. If Microsoft decommissions an operating system, the Contractor must be capable of releasing code compatible with next operating system upgrade prior to Microsoft ending support for current operating system.
  - 7. If at any time the Contractor ceases to do business or ceases to make the software product commercially available, the Owner will assume full ownership of the software. Thirty days prior to ceasing to do business, the Contractor will provide the most current version of the software source code to the Owner.

8. Provide corrective patches and upgrades in the event security vulnerability or system availability issues are discovered.

#### **1.11 DELIVERY, STORAGE, AND HANDLING REQUIREMENTS**

- A. Contractor is responsible for insuring all shipped items. Any items damaged during shipping will be replaced and shipped to the project site, by expedited means if requested, at no additional cost to the Owner.
- B. Owner will provide a designated storage/staging area for equipment that has not been installed. Location to be determined after contract award.
- C. It is the Contractor's responsibility to protect the equipment from theft and damage until final acceptance. Contractor will replace the equipment at no additional cost to the Owner.
- D. Deliver equipment to site in manufacturer's original containers to prevent damage and marked for easy identification.

### **PART 2 - PRODUCTS**

#### **2.1 MLPR BACK-OFFICE SOFTWARE**

- A. Microprocessor controlled, in on-line, virtual real-time communication. In event of failure during communication, an error-checking and recovery routine is employed to prevent corruption of data.
- B. Hosted system, capable of operating with proper user ID and password, to all authorized users.
  1. Provide continual software updates at no additional fees for the life of the contract.
  2. Maintain a secure connection while active, and automatically log-off after programmable period of inactivity.
  3. Remote access to BOS over standard TCP/IP connection (may use web browser-based applications).
  4. Browser-based user-interface modules utilize client/server technology or equivalent. The following general requirements apply to all components or modules:
    - a. Windows-based graphical user interface.
    - b. Allow for both standard and custom report formats.
    - c. Adequate security to allow for different classifications of users.
  5. Provide all updates to the BOS at no additional cost to the Owner for the life of any contract.
  6. Integrate with iParq permit and enforcement system.
  7. Integrate with MSM payment system.
  8. Integrate with ParkMobile payment system.
- C. Accurately enforce/match scanned vehicle license plates to data files such as:

1. PbP meter payments.
  2. PbC parking payments.
  3. Permit vehicles.
  4. No parking zones.
  5. Tow, boot, or seizure eligible registrations.
  6. City, state, and federal stolen vehicle license plates.
  7. Previously scanned vehicles for time limit violations.
  8. Authorized "white-list" vehicle license plates.
  9. BOLO vehicle license plates.
- D. Ability to identify moved and re-parked vehicles or time limit parking via "electronic chalking".
- E. Ability to provide security features so that a vehicle identified as a scofflaw cannot be bypassed without corrective action or supervisory authorization. Note: This is not desired presently but should be available in the future at no additional cost.
- F. Capable of duration of stay and turnover analysis.
- G. Ability to schedule updates (i.e., hot lists).
- H. Provide mapping functions with zones for location identification and rules.
- I. Maximum response time for data retrieval (i.e., query against "hit" file on hand-held): Four (4) seconds.
- J. Trunk mounted processor.
- K. Intelligent Power Supply Unit for ignition start-up and shut down.
- L. Color touch screen
1. Display license plates scanned
  2. Audible and visual alerts of license plates which are in violation or otherwise identified as scofflaws.
- M. Provide the capability for supervisors to perform field audits.
- N. Provide for remote access to the management features of the system from designated workstations for authorized supervisors.
- O. Ability of real time system updating to the boot and tow system (i.e., location of vehicle booted, vehicle color and make, boot number) and any and all information necessary to complete a boot record by wireless cell card or some other wireless system. Note: This is not desired presently but should be available in the future at no additional cost.
- P. Storage
1. Capable of automatic storage and wireless transmission of all data and digital images.

