



REQUEST FOR PROPOSAL (RFP)

Off-Street Parking Access and Revenue Control Equipment (PARCS)

RFP No: 2018-001

Date Issued: September 10, 2018

Due Date: October 19, 2018

TABLE OF CONTENTS

DESCRIPTION OF PROJECT AND NATURE OF RFP	2 - 9
SCHEDULE	10 – 11
EVALUATION CRITERIA	12 – 15
CONTENTS OF PROPOSAL	15 – 21
HOW TO SUBMIT A PROPOSAL	22 – 24
SCOPE OF WORK	24 – 69
APPENDIX	
• Photographs of the garages and lot(s)	

DESCRIPTION OF PROJECT AND NATURE OF RFP

The Reading Parking Authority (RPA) is seeking Proposals from qualified and experienced vendors for a scalable Web-based, vendor-hosted solution for an integrated PARCS including hardware and back-office software (“System”) within both a gated and non-gated controlled environment. The RPA owns and operates seven (7) garages and one (1) lot with over 5,000 spaces:

1. South Penn Garage – 1,050 Spaces

Height Clearance: 6' 10"

The South Penn garage is located between the 600 Blocks of Franklin and Cherry Streets. Motorists may enter the garage from Franklin or Cherry.

2. 4th and Cherry Garage – 635 Spaces

Height Clearance: 7' 4"

The 4th and Cherry garage is located between the 400 blocks of Franklin and Cherry Streets. Motorists may enter the garage from the 400 block of Cherry Street.

3. Chiarelli Garage – 500 Spaces

The Chiarelli garage borders the 000 Block of North 3rd Street between the 300 Blocks of Washington and Court Streets. Motorists may access the garage from the 000 Block of 3rd Street or from the 300 Block of Washington Street. The height clearance for Chiarelli is 7' 11"

4. Reed and Court Garage – 526 Spaces

Reed and Court Height Clearance: 6' 8"

The Reed and Court garage is located and may be accessed from the south side of the 600 Block of Court Street. The entrance is at the intersection of Reed and Court Streets.

5. Poplar and Walnut Garage – 1,024 Spaces

Height Clearance: 7' 0"

The Poplar and Walnut garage is located between the 700 Blocks of Walnut and Washington Streets. Motorists may access the garage from the 100 Block of Poplar Street.

6. 2nd & Washington Garage – 434 Spaces

Height Clearance: 7' 0"

The Albert Boscov Plaza is located at the intersection of Washington and 2nd St. across from the Goggle Works. The garage features retail spaces along Washington and Second Street. The entrance and exit for the garage is located on Thorn Street.

7. Convention Center Garage – 927 Spaces

Height Clearance: 7' 2"

The Convention Center Garage is located on the 700 Block of Court Street. Motorists may enter the garage from Court Street.

8. 7th & Washington Lot- 141 spaces

It has permit holders (business and residents). It also allows access (drop-off) for a daycare.

The purpose of this Request for Proposals (RFP) is to solicit Proposals from qualified vendors to establish a contract through competitive sealed Proposals for the provision of a PARCs system that uses leading-edge technology that operates on an open architecture platform. For management reporting purposes, the chosen vendor will provide:

- A graphical display of the entire integrated off-street operations displaying the status of current revenues earned
- Location occupancy
- Duration, car counts
- System activities
- Error/fault messages
- Other key operating functions and statistics

The System shall have the capability of processing and tracking various parking users including transient, hotel patrons, residential tenants, tenant guests, monthly parkers, and valet parking. The RPA prefers a system that *can be upgraded or scaled to use* License Plate Recognition (LPR) technology to process and/or track transactions, access, and inventory of vehicles using the garages. In addition, the RPA prefers a system that accepts multiple payment options, including cash, credit card, validations, mobile payments, proxy cards, online reservation system, etc.

The RPA is looking to use technology and data to better provide customer service, improve the utilization of their assets and develop innovative solutions based on the data collected. To achieve these results, the RPA desires to partner with vendors and organizations that can integrate applications with data with other partners. Through database access, API usage, compliant Web-based applications, and cross-platform compatibility, the RPA is better able to leverage the technology in which it has invested. The ideal vendor would have existing integrations with the RPA partner organizations, including but not limited to Parkeon, IPS Group, Flowbird, and Municipal Citation Solutions VATS software, Genetech AutoVu, Mobile Now, Parkmobile, PassportParking, etc. The ideal vendor will also possess the ability and desire to develop integrations with new software and services. Currently, Parking Enforcement Ambassadors use LPR for parking enforcement via the Municipal Citation Systems and Genetech AutoVu platform.

Also, please note, the City and RPA have partnered (7/10/2018) on an RFP soliciting vendors for a city-wide parking study.

Project Background:

The RPA currently uses 3M's (formerly Federal APD) PARCS in all of its off-street parking facilities. The system includes all hardware and software needed to provide an operational parking management system. In November 2014, the 3M Company announced that it will be transitioning out of the PARCS business by closing the parking manufacturing operations. According to 3M's press release, the company will continue to support warranties for up to two (2) years. The RPA's 3M PARCS' equipment is out of warranty status.

The closure of 3M's parking business raised several short-term and long-term concerns for the Authority. Some of the concerns include:

- Software support, maintenance, and training
- Compliance with statutory and financial institutions requirements (e.g., PCI)
- Service calls (hardware and software) especially after the end of 3M's warranty period
- Spare parts
- System upgrade needs due to constantly changing parking industry requirements
- System and feature upgrades needed to support changes in the payment industry and related demands/expectations from users/parkers
- Technology improvements and enhancements
- Protection of parking system from hackers. In recent years, the parking and IT industries have experienced an increase in system break-ins from hackers
- A potential loss of equipment value due to the lack or absence of proper and well maintained PARCS operating system

The RPA wants to accurately collect parking revenues from its parking facilities, maintain its PARCS hardware and software on a long-term basis, and provide a high level of customer service to its current and future customers. The Authority is soliciting Proposals from qualified Vendors to establish a contract through competitive, sealed Proposals for the provision of a complete PARCS for Authority owned off-street parking facilities. The Proposers will provide all necessary PARCS hardware, software, installation and related services for the Authority. The details of PARCS and related services are defined later in this document.

Scope of Work:

The Authority is soliciting Proposals from qualified firms with demonstrated experience in providing and supporting a Proposer – hosted, scalable, Web-based solution for an integrated

PARCS with LPR and AVI, including hardware and back-office software within a *gated and gateless* controlled environment.

The scope of the required project shall include, but is not limited to, the design, development, programming, reliability testing, fabrication, unit testing, system testing, packaging, shipping, installation, startup, maintenance, training of staff and documentation of a PARCS that will provide for multiple credentials for access control and payment services.

The new PARCS will provide transient parkers with automated payment stations strategically located in each parking garage coinciding with a graphics program to assist transient parkers.

The technical requirements for the project, describe the system concepts, operational and technical requirements and various procedures for the design, development, fabrication, programming, testing, installation and implementation of the various items of access control credentials and fee collection equipment. The primary objectives are as follows:

- Improve customer service by reducing system downtime and repair costs
- Provide efficient throughput with RFID intelligent permits and License Plate Recognition (LPR).
- Reduce in-lane queue time for all parkers
- Improve technology to reduce staff hours and enhance customer service
- Improve administration and operations process through enhanced reporting
- Automate multiple credentials for access control and payment options

Compensation Amount and Schedule:

Compensation will be determined based on the Proposal submitted by the selected vendor.

Definitions in this RFP:

The expressions “RFP,” “this RFP,” and “the RFP” refer to this document as it may be amended or updated.

“Reading Parking Authority” “RPA” and the “Authority” mean The Reading Parking Authority.

“City” and “city” mean the City of Reading.

The “Proposal” is the response of a person, vendor, firm, or corporation proposing to provide the services sought by RFP No: 2018-1 for Off-Street PARCS.

The words “Candidate”, “Proposer”, “Vendor”, and “Offeror”, whether used in a singular or plural form, are interchangeably used herein and shall refer to the person, firm, or corporation that submits a Proposal or that is considering the submission of a Proposal.

The word “should” is used to tell Candidates what the RPA thinks it wants and/or what the Authority, and/or any project manager assigned and/or approved by the Authority thinks is best. Candidates that want to increase the likelihood of being selected will, in general, do what the RFP says Candidates “should” do, but failure to comply with all “should” will not necessarily and automatically result in rejection.

Contract:

The RPA anticipates that the conclusion of the RFP process will be a contract between the RPA and the successful Candidate, under which the successful Candidate will provide the information technology goods and services generally described in this RFP.

Trade Secrets and Confidentiality:

As a general rule, all submissions to the RPA are available to any member of the public. However, in the case of Proposals made pursuant to the purchase of information technology goods and services, the Proposals are not subject to public inspection until a contract is awarded. For other materials that qualify pursuant in this section, the Authority will take reasonable steps to keep Trade Secrets confidential.

Definitions in Trade Secrets and Confidentiality:

The term “Candidate” includes the candidate as Proposer (that is, after it is a party to a contract with the Authority).

The term “Trade Secret” means business or technical information, including but not limited to a formula, pattern, program, device, compilation of information, method, technique, or process that:

- (a) Derives independent actual or potential commercial value from not being generally known or readily ascertainable through independent development or reverse engineering by persons who can obtain economic value from its disclosure or use; and
- (b) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. The existence of a Trade Secret shall not be negated merely because the information comprising the Trade Secret has also been developed, used, or owned independently by more than one person, or licensed to other persons.

The term “Record” means all documents, papers, letters, maps, books, photographs, films, sound Recordings, magnetic or other tapes, electronic data-processing Records, artifacts, or other documentary material, regardless of physical form or characteristics, received by the Authority in connection with the Candidate’s Proposal.

- (a) Designation of Confidential Records. To the extent that the Candidate wishes to maintain the confidentiality of Trade Secrets contained in materials provided to the Authority, the Candidate shall prominently designate the material with the words “Trade Secrets” at the time of its initial disclosure to the Authority. The Candidate shall not designate any material provided to the Authority as Trade Secrets unless the Candidate has a reasonable

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

and good-faith belief that the material contains a Trade Secret. When requested by the Authority, the Candidate shall promptly disclose to the Authority the Candidate's reasoning for designating material as Trade Secrets; the Candidate may need to label parts of that reasoning as Trade Secrets. In providing materials to the Authority, the Candidate shall make reasonable efforts to separate those designated as Trade Secrets from those not so designated, both to facilitate the Authority's use of the materials and to minimize the opportunity for accidental disclosure. For instance, if only a sentence or paragraph on a page is a Trade Secret, the page must be marked clearly to communicate that distinction. To avoid mistake or confusion, it is generally best to have only Trade Secret information on a page and nothing else on that page. To the extent authorized by applicable state and federal law, the Authority shall maintain the confidentiality of Records designated "Trade Secrets" in accordance with this section. Whenever the Candidate ceases to have a good-faith belief that a Record contains a Trade Secret, it shall promptly notify the Authority.

(b) Request by Public for Access to Record

When any person requests the Authority to provide access to a Record designated as a Trade Secret in accordance with subsection (a) above, the Authority may:

- 1) Decline the request for access
- 2) Notify the Candidate of the request and that the Authority has provided, or intends to provide, the person access to the Record because applicable law requires that the access be granted, or
- 3) Notify the Candidate of the request and that the Authority intends to decline the request

(c) Defense of Authority

If the Authority declines the request for access to a Record designated as Trade Secrets in accordance with subsection (a), then, in consideration of the promises in (b) above and for considering the Candidate's Proposal, the Candidate agrees that it shall defend, indemnify, and save harmless from and against all charges that arise in any manner from, in connection with, or out of the Authority's non-disclosure of the Records. In providing that defense, the Candidate shall at its sole expense defend Indemnitees with legal counsel. The legal counsel shall be limited to attorneys reasonably acceptable to the RPA.

As used in this subsection (c), "Charges" means claims, judgments, costs, damages, losses, demands, liabilities, fines, penalties, settlements, expenses, attorneys' fees, and interest. "Indemnitees" means the RPA, and officers, officials, independent contractors, agents, and employees of the Authority. "Indemnitees" does not include the Candidate. The Authority may require the Candidate to provide proof of the Candidate's ability to pay the amounts that may reasonably be expected to become monetary obligations of the Candidate pursuant to this section. If the Candidate fails to provide that proof in a timely manner, the Authority shall not be required to keep confidential the Records whose non-disclosure gives rise to the potential

monetary obligation. Nothing in this agreement shall require the Authority to require any person (including the RPA itself) to be placed in substantial risk of imprisonment, of being found by a court to be in contempt, or of being in violation of a court order. This subsection (c) is separate from and is to be construed separately from any other indemnification and warranty provisions in the contract between the Authority and the Candidate.