2. Unlimited storage capacity.
  3. Ability to store and catalogue images for up to sixty (60) days and recall them on demand by field-sortable search.
- Q. Automatically capture, interpret, process, display and store license plate images
- R. Incorporate fuzzy logic for identifying misreads.
- S. Provide real-time displays of:
1. License plate image.
  2. License plate.
  3. Image of vehicle.
  4. Date and time.
  5. GPS coordinates.
- T. Manual Features
1. Ability to manually identify misread plates.
  2. Ability to add notes to images.
- U. Queries:
1. Ability to manually enter plates for querying purposes.
  2. Ability to cross-link, query and input data from external sources.
  3. Ability to audit all queries by date, time, and user password.
  4. Ability to save frequent query requests.
- V. Data format in either .csv or text file.
- W. Ability to export and print all data.
- X. Data download by flash drive or wireless.
- Y. Include updatable mapping system and license.
- Z. Security
1. Utilize protocols and passwords that prevent unauthorized access to software and hardware and manipulation of data and reports, including individual transactions.
  2. Include multiple levels of access authorization to all operational, administrative and reporting functions and provide the following security features:
    - a. Define individual user and group-based security.
    - b. Ability to assign a unique user ID and password for each person authorized to use system.
    - c. Ability to establish an expiration period for passwords and periodically change that password for each authorized user ID.

- d. Ability to disable a user ID following successive log-on failures exceeding a specific limit.
  - e. Ability to view and report user and group level security rights and create user-defined fields.
  - f. Ability to de-activate codes for former users and internal and external customers.
- 3. Provide Owner with a complete list of initial installation administrator usernames and passwords for all authorized users.
- 4. Monitor the transmission of repeated messages that may indicate possible problems with the system.
- 5. Display abnormal status conditions as a visual alarm on the workstation screen, accompanied by an audible alarm.
  - a. The display continues to flash until the abnormal condition is corrected. The audible alarm continues until turned off by operator.
  - b. Record the abnormal status condition and the acknowledgement of the alarm, including time, workstation, and operator.

## **2.2 CAMERAS**

- A. Ability to capture plate images for parallel and diagonally parked vehicles and moving vehicles.
- B. Ability to read reflective and non-reflective license plates.
- C. Ability to take still pictures.
- D. Ambient lighting conditions have no effect on the accuracy of the LPR system regardless of the time of the day and night. Provide any necessary shading or lighting elements required to mitigate the effect of the ambient lighting conditions on the LPR system performance.
- E. Perform all optical character recognition.
- F. RF shielded camera cables.
- G. Internal heating elements.
- H. Rated at 30 frames per second.
- I. Anti-theft mounting /removal brackets.
- J. Equipped with IR lens for license plate and color image for verification.
- K. Capable of multiple images with multiple flash and shutter settings.
- L. Target range of 9' to 30'.
- M. In-camera GPS.
- N. Pulsed LED illumination.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Install LPR System in accordance with manufacturer's recommendations.
- B. Installation and Start-Up: Contractor is responsible for installation of all Contractor supplied equipment and its interfacing and interconnection with Owner supplied equipment.
- C. Contractor is responsible for all software and communications by all computers and peripheral devices.
- D. Owner or Owner's Representative may observe installation process and stop the work at any time throughout the process.

#### **3.2 FIELD QUALITY CONTROL**

- A. Provide an Acceptance Testing Plan to demonstrate the functionality of the system.
  - 1. Include demonstrations of compliance with all specifications, contractual compliance, definitions of all test objectives, participant responsibilities, documentation of tests and procedures for dealing with failures during test.
  - 2. Detail tests for every functional requirement of the system, including PbC integration.
    - a. Include checklist for specified supplies, spare parts, training operation and training manuals.
    - b. Provide space for acceptance by Contractor and Owner or Owner's representative.
  - 3. Confirm that all specified features are provided and fully operational before scheduling Acceptance Testing with Owner and/or Owner's Agent.
  - 4. Notify Owner or Owner's Representative in writing at least one week prior to test session. If a test is not successful, correct noted deficiencies and advise Owner or Owner's Representative, at least two days in advance, that test session is ready to resume.
  - 5. Owner or Owner's Representative may witness tests.
- B. Passing Acceptance testing, even if performed in the presence of the Owner or Owner's Representative, does not relieve the Contractor of the responsibility to provide a system in accordance with the Specifications.
- C. Promptly correct all problems encountered at no cost to the Owner.
- D. Sixty-Day Operational Test and Final Acceptance
  - 1. After go-live date, the Owner will conduct an operational test for sixty (60) days.
  - 2. Performance Standards:
    - a. System is fully operational without downtime or programming problems for the complete monthly reporting cycle. For each down time period of between one

hour and eight hours, or programming problems that delay the report cycle, two days will be added to the test duration.