Insurance:

The selected Proposer agrees to maintain, at its sole expense, at all times during the life of this Contract the following applicable coverages and limits. The requirements contained herein, as well as the Authority's review or acceptance of insurance maintained by Proposer, is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by Proposer under this Contract. Insurance requirements include:

1. Commercial General Liability – Combined single limit of no less than \$1,000,000 each occurrence and \$2,000,000 general aggregate, to include coverage related to product/completed operations, contractual liability or cross liability
2. Automobile Liability – Limits of no less than \$1,000,000 combined single limit. Coverage per accident shall include liability for owned, non-owned and hired automobiles. In the event Proposer does not own automobiles, Proposer agrees to maintain coverage for hired and non-owned auto liability, which may be satisfied by way of endorsement to the commercial general liability policy or separate auto liability policy. Automobile coverage is only necessary if vehicles are used in the provision of services under this Contract and/or are brought on an Authority site.
3. Umbrella or Excess Liability – Proposer may satisfy the minimum liability limits required above under an umbrella or excess liability policy. There is no minimum per occurrence limit of liability under the umbrella or excess liability, however, the annual aggregate limits shall not be less than the highest 'each occurrence' limit for required policies. Proposer agrees to endorse Reading Parking Authority as an 'additional insured' on the umbrella or excess liability, unless the certificate of insurance states the umbrella or excess liability provides coverage on a "follow-form" basis.
4. Worker's Compensation and Employers Liability – Proposer agrees to maintain worker's compensation insurance with Employer Liability limits of no less than \$1,000,000 each accident, each employee and policy limit. This policy must include a waiver of subrogation.
5. Additional Insured – Proposer agrees to endorse the Authority as an additional insured on the commercial general liability on a primary basis. The additional insured shall read "Reading Parking Authority as its interest may appear."
6. Certificate of Insurance – Proposer agrees to provide Authority a certificate of insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect, and certificates of Insurance shall provide a minimum thirty (30) day notice of cancellation, when available, by Proposer's insurer. If Proposer receives a non-renewal or cancellation notice from an insurance carrier affording coverage required herein,

or receives notice that coverage no longer complies with the insurance requirements herein, Proposer agrees to notify the Authority within five (5) business days with a copy of the non-renewal or cancellation notice, or written specifics as to which coverage is no longer in compliance.

The Certificate Holder address should read:
Reading Parking Authority
Attn: Thomas J. MacDougal IV, Executive Director
613 Franklin Street
Reading, PA 19602

7. All insurance companies must be authorized to do business in Pennsylvania with a Best rating A-VIII or higher.

Discretion of the Reading Parking Authority:

1. The Authority reserves the right to reject any or all Proposals.
2. NOTWITHSTANDING anything to the contrary in this document or in any addendums to this document, unless the contrary provision refers specifically to this provision, the Authority reserves the right to negotiate changes of any nature with any Candidate with respect to any term, condition, or provision in this document and/or in any Proposals, whether or not something is stated to be mandatory and whether or not it is said that a Proposal will be rejected if certain information or documentation is not submitted with it so long as any resulting alterations do not go beyond the scope of this RFP in any manner that;
 - (a) deprives the Proposers or potential Proposers of a fair opportunity to compete for the contract; and
 - (b) would have resulted in the award of the contract to a different person or entity if the alterations had been included in the request. For example, all deadlines are for the administrative convenience or needs of the Authority and may be waived by the Authority in its discretion.
3. Where the Authority asks or tells Candidates to do stated things, such as that a Proposal should follow a stated format or that the Candidate should do stated things in seeking the contract, the Authority may reject a Proposal because it does not comply with those requests, so the Candidate is adding to its risk of rejection by non-compliance. Still, the Authority may, in its discretion, waive non-compliance.
4. Once a contract is signed, the parties to the contract may enforce the contract according to its terms as allowed by applicable laws in the Commonwealth of Pennsylvania.

SCHEDULE

This schedule is the Authority's best estimate of the schedule that will be followed. If a component of this schedule from the beginning to receipt of Proposals is delayed, the rest of the schedule will be shifted by the same number of days.

- **Advertisement Date of Request for Proposals (RFP)** **Sept. 10, 2018**
- **Pre-submittal conference and facility tour** **Sept. 19, 2018, 10:30 a.m.**
- **Deadline for written questions** **Sept. 26, 2018, 5:00 p.m.**
- **Addenda (if any) issue date** **Oct. 3, 2018**
- **Proposal due date** **Oct. 19, 2018, 5:00 p.m.**
- **Proposal evaluation committee to complete its evaluation, twenty (20) days after previous step.**
- **Finalist demonstrations and interviews** **November 7, 2018**
- **Proposal evaluation committee to complete its final evaluation, five (5) days after previous step**
- **Reading Parking Authority Board of Directors authorizes the Executive Director to sign the contract, within thirty (30) days after previous step**
- **Chairperson of the Board, Executive Director, and successful Candidate may sign contract, one (1) day after previous step.**

Keeping Proposals Open:

All Proposals will remain open and valid for the Authority to accept for a period of 120 days after the deadline for submission of Proposals. The Authority may release Candidates from this obligation by a written letter that specifically refers to this paragraph if it is determined that the Candidate and/or the Proposal will not meet the Authority's needs.

Deadline to Submit Proposals:

Candidates should see that their Proposals are received at the following address by 5:00 p.m. on October 19, 2018. The Proposals should be addressed to:

**Reading Parking Authority
Attn: Thomas J. MacDougal IV, Executive Director
613 Franklin Street
Reading, PA 19602**

GETTING MORE INFORMATION ON THE PROJECT AND RFP PROCESS

Questions:

Questions about the RFP and the RFP process should be submitted to the Authority's Executive Director.

Pre-submittal conferences:

The Authority will conduct a pre-submittal conference on **September 19, 2018 at 10:30 A.M.** in the Board Conference Room, located at the Reading Parking Authority. Attendees should already be familiar with this RFP. Attendance is strongly recommended, and the Authority may consider attendance in deciding on the award of the contract.

Updates and revisions to RFP:

If you have supplied the Executive Director with your preferred method of contact (email, fax, etc.), updates to this RFP ("addendums" or "addenda") will be sent to you in that manner. This RFP and addendums are normally posted on the Authority's Website. Check that Webpage to see that you have received all addenda. <https://readingparking.com/>

EVALUATION CRITERIA

If an award is made, it is expected that the Authority's award will be to the Candidate that submits the best overall Proposal as determined by the Authority. Several relevant matters will be considered, including qualifications and cost. The evaluation criteria are intended to be used to make a recommendation to the Board of Directors of the Reading Parking Authority who will award the contract, but who is not bound to use these criteria or to award on the basis of the recommendation. The Authority reserves the right to change the criteria and to otherwise vary from this procedure as it determines to be in the Authority's interest. Firms interested in responding to this RFP must provide all information as requested in this Request for Proposal. For consideration, all Proposals should be as responsive as possible to the solicitation. Additional materials in other formats or pages beyond the stated page limit(s) may not be considered. The Authority may reject as non-responsive at its sole discretion any Proposal or any part thereof, which is incomplete, inadequate in its response, or departs in any substantive way from the required format. To adequately evaluate the Proposals, all Proposers should use the following format:

Understanding of the Project

Proposals will be evaluated against the questions set out below.

1. How well has the Candidate demonstrated a thorough understanding of the purpose and scope of the project?
2. How well has the Candidate identified issues and potential problems related to the project?
3. How well has the Candidate demonstrated that it understands the deliverables the Authority expects it to provide?
4. How well has the Candidate demonstrated that it understands the Authority's schedule and will the Candidate meet it?

Methodology Used for the Project

Proposals will be evaluated against the questions set out below.

1. How well does the methodology depict a logical approach to fulfilling the requirements of the RFP?
2. How well does the methodology match and contribute to achieving the objectives set out in the RFP?
3. How well does the methodology interface with the schedule in the RFP?

Management Plan for the Project

Proposals will be evaluated against the questions set out below.

1. How well does the management plan support all of the project requirements and logically lead to the deliverables required in the RFP?
2. How well is accountability completely and clearly defined?
3. Is the organization of the project team clear?
4. How well does the management plan illustrate the lines of authority and communication?
5. To what extent does the Candidate already have the hardware, equipment, and licenses necessary to perform the contract?
6. Does it appear that the Candidate can meet the schedule set out in the RFP?
7. Has the Candidate offered alternate deliverables and gone beyond the minimum tasks necessary to meet the objectives of the RFP?
8. Is the Proposal practical, feasible, and within budget?
9. How well have potential problems been identified?
10. Is the Proposal responsive to all material requirements in the RFP?
11. Location of spare parts inventory
12. Location of maintenance technicians
13. Training program
14. Core reporting
15. Proposed installation plan

Experience and Qualifications

Proposers shall provide a concise description of their work experiences as it relates to the scope of work outlined herein. Said description should include, but not be limited to:

1. Proposer's established experience Record in providing comparable services, to include a description of the Proposer's company history and current operating characteristics to include the number of years in business, philosophy, ownership, number of employees, organizational chart, annual sales, geographic coverage, etc.
2. Number of years the Proposer has been providing these types of services;

3. A minimum of five (5) references for which the Proposer has provided services comparable to those described in this RFP. For each reference, detail:
 - (a) Name of firm;
 - (b) Address of firm;
 - (c) Name, title, e-mail address, phone, and fax of a contact for the firm;
 - (d) Number of years Offeror has served the firm; and
 - (e) Summary of scope of services provided.
 - (f) If Offeror is not a licensed contractor in the Commonwealth of Pennsylvania, the Offeror shall provide information regarding the subcontractor who will be performing installation work (subcontractor must be licensed contractor in the Commonwealth of Pennsylvania.)
4. Additional questions regarding personnel.
 - (a) Do the individuals assigned to the project have experience on similar projects?
 - (b) Are resumes complete and do they demonstrate backgrounds that are desirable for individuals engaged in the work the project requires?
 - (c) How extensive are the applicable education and experience of the personnel designated to work on the project?
 - (d) How knowledgeable are the Candidate's personnel of the local area and how many individuals have worked in the area previously?
5. Additional questions regarding the Candidate firm:
 - (a) How well has the Candidate demonstrated experience in completing similar projects on time and within budget?
 - (b) How successful is the general history of the Candidate regarding timely and successful completion of projects?
 - (c) Has the Candidate provided letters of reference from clients?
 - (d) How reasonable are the Candidate's cost estimates?
 - (e) If subcontractors will perform work on the contract, how well do they measure up to the evaluation used for the Candidate?

Technical Specifications/Requirements

Proposers should ensure that its Proposer-hosted, Web-based, PARCS and all associated back office software platforms meet the requirements as set forth in the Scope of Work.

Cost

The lowest cost Proposal will receive the maximum number of points allocated to cost. Cost is one of several factors, so a Candidate with the lowest cost cannot count on being selected.

CONTENTS OF PROPOSAL

Proposers interested in responding to this RFP must provide all information as requested in this Request for Proposal. For consideration, all Proposals should be as responsive as possible to the solicitation. To adequately evaluate Proposal submissions, the Offerors should use the following format.

1. Cover Letter

The Proposal should contain a cover letter, signed by a principal of the Candidate. The cover letter may be two pages and will not count towards the overall page limit. The cover letter should contain the following statements and information.

- (a) Statement 1: The undersigned, whose title and position with the Candidate are stated next to or beneath his or her signature, has the authority to submit this Proposal (including this cover letter) on behalf of the Candidate in response to the Authority's Request for Proposals.
- (b) Statement 2: Unless otherwise clearly stated in this response to the RFP, our Proposal accepts the terms and conditions stated in the RFP, including the description of services to be performed and the provisions of the contract to be signed.
- (c) Statement 3: This submittal is not an offer, and the Candidate retains the right to decline to enter into a contract with the Authority for this project.
- (d) Statement 4: The cover letter should contain one of the following two paragraphs A or B:

Paragraph A: With respect to all Trade Secrets that the Candidate may submit to the Authority in connection with this Proposal or, if the contract is awarded to the Candidate, the Candidate shall comply with the section of the RFP titled "Trade Secrets and Confidentiality," including all of its subsections, including, specifically, the subsection titled "Defense of RPA." The Candidate acknowledges that the RPA will rely on the preceding sentence. Or;

Paragraph B: The Candidate is not submitting any Trade Secrets to the Authority in connection with this Proposal or, if a contract is awarded to the Candidate, the Candidate

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

will not submit any Trade Secrets to the Authority in connection with this Proposal or the contract. The Candidate acknowledges that the Authority will rely on the preceding sentence.

If the cover letter lacks both paragraph A and paragraph B, or, if the cover letter contains paragraph A but fails to comply with the instructions in the section of this RFP titled "Trade Secrets and Confidentiality," the Authority may treat everything it receives from the Candidate as not a Trade Secret nor confidential, and the Authority may disclose to the public everything it receives from the Candidate.

- (e) Contact information. Include the Candidate's name and address, and the contact information (name, mailing address, e-mail address, fax number, and telephone number) of the person whom the Authority should contact regarding the Proposal.
- (f) Legal Status of the Candidate and Signers. State the full, exact name of the Candidate. State whether the Candidate is an individual, corporation, limited partnership, general partnership, limited liability company, professional corporation, professional association, etc. If it is anything other than an individual or a general partnership, specify the State under which the entity is organized. If the State under which the entity is organized is not Pennsylvania, specify whether the Candidate has received a certificate of authority from the PA Secretary of State to transact business in Pennsylvania. State whether the entity is in existence at the time the Proposal is submitted, and if not, whether and when the Candidate intends to officially form the entity. State the names and titles of the individuals who will sign the contract with the Authority.
- (g) Conflict of Interest. If the Candidate has any grounds to believe there could be a conflict of interest, such as that an Authority employee who is involved in awarding the contract has a connection with the Candidate, please explain.
- (h) Addendums. The cover letter should state that all addendums have been read.