- b. All reports correlate 100% with MSM and PbC data.
- 3. Maintain detailed records and a logbook of all tests, events and issues to be provided to the Owner upon completion of the tests.

### **3.3 INSTRUCTION AND TRAINING**

- A. Fully instruct the Owner's designated personnel in the operation, adjustment, and maintenance of all products, equipment, and systems.
- B. Coordinate scheduling of on-site and in-person instructional classes with Owner's designated personnel to avoid conflicts and peak-period personnel demands.
- C. Submit a proposed instruction schedule prior to equipment installation. Owner will tentatively approve or suggest changes to the training schedule.
- D. Ample time should be allotted within each session for the instructor to fully describe and demonstrate all aspects of the MLPR system and allow Owner personnel to have hands-on experience with the system.
- E. All instruction courses will consist of classroom instruction and actual "hands-on" experience. Classes will be set up in a room designated by the Owner.
- F. Provide experienced instructors that speak fluent English in a clear precise manner.
- G. Provide all documentation required for instructing Owner personnel. The Owner retains the right to copy training materials as frequently as required for ongoing internal use only.
- H. Provide an instructional notebook or user's manual to accompany every instruction course. Submit a hard copy and electronic version of all manuals (operation and maintenance) written in common English with appropriate photos, diagrams, and schematics to supplement the text.
- I. Training categories:
  - 1. Maintenance.
  - 2. Enforcement.
  - 3. Administration.
- J. Provide hard copies and electronic operation and maintenance manuals for all components.

### **END OF SECTION 111248**

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**Section 111224 - Appendix A - Proposal Price Tabulation Form**  
**CITY OF HENDERSONVILLE, NC - MSM PRICING DOCUMENTS**

TOTAL	Written in Numerals	Written in Words
Base Price		
1-Year TOTAL Cost		
Recurring Fees		
6-Year TOTAL with FEES		
PM & Service		
Warranty		
6-Year TOTAL Full Coverage		
Spare Parts		
Company:		Date:
Name:		Signature:

**MULTI-SPACE METERS "MSM"**

ITEM #	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
1	MULTI-SPACE METER - Bill, Coin, and Credit Card	27	\$0.00	\$0.00
2	Installation	27	\$0.00	\$0.00
3	Set-up/connection/programming	27	\$0.00	\$0.00
4	Training Hours	4	\$0.00	\$0.00
5	Back Office Software	1	\$0.00	\$0.00
6	Installation	1	\$0.00	\$0.00
7	Set-up/connection/programming	1	\$0.00	\$0.00
8	Training Hours	4	\$0.00	\$0.00
9	Mobile License Plate Recognition Integration	1	\$0.00	\$0.00
10	iParq System Integration	1	\$0.00	\$0.00
11	ParkMobile Integration	1	\$0.00	\$0.00
12	User/Aministrator License (per User)	3	\$0.00	\$0.00
13	Stock items: Receipt paper rolls	270	\$0.00	\$0.00
14	Stock items: Bill vaults	27	\$0.00	\$0.00
15	Stock items: Coin vaults	27	\$0.00	\$0.00
16	Freight and Shipping Charges	1	\$0.00	\$0.00
17	Sales Tax - Henderson County 6.75%	1	\$0.00	\$0.00
18	EDIT AS NEEDED	1	\$0.00	\$0.00
19	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL "BASE MSM SYSTEM"</b>				<b>\$0.00</b>
<b>REQUIRED ADDITIONAL EQUIPMENT, COSTS, DEDUCTIONS, ETC.</b>				
20	EDIT AS NEEDED	1	\$0.00	\$0.00
21	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL ADDITIONAL EQUIPMENT, FEES, OR COSTS</b>				<b>\$0.00</b>
<b>TOTAL 1-YEAR "All Inclusive MSM SYSTEM"</b>				<b>\$0.00</b>