2. Qualifications, References, and Licenses.

Proposer shall provide a description of the qualifications, certifications, and abilities of the organization and personnel who shall be responsible for performance of the services in projects of a similar nature. Such description shall, at a minimum, include the following:

- (a) Provide an organizational chart which clearly identifies the key members of the project team. Subconsultants should be included. Specifically identify the individual(s) who will likely serve as project manager(s) on behalf of the Proposer.
- (b) Provide one-page resumes for all staff included on the organizational chart. Provide the following information on each resume. Resumes will not be counted towards the page limit.
 - a. Name and title

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- b. Firm
 - c. Address
 - d. Phone number
 - e. E-mail address
 - f. Role in and name of similar past projects
 - g. Project responsibilities
 - h. Name of employing company for past projects listed if different from current firm
- (c) Describe any previous collaboration(s) between key team members, the responsibilities of each team member during these collaborations, and the project(s) outcome. Cite any significant achievements reached because of this collaboration. Discuss the successes of the team collaboration, any design or constructability related problems encountered, and methods used to mitigate issues. Describe and number collaborations between staff in the same firm, and collaborations between firms.
- (d) A description of the Proposer's financial stability and other resources that most adequately ensures the delivery of acceptable services to the Authority. The Proposer shall indicate the type of organization they represent, i.e. individual, partnership or corporation. If the Offeror represents a corporation or partnership, the names of the President, Vice-President, and Secretary, Treasurer and all principals or partners shall be listed. The Proposer should provide financial statements, i.e. audited annual financial reports, for the previous three (3) years.
- (e) List the Candidate's current licenses that are pertinent to this project.
- (f) The Authority may reject Proposals from any Candidate that does not hold licenses required by Pennsylvania law to perform the contemplated work.

3. Experience

Proposers shall provide a concise description of their work experience as it relates to the scope of work outlined herein. List a minimum of five (5) relevant, similar projects, either currently in progress or having been completed in the past five (5) years, including any projects within Pennsylvania, containing work demonstrating the skills and abilities of the key team members, as follows:

- (a) List only projects involving the key team members or subcontractors proposed for this Project.
- (b) List projects in date order with newest projects listed first and include the following:

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- a. Brief project description;
 - b. Dates and times the project services were performed;
 - c. Owner's representative having knowledge of the firm's work, include the contact name, phone, e-mail, address;
 - d. Provide the initial award of contract amount, the final contract amount (include all change orders) and the total time to complete the work. Please note whether contract work was completed on time and/or within budget.
 - e. Name of key team member(s) involved; including any changes to the project team and/or key team member(s) after project initiation, and if the key team member(s) completed the project. Include the project's current status if it is not yet completed. If experience for a key team member is listed from a previous employer, fully disclose with what firm the work was performed.
- (c) Provide evidence that the ability to provide on-site emergency service and repair within a maximum of two (2) hours from notification, 24 hours a day and 7 days a week.
- (d) Provide evidence of status as an authorized manufacturer's representative for the equipment it is proposing to supply under this contract. Proposer must also show proof that it maintains local authorized factory trained service personnel who will be available to provide installation and service support for this contract as required.
- (e) All Proposer personnel shall be fully qualified and trained. Provide the names, qualifications, and experience of personnel proposed for this project. Resumes of staff to be assigned to the project may be used.
- (f) Proposers shall submit a list of subcontractors and the local distributor, identifying the nature of work that shall be performed pursuant to this contract and their qualifications.

4. Technical Specifications/Requirements

Proposers should ensure that its Proposer-hosted, Web-based, PARCS and all associated back office software platforms meet the requirements as set forth in the Scope of Work. The technical specifications section shall include the specific specifications of the equipment proposed for the Reading Parking Authority implementation. This includes, but is not limited to: entrance lane equipment, express exit lane equipment, cashier terminal, barrier gates, inductive loops, cloud-based operating system, cloud-based back office software, credit card processing, alarms, status reporting, enforcement compatibility with existing enforcement software, audit capability, mobile license plate recognition equipment, AVI equipment, pay-on-foot stations, integration with Parkeon Strada BNA equipment, online customer portals and special event reservation system, integration with parking wayfinding and availability software platforms, etc. Please be as specific as you can with the PARCS equipment specifications so that the Authority can understand the full capabilities of the Offeror's system.

5. Approach and Schedule for implementing the desired PARCS Technology

The approach and schedule should define how the Offeror intends to implement the system, from selection through ongoing maintenance and operations. The approach should include, at a minimum:

- (a) Implementation schedule: milestones from contract signing through delivery, installation, initial operability and ongoing maintenance
- (b) Installation steps: responsible parties and specific installation steps for proposed equipment
- (c) Operations and maintenance: ongoing maintenance, life expectancy, process for receiving replacement parts, location of replacement facility, typical parts delivery schedule
- (d) Software and management: back-end software, reporting capabilities, ongoing management functionality, ability to remotely manage, access, and modify programming, etc.
- (e) Warranty options and information: provide warranty information for years one, two and three, and the options for extended warranties through year seven. Please provide warranty language.
- (f) Testing plan: proposed test strips for testing of equipment/system once installed. Test plan shall include:
 - a. Individual device testing
 - b. Operational demonstration testing of entire system
- (g) Training plan: plans for providing training for operation, programming, maintenance, testing, parts replacement, management and back end software, wireless communication
- (h) Credit card processing: methods and approach to handle the credit card processing component of the ongoing operations.
- (i) Marketing and education: plan for assisting the Authority with initial marketing, education, and rollout of the new equipment
- (j) Assumptions regarding Authority actions and participation: If your Proposal assumes that the Authority will take certain actions, provide facilities, or do anything else; you should state these assumptions explicitly

6. Approaches to innovation and uniqueness

Please provide a description of innovative or unique features, specific to the proposed equipment or implementation approach, which set the Offeror's Proposal apart from the other prospective offerings. This could include, but is not limited to add-on features, online customer portals,

online special event reservations, unique interface components, advertising or marketing ability, etc.

7. Cost

Total cost to the Reading Parking Authority including fees initially collected for implementation and collected for ongoing maintenance and operations by the Proposer.

8. Equal Business Opportunity Program (EBOP):

It is the policy of the Authority to provide equal opportunities for RPA contracting for underutilized firms owned by minorities and women doing business in the City's Contracting Marketplace. It is further the policy of the City to prohibit discrimination against any firm in pursuit of these opportunities, to conduct its contracting activities so as to prevent such discrimination, to correct present effects of past discrimination and to resolve complaints of discrimination. This policy applies to all professional services categories.

9. Conflict of Interest

If the Offeror has any grounds to believe there could be a conflict of interest, such as an Authority employee who is involved in awarding the contract has a connection with the Candidate, please explain.

10. Non-Collusion

Sign the following and include it with your response:

NON-COLLUSION AFFIDAVIT

By executing this Proposal, I certify that this Proposal is submitted to the Reading Parking Authority competitively and without collusion. I am authorized to represent the Candidate both in submitting this bid and in making this Non-collusion Affidavit. To the best of my knowledge and belief,

- (a) The Candidate has not entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with its Proposal, and
- (b) The Candidate intends to do the work with its own bona fide employees or subcontractors and is not bidding for the benefit of another individual, entity or contractor.

The neuter includes the masculine and the feminine. The Candidate to which this Non-Collusion Affidavit refers is:

READING PARKING AUTHORITY
RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

(Insert name of Candidate)

(Signature of individual)

ACKNOWLEDGMENT

Type or print name of the individual who signed the affidavit:

_____.

Type or print the name of Notary Public signing this acknowledgment:

Place where acknowledgment occurred: County of _____, State of _____

Notary's residence: County of _____, State of _____

I, the Notary Public named above, certify (1) the individual named above personally appeared before me this day, (2) I have personal knowledge, or satisfactory evidence, of the individual's identity; and (3) the individual acknowledged signing the foregoing affidavit. This the ____ day of _____, 20____.

Notary Public

My commission expires: _____

HOW TO SUBMIT A PROPOSAL

Candidates should submit 2 copies of their Proposals in a sealed envelopes. The envelope should be addressed for delivery to the Executive Director at the beginning of this RFP.

Write the following prominently on the outside of the envelope: 2018-001 Off-Street PARCS.

Proposals are to be received no later than 5:00 p.m. on October 4, 2018. Proposals should not be made by email or fax.

Format

The written Proposal shall be signed by an individual authorized to bind the Proposer. The Proposal shall provide the name, title, address, and telephone number of individuals with authority to contractually bind the company and who may be contacted during the period of the contract. All fees quoted in the Proposal shall be firm and fixed for the full trial period and any extension. Failure to follow this format could render the submittal as non-compliant and subject to rejection.

The Proposal shall contain the following:

1. Cover page: (excluded from the 50 double-sided page limit)
2. Letter of Transmittal: (2 double-sided pages, excluded from the 50 double-sided page limit)
Proposer shall provide a one-page Letter of Transmittal that is signed by an individual authorized to bind the Offeror. The Letter of Transmittal shall include the name of the Proposer, contact person, title, address, telephone number, facsimile number, and e-mail address of the individual with authority to contractually bind the company and who may be contacted during the period of the contract.
3. Table of Contents (excluded from the 50 double-sided page limit)
4. Proposal (50 double-sided pages)
5. Technical Specifications: The technical specifications section shall include the specific specifications of the equipment proposed for the Reading Parking Authority implementation. This includes, but is not limited to: entrance lane equipment, express exit lane equipment, cashier terminal, barrier gates, inductive loops, cloud-based operating system, cloud-based back office software, credit card processing, alarms, status reporting, enforcement compatibility with existing enforcement software, audit capability, Mobile License Plate Recognition equipment, AVI equipment, pay-on-foot stations, integration with Parkeon Strada BNA equipment, etc. Please be as specific as you can with the PARCS equipment specifications so that the Authority can understand the full capabilities of the Offeror's system.
6. Approach and Schedule for Implementing the Desired PARCS Technology: the approach and schedule should define how the Offeror intends to implement the system, from selection through ongoing maintenance and operations. The approach should include, at a minimum:

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- (a) Implementation Schedule: milestones from contract signing through delivery, installation, initial operability and ongoing maintenance.
 - (b) Installation Steps: responsible parties and specific installation steps for proposed equipment.
 - (c) Operations and Maintenance: ongoing maintenance, life expectancy, process for receiving replacement parts, location of replacement facility, typical parts delivery schedule.
 - (d) Software and Management: back-end software, reporting capabilities, ongoing management functionality, ability to remotely manage, access, and modify programming, etc.
 - (e) Warranty Options and Information: provide warranty information for years one, two and three, and the options for extended warranties through year seven. Please provide warranty language.
 - (f) Testing Plan: proposed test strips for testing of equipment/system once installed. Test plan shall include:
 - a. Individual device testing
 - b. Operational demonstration testing of entire system
 - (g) Training Plan: plans for providing training for operation, programming, maintenance, testing, parts replacement, management and back end software, wireless communication.
 - a. Training for management
 - b. Training for supervisors
 - c. Training for field staff and office employees
 - (h) Credit Card Processing: methods and approach to handle the credit card processing component of the ongoing operations.
 - (i) Marketing and Education: plan for assisting the Authority with initial marketing, education, and rollout of the new equipment.
7. Approaches to Innovation and Uniqueness: provide a description of innovative or unique features, specific to the proposed equipment or implementation approach, which set the Offeror's Proposal apart from the other prospective offerings. This could include, but is not limited to add-on features, online customer portals, online special event reservations, unique interface components, advertising or marketing ability, etc.
8. Cost: total cost to the Authority including fees initially collected for implementation and collected for ongoing maintenance and operations by the Proposer. Describe the costs

associated with implementation, ongoing operations and maintenance, credit card processing fees, service call fees, replacement parts, add-on features, etc. Please be as specific as possible and provide all known costs associated with the implementation, operation, and maintenance of the PARCS, inclusive of any monthly service fees. Fill in the cost estimation worksheet as completely as possible related to the proposed equipment and implementation approach.

9. Product brochures: include as an appendix, excluded from previous page limitations.

Alternative Proposals

If you wish to submit a Proposal that does not comply with the Authority's standards and expectations, consider submitting two Proposals: a Proposal that complies, plus a Proposal that does not comply, so that your "non-compliant" version can be considered as an alternative if the Authority is interested. This will allow your compliant version to be considered if the Authority remains steadfast on applying the standards and expectations.

Candidate to Bear Expense; No Claims against the Authority

No Candidate will have any claims or rights against the Authority arising out of the participation by a Candidate in the Proposal process. No Candidate will have any claims or rights against the Authority for the Authority's decision not to award a contract to it or for awarding a contract to another person, firm, or corporation, regardless of whether the other person, firm, or corporation participated in the RFP process or did not submit a Proposal that complied with the RFP. A notice of award will not constitute acceptance by the RPA; the RPA's only method of acceptance is the RPA's execution of a formal contract in accordance with applicable law.