RECURRING FEES - Software as a Service				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
22	Recurring Fees Year 2	1	\$0.00	\$0.00
23	Recurring Fees Year 3	1	\$0.00	\$0.00
24	Recurring Fees Year 4	1	\$0.00	\$0.00
25	Recurring Fees Year 5	1	\$0.00	\$0.00
26	Recurring Fees Year 6	1	\$0.00	\$0.00
TOTAL ADDITIONAL RECURRING FEES				\$0.00
ADD ALTERNATE 1: Preventive Maintenance and Service Contract				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
27	PM & Service Year 2	1	\$0.00	\$0.00
28	PM & Service Year 3	1	\$0.00	\$0.00
29	PM & Service Year 4	1	\$0.00	\$0.00
30	PM & Service Year 5	1	\$0.00	\$0.00
31	PM & Service Year 6	1	\$0.00	\$0.00
ALTERNATE 1: PM & SERVICE TOTAL				\$0.00
ADD ALTERNATE 2: Extended Parts Warranty				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
32	Parts Warranty Year 2	1	\$0.00	\$0.00
33	Parts Warranty Year 3	1	\$0.00	\$0.00
34	Parts Warranty Year 4	1	\$0.00	\$0.00
35	Parts Warranty Year 5	1	\$0.00	\$0.00
36	Parts Warranty Year 6	1	\$0.00	\$0.00
ALTERNATE 2: PARTS WARRANTY TOTAL				\$0.00
SPARE PARTS				
DESCRIPTION		QUANTITY	UNIT PRICE	TOTAL PRICE
37	EDIT AS NEEDED	1	\$0.00	\$0.00
38	EDIT AS NEEDED	1	\$0.00	\$0.00
39	EDIT AS NEEDED	1	\$0.00	\$0.00
40	EDIT AS NEEDED	1	\$0.00	\$0.00
41	EDIT AS NEEDED	1	\$0.00	\$0.00
SPARE PARTS TOTAL				\$0.00

**Section 111248 - Appendix A - Proposal Price Tabulation Form**  
**CITY OF HENDERSONVILLE, NC - MLPR PRICING DOCUMENTS**

<b>TOTAL</b>	<b>Written in Numerals</b>	<b>Written in Words</b>
Base Price		
1-Year TOTAL Cost		
Recurring Fees		
6-Year TOTAL with FEES		
PM & Service		
Warranty		
6-Year TOTAL Full Coverage		
Spare Parts		
Company:		Date:
Name:		Signature:

**MOBILE LICENSE PLATE RECOGNITION (MLPR)**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>TOTAL PRICE</b>
1	MLPR Dual Camera System with Mounts	1	\$0.00	\$0.00
2	Installation	1	\$0.00	\$0.00
3	Set-up/connection/programming	1	\$0.00	\$0.00
4	Licensing	1	\$0.00	\$0.00
5	Training Hours	1	\$0.00	\$0.00
6	In-Vehicle Enforcement Laptop with Mounting and Docking Station	1	\$0.00	\$0.00
7	Installation	1	\$0.00	\$0.00
8	Set-up/connection/programming	1	\$0.00	\$0.00
9	Licensing	1	\$0.00	\$0.00
10	Training Hours	2	\$0.00	\$0.00
11	Back Office Software	1	\$0.00	\$0.00
12	Installation	1	\$0.00	\$0.00
13	Set-up/connection/programming	1	\$0.00	\$0.00
14	Training Hours	2	\$0.00	\$0.00
15	Multi-Space Meter Integration	1	\$0.00	\$0.00
16	iParq Integration	1	\$0.00	\$0.00
17	ParkMobile Integration	1	\$0.00	\$0.00
18	User/Aministrator License (per User)	3	\$0.00	\$0.00
19	Freight and Shipping Charges	1	\$0.00	\$0.00
20	Sales Tax - Henderson County 6.75%	1	\$0.00	\$0.00
21	EDIT AS NEEDED	1	\$0.00	\$0.00
22	EDIT AS NEEDED	1	\$0.00	\$0.00