Scope of Work

General Technical Specifications

The Reading Parking Authority is issuing this request for Proposals for the procurement of a vendor-hosted, scalable Cloud-based integrated PARCS for all off-street parking garages owned and operated by the Authority. The Authority expects this complete parking conversion will increase overall parking efficiency, system productivity, improve customer service while ensuring data security and system reliability. The desired PARCS will work via Web browser, function on all mobile platforms, possess intuitive user management, accommodate location-based and online sales, have interactive reporting, and provide multiple media access, such as barcode, HID, AVI, Smart Phone, NFC Access, LPR, online reservations, etc.

The Authority may be interested in implementing the same system in future parking needs. The new system will replace the existing Enterprise Facility Management System (EFMS) provided, installed, and maintained by 3M Company and its local distributor. The Proposers will be required to integrate equipment communication systems and use one back-end management system, as defined in the following specifications. The work of this section shall include furnishing all material, equipment, labor, and supervision to install in place a fully operating PARCS as specified herein. Included will be the supply, delivery, unloading, setting, anchoring,

electrical and control wiring installation, electrical and control wiring termination, start up and testing the system, and all associated equipment. Also included shall be **on-site training for RPA staff** as described further in this RFP.

All Proposers are strongly advised to inspect the parking facilities to ensure that there are adequate conduit runs and loops for their proposed equipment and system. If additional conduit runs and loops are required, an itemized listing of the additional conduit runs, and loops must be included with the Proposal along with a fixed price quote for installation.

The PARCS shall have the following requirements and features.

1. The PARCS shall include all hardware, software, licenses, installation, training and support services for the five parking garages previously discussed. The Proposer shall be responsible for identifying existing and needed infrastructure, locating existing and future equipment, PARCS design, installation, power and communication cables, connection, termination, commissioning, training and all related elements to provide a fully operational PARCS system.
2. In the Proposal response, include a list of equipment and related hardware, software, licenses, infrastructure and all related items for each lane and in each garage. If Pay-On-Foot (POF) machines are proposed, provide a list with proposed locations and number of machines at each location. Offerors should include an optional plan to utilize the Parkeon Strada BNA pay stations as Pay-On-Foot (POF) stations in its Proposal to address gated and gateless operating environments.
3. The PARCS shall offer integrated License Plate Recognition (LPR) capture and mobile LPR, data storage and fee calculator.
4. The Proposer shall host the system and provide all needed infrastructure, servers, equipment, communication network, and other elements, at Proposer's site and at RPA's parking facilities and parking management office, to provide an operational parking system. The system will not reside on RPA's network.
5. The PARCS system shall be remotely managed using a fiber optics, Ethernet, or other communication system that is acceptable to the RPA.
6. The PARCS shall offer a flexible cashiered and cashier-less fee collection system.
7. The PARCS shall be able to operate in the following modes (for all facilities):
 - (a) Pay at exit – standard mode
 - (b) Pay on entry – special event mode
 - (c) Pay on foot – standard mode
 - (d) Pre-Pay – standard and special event mode

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- (e) Gated environment
 - (f) Gateless environment
 - (g) Other modes suggested by the PARCS Proposer
8. The PARCS shall offer leading edge parking solutions for the following users and/or type of parking:
- (a) Transient parkers - with and without validation
 - (b) Monthly parkers
 - (c) Downtown residential parking
 - (d) Special lease holders' parking
 - (e) Special event parking
 - (f) Hotel valet parking customers
 - (g) The PARCS shall offer as many vehicular entry options as possible that are suitable and applicable to the parking users and type of parking. The vehicular entry should offer the following options but not limited to: Ticketless options including:
 - a. Using Automatic License Plate Recognition (ALPR) only
 - b. Using LPR and phone number
 - c. Using LPR and driver's license number
 - d. Other ticketless options
 - (h) Pulling a paper ticket
 - (i) Access and self-service transaction processing using Credit Card In and Out (CCIO); Automated Vehicle Identification (AVI) transponders, proximity card readers and bar code/QR code readers, etc.
 - (j) Frequent parker program using Automatic Vehicle Identification (AVI)
 - (k) Frequent parker program using smart phone/cellular technology
 - (l) Frequent parker program using geo-fence
9. Other vehicular entry options offered by the Proposers; SpotHero, ParkWiz, etc

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

10. The system shall provide the Authority to sell weekly, monthly, seasonal, yearly, and special event passes using parkers' license plate numbers. These passes may be sold on a prepayment or post payment basis.
11. The system shall track and identify vehicles (with or without license plate numbers) that remain in the parking garages or facilities after the garages or facilities are closed.
12. The system shall provide the Authority and parking management staff to remotely access (via internet) all functions and data. The Authority and parking management staff will use desktop computers, laptop computers, tablets, and smart phones to access the PARCS.
13. The system shall offer smart phone parking applications that may be used for parking reservations, prepayment, ingress/egress, and payment onsite.
14. The system shall eliminate or minimize open paper tickets. Therefore, the system shall track and generate electronic trails of each transaction and vehicular ingress and egress for management and audit purposes.
15. The Proposer shall provide system security, upgrades, maintenance, and managing access controls. The Authority's Executive Director shall control and manage access control rights. Segregation of duties should be an integral internal control, so that a single individual cannot have access to divert resources.
16. The Authority prefers "open IT architecture" and equipment agnostic approach that allows future scalability and flexibility.
17. The preferred PARCS shall minimize the number of physical devices to reduce operations and maintenance costs and reliance on hardware.
18. The preferred PARCS shall have hardware modules that are easily replaceable and/or repaired. The Proposer shall provide spare hardware modules to the Authority. In case of failure or maintenance, the Authority staff shall replace those modules and send them to the Proposer for repair or replacement.
19. The PARCS shall use leading edge hardware including ruggedized tablets and smart phones.
20. The hardware shall be vandal resistant and shall be designed and protected to properly function in Reading's ambient environment. The hardware selection must consider the number of tourists (or non-repeat customers) that will be using (and in some cases abusing) this system on a daily basis.
21. All field equipment and components shall be fully protected from the ambient environment. Operation of the equipment shall not be affected in any way by normal weather conditions experienced in Reading. At a minimum, operation of the equipment shall not be affected in any way by the conditions listed below:
 - (a) Ambient temperatures: -10°F to 100°F (with addition of solar loading)

(b) Humidity: 0% to 98% (non-condensing)

(c) Rain: blowing rain and snow

(d) Dust: blowing dust and fine particles

22. PARCS software shall be user-friendly and dashboard based. The system shall be designed to provide various standard and custom dashboards for appropriate uses and data manipulations across new as well as existing platforms. The PARCS software shall provide Authority staff, at various levels of access rights, to generate and format custom reports. Below are the minimum revenue reports required for the new PARC system.