**TOTAL "BASE MLPR SYSTEM"**

**\$0.00**

**REQUIRED ADDITIONAL EQUIPMENT, COSTS, DEDUCTIONS, ETC.**

23	EDIT AS NEEDED	1	\$0.00	\$0.00
24	EDIT AS NEEDED	1	\$0.00	\$0.00

**TOTAL ADDITIONAL EQUIPMENT, FEES, OR COSTS**

**\$0.00**

**TOTAL 1-YEAR "All Inclusive MLPR SYSTEM"**

**\$0.00**

RECURRING FEES - Software as a Service				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
25	Recurring Fees Year 2	1	\$0.00	\$0.00
26	Recurring Fees Year 3	1	\$0.00	\$0.00
27	Recurring Fees Year 4	1	\$0.00	\$0.00
28	Recurring Fees Year 5	1	\$0.00	\$0.00
29	Recurring Fees Year 6	1	\$0.00	\$0.00
TOTAL ADDITIONAL RECURRING FEES				\$0.00
ADD ALTERNATE 1: Preventive Maintenance and Service Contract				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
35	PM & Service Year 2	1	\$0.00	\$0.00
36	PM & Service Year 3	1	\$0.00	\$0.00
37	PM & Service Year 4	1	\$0.00	\$0.00
38	PM & Service Year 5	1	\$0.00	\$0.00
39	PM & Service Year 6	1	\$0.00	\$0.00
ALTERNATE 1: PM & SERVICE TOTAL				\$0.00
ADD ALTERNATE 2: Extended Parts Warranty				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
40	Parts Warranty Year 2	1	\$0.00	\$0.00
41	Parts Warranty Year 3	1	\$0.00	\$0.00
42	Parts Warranty Year 4	1	\$0.00	\$0.00
43	Parts Warranty Year 5	1	\$0.00	\$0.00
44	Parts Warranty Year 6	1	\$0.00	\$0.00
ALTERNATE 2: PARTS WARRANTY TOTAL				\$0.00
SPARE PARTS				
DESCRIPTION		QUANTITY	UNIT PRICE	TOTAL PRICE
30	EDIT AS NEEDED	1	\$0.00	\$0.00
31	EDIT AS NEEDED	1	\$0.00	\$0.00
32	EDIT AS NEEDED	1	\$0.00	\$0.00
33	EDIT AS NEEDED	1	\$0.00	\$0.00
34	EDIT AS NEEDED	1	\$0.00	\$0.00
SPARE PARTS TOTAL				\$0.00

**SECTION 111224 - APPENDIX B - SPECIFICATION COMPLIANCE FORM**  
**CITY OF HENDERSONVILLE, NC - MSM PROCUREMENT DOCUMENTS**

[illegible]

[illegible]



# Hendersonville, NC

Paymeter Locations

## Legend

Existing = 7

New = 20





**Section 111224 - Appendix A - Proposal Price Tabulation Form**  
**CITY OF HENDERSONVILLE, NC - MSM PRICING DOCUMENTS**

TOTAL	Written in Numerals	Written in Words
Base Price		
1-Year		
TOTAL Cost		
Recurring Fees		
6-Year TOTAL with FEES		
PM & Service		
Warranty		
6-Year TOTAL Full Coverage		
Spare Parts		
Company:		Date:
Name:		Signature:

**MULTI-SPACE METERS "MSM"**

ITEM #	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
1	MULTI-SPACE METER - Bill, Coin, and Credit Card	27	\$0.00	\$0.00
2	Installation	27	\$0.00	\$0.00
3	Set-up/connection/programming	27	\$0.00	\$0.00
4	Training Hours	4	\$0.00	\$0.00
5	Back Office Software	1	\$0.00	\$0.00
6	Installation	1	\$0.00	\$0.00
7	Set-up/connection/programming	1	\$0.00	\$0.00
8	Training Hours	4	\$0.00	\$0.00
9	Mobile License Plate Recognition Integration	1	\$0.00	\$0.00
10	iParq System Integration	1	\$0.00	\$0.00
11	ParkMobile Integration	1	\$0.00	\$0.00
12	User/Aministrator License (per User)	3	\$0.00	\$0.00
13	Stock items: Receipt paper rolls	270	\$0.00	\$0.00
14	Stock items: Bill vaults	27	\$0.00	\$0.00
15	Stock items: Coin vaults	27	\$0.00	\$0.00
16	Freight and Shipping Charges	1	\$0.00	\$0.00
17	Sales Tax - Henderson County 6.75%	1	\$0.00	\$0.00
18	EDIT AS NEEDED	1	\$0.00	\$0.00
19	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL "BASE MSM SYSTEM"</b>				<b>\$0.00</b>

**REQUIRED ADDITIONAL EQUIPMENT, COSTS, DEDUCTIONS, ETC.**

20	EDIT AS NEEDED	1	\$0.00	\$0.00
21	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL ADDITIONAL EQUIPMENT, FEES, OR COSTS</b>				<b>\$0.00</b>

**TOTAL 1-YEAR "All Inclusive MSM SYSTEM"**

**\$0.00**

RECURRING FEES - Software as a Service				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
22	Recurring Fees Year 2	1	\$0.00	\$0.00
23	Recurring Fees Year 3	1	\$0.00	\$0.00
24	Recurring Fees Year 4	1	\$0.00	\$0.00
25	Recurring Fees Year 5	1	\$0.00	\$0.00
26	Recurring Fees Year 6	1	\$0.00	\$0.00
TOTAL ADDITIONAL RECURRING FEES				\$0.00
ADD ALTERNATE 1: Preventive Maintenance and Service Contract				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
27	PM & Service Year 2	1	\$0.00	\$0.00
28	PM & Service Year 3	1	\$0.00	\$0.00
29	PM & Service Year 4	1	\$0.00	\$0.00
30	PM & Service Year 5	1	\$0.00	\$0.00
31	PM & Service Year 6	1	\$0.00	\$0.00
ALTERNATE 1: PM & SERVICE TOTAL				\$0.00
ADD ALTERNATE 2: Extended Parts Warranty				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
32	Parts Warranty Year 2	1	\$0.00	\$0.00
33	Parts Warranty Year 3	1	\$0.00	\$0.00
34	Parts Warranty Year 4	1	\$0.00	\$0.00
35	Parts Warranty Year 5	1	\$0.00	\$0.00
36	Parts Warranty Year 6	1	\$0.00	\$0.00
ALTERNATE 2: PARTS WARRANTY TOTAL				\$0.00
SPARE PARTS				
DESCRIPTION		QUANTITY	UNIT PRICE	TOTAL PRICE
37	EDIT AS NEEDED	1	\$0.00	\$0.00
38	EDIT AS NEEDED	1	\$0.00	\$0.00
39	EDIT AS NEEDED	1	\$0.00	\$0.00
40	EDIT AS NEEDED	1	\$0.00	\$0.00
41	EDIT AS NEEDED	1	\$0.00	\$0.00
SPARE PARTS TOTAL				\$0.00



**Section 111248 - Appendix A - Proposal Price Tabulation Form**  
**CITY OF HENDERSONVILLE, NC - MLPR PRICING DOCUMENTS**

<b>TOTAL</b>	<b>Written in Numerals</b>	<b>Written in Words</b>
Base Price		
1-Year TOTAL Cost		
Recurring Fees		
6-Year TOTAL with FEES		
PM & Service		
Warranty		
6-Year TOTAL Full Coverage		
Spare Parts		
Company:		Date:
Name:		Signature:

**MOBILE LICENSE PLATE RECOGNITION (MLPR)**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT PRICE</b>	<b>TOTAL PRICE</b>
1	MLPR Dual Camera System with Mounts	1	\$0.00	\$0.00
2	Installation	1	\$0.00	\$0.00
3	Set-up/connection/programming	1	\$0.00	\$0.00
4	Licensing	1	\$0.00	\$0.00
5	Training Hours	1	\$0.00	\$0.00
6	In-Vehicle Enforcement Laptop with Mounting and Docking Station	1	\$0.00	\$0.00
7	Installation	1	\$0.00	\$0.00
8	Set-up/connection/programming	1	\$0.00	\$0.00
9	Licensing	1	\$0.00	\$0.00
10	Training Hours	2	\$0.00	\$0.00
11	Back Office Software	1	\$0.00	\$0.00
12	Installation	1	\$0.00	\$0.00
13	Set-up/connection/programming	1	\$0.00	\$0.00
14	Training Hours	2	\$0.00	\$0.00
15	Multi-Space Meter Integration	1	\$0.00	\$0.00
16	iParq Integration	1	\$0.00	\$0.00
17	ParkMobile Integration	1	\$0.00	\$0.00
18	User/Aministrator License (per User)	3	\$0.00	\$0.00
19	Freight and Shipping Charges	1	\$0.00	\$0.00
20	Sales Tax - Henderson County 6.75%	1	\$0.00	\$0.00
21	EDIT AS NEEDED	1	\$0.00	\$0.00
22	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL "BASE MLPR SYSTEM"</b>				<b>\$0.00</b>
<b>REQUIRED ADDITIONAL EQUIPMENT, COSTS, DEDUCTIONS, ETC.</b>				
23	EDIT AS NEEDED	1	\$0.00	\$0.00
24	EDIT AS NEEDED	1	\$0.00	\$0.00
<b>TOTAL ADDITIONAL EQUIPMENT, FEES, OR COSTS</b>				<b>\$0.00</b>
<b>TOTAL 1-YEAR "All Inclusive MLPR SYSTEM"</b>				<b>\$0.00</b>

RECURRING FEES - Software as a Service				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
25	Recurring Fees Year 2	1	\$0.00	\$0.00
26	Recurring Fees Year 3	1	\$0.00	\$0.00
27	Recurring Fees Year 4	1	\$0.00	\$0.00
28	Recurring Fees Year 5	1	\$0.00	\$0.00
29	Recurring Fees Year 6	1	\$0.00	\$0.00
TOTAL ADDITIONAL RECURRING FEES				\$0.00
ADD ALTERNATE 1: Preventive Maintenance and Service Contract				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
35	PM & Service Year 2	1	\$0.00	\$0.00
36	PM & Service Year 3	1	\$0.00	\$0.00
37	PM & Service Year 4	1	\$0.00	\$0.00
38	PM & Service Year 5	1	\$0.00	\$0.00
39	PM & Service Year 6	1	\$0.00	\$0.00
ALTERNATE 1: PM & SERVICE TOTAL				\$0.00
ADD ALTERNATE 2: Extended Parts Warranty				
DESCRIPTION - TO BE INVOICED AT CONTRACT ANNIVERSARY		QUANTITY	UNIT PRICE	TOTAL PRICE
40	Parts Warranty Year 2	1	\$0.00	\$0.00
41	Parts Warranty Year 3	1	\$0.00	\$0.00
42	Parts Warranty Year 4	1	\$0.00	\$0.00
43	Parts Warranty Year 5	1	\$0.00	\$0.00
44	Parts Warranty Year 6	1	\$0.00	\$0.00
ALTERNATE 2: PARTS WARRANTY TOTAL				\$0.00
SPARE PARTS				
DESCRIPTION		QUANTITY	UNIT PRICE	TOTAL PRICE
30	EDIT AS NEEDED	1	\$0.00	\$0.00
31	EDIT AS NEEDED	1	\$0.00	\$0.00
32	EDIT AS NEEDED	1	\$0.00	\$0.00
33	EDIT AS NEEDED	1	\$0.00	\$0.00
34	EDIT AS NEEDED	1	\$0.00	\$0.00
SPARE PARTS TOTAL				\$0.00

SECTION 111224 - APPENDIX B - SPECIFICATION COMPLIANCE FORM  
CITY OF HENDERSONVILLE, NC - MSM PROCUREMENT DOCUMENTS

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**SECTION 111248 - APPENDIX B - SPECIFICATION COMPLIANCE FORM**  
**CITY OF HENDERSONVILLE, NC - [MLPR](#) PROCUREMENT DOCUMENTS**

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