(a) Transaction report including revenue type by location

(b) Daily revenue report, including revenue type by location

(c) Revenue alarm report

(d) Outstanding ticket report 0-29 days, 30-44 days, 45-89 days, 90-110 days, 111-1,095 days, and 1,096+ days.

(e) Daily device revenue report including revenue type

(f) Daily lane report

(g) Active access card holder report by location

(h) Card transaction report by date

a. Credit card report by facility

b. By device

(i) By credit card type

(j) Validation report

(k) Non-resettable totals

a. Cash report

b. Transaction report

c. Validation report

(l) Count statistics report

(m) Duration of stay report with ability to breakdown by 30-minute increments

- (n) Entry/exit report by facility and parker type
 - (o) Parking fee report
 - (p) General totals report
 - (q) Detailed activity reports on sales inventory, and statistical data by parker type
 - (r) Ticket tracking
 - (s) Reconciliation
 - (t) End of month closing
 - (u) Accounts receivable
 - (v) Revenue
 - (w) Aging
 - (x) Daily payments by device
 - a. Number of transactions
 - b. Dollar amount, cash and credit
 - (y) Entries (ticket, card access, and total vends) by facility, by lane
 - (z) Exits (ticket, automated exits, card access and total vends) by facility, by lane
 - (aa) Total Exits by facility, by lane
 - (bb) Card reader vends by facility, by lane
 - (cc) Total gate vends (entry and exit) by facility, by lane
 - (dd) Differential count by facility
 - (ee) Hourly peak occupancy reports
23. The system shall offer ease of programming changes, now and in future, related to parking management, operations, and types of users. All programming shall be performed by the selected Proposer.
24. The system shall offer dynamic pricing structure that can be changed on an as-needed basis.
25. The Authority staff shall remotely adjust parking pricing structures.

26. The system shall log and track rate changes and major activities so that audit reports can show when and by whom changes were made.
27. The system shall add future off-street parking facilities (structured parking or surface lots) and offer all PARCS features and services at the new facilities.
28. The payment system must be PCI-DSS, MasterCard, and Visa (EMV) compliant. The payment system shall also stay compliant with future PCI-DSS changes and the Proposer shall provide this assurance in writing.
29. The Authority requires that credit card readers be capable of reading mag stripe products; and the Authority will require integration infrastructure for NFC cards and EMV smart card with chip and pin technology.
30. Under no circumstances, except acts of nature, shall the PARCS be down without the ability of allowing parkers to enter and exit the parking garages/facilities and collecting parking revenues. In the event of losing entry/exit and/or revenue collection capabilities, the Proposer shall reimburse the Authority loss of revenue for the days and nights while the system was down. The amount of parking revenues lost will be determined by the Authority based on the average collected revenue over the past three years for the same days and nights.
31. The system shall include a robust alarm management system. Alarms with visual graphics and appropriate messages shall be provided on computer screens, tablets, and smart phones about all system/equipment failures and customer related issues.
32. After issues are addressed or fixed, alarms should be remotely reset.
33. All equipment shall generate real-time alarms and status reports for maintenance needs, reporting by text messages, and/or e-mails to maintenance staff designated by the Authority.
34. The system shall provide remote management of entry/exit lane equipment including payment devices.
35. If ALPR is used, the system shall manage and recognize license plates on “white” and “black” lists. The system shall send an alarm when a license plate from “black” list is recognized.
36. The system shall track parking occupancy counts in the various parking areas and display vacancy counts in the back-office software platform.
37. The system shall issue, recognize, and track discount coupons that may be offered by the Authority to frequent parkers, at the parking Web site or through smart applications.
38. The current on-street parking citation management system will remain a separate system. At some point in the future, the RPA may choose to integrate the on-street and off-street systems into one system. The off-street PARCS should be capable of integrating with the On-street parking and citation management system as single system operating from the same PARCS.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

39. Credit card types accepted by the PARCS shall include Visa, MasterCard, American Express, Discover, and preferably all major E-wallet systems including Apple-Pay, Samsung Pay and/or Google Wallet. During the implementation phase, the Authority will decide if one or both systems shall be installed.
40. All parking equipment shall be hardwired or wirelessly networked via cellular network and connected to the PARCS. Two-way communications shall be used to monitor equipment status, payments, and usage while also provide remote diagnostics and change settings remotely (e.g., pricing or out of service notifications). Alternative wireless communication solutions may be considered at the sole discretion of the Authority.
41. If a cellular network is used, the Authority requires a minimum of two (2) options for cellular communication providers.
42. Successful Proposer shall have at least two (2) technicians on-site during installation of all PARCS and related equipment.
43. The Proposer shall provide the complete installation of all hardware and software including site preparation, foundations, communication and power conduits and cables, and hard and soft connections.
44. The successful Proposer shall test and initiate the system and other implementation measures before the Authority will start system acceptance tests.
45. The acceptance period will consist of a minimum of sixty (60) consecutive calendar days, twenty-four (24) hours per day, and will begin at 8:00 a.m. on the first workday following “go live” on the new system.
46. During the acceptance period, the system must remain fully operational, must operate without failure, must operate in conformance with the Authority’s functional business requirements, and must operate with response times acceptable to the Authority.
47. If the system fails to meet any of the criteria above, the Authority shall notify the selected Proposer of such failure and the acceptance period starts over at 8:00 a.m. on the first workday following the correction and completion of testing of the failure.
48. The Authority will notify the Proposer in writing of the acceptance of the system if:
 - (a) The performance standard is attained for the duration of the acceptance period
 - (b) All training has been completed
 - (c) All documentation and other deliverables have been received
 - (d) And other items, which will be defined in detail during the contract negotiation phase, have been satisfied.

49. Unless approved in advance by the Authority, primary parking control and revenue control equipment including ticket issuing machines, barrier gates, payment terminals, card readers and lane controllers must be supplied by a single equipment manufacturer to assure quality control, reliability, uniform compatibility and one source service responsibility. Revenue control software may be provided by a secondary source so long as that software has been used, in its current configuration, with the parking control equipment for a minimum of five (5) years at similar parking facilities.
50. Any fiber-optic data or fiber-optic voice communications installation shall be performed by technicians certified for fiber-optic installation.
51. All equipment shall be factory finished with proper priming and powder coat finish to suit the environment in which it is to be installed. **Final color will be determined and selected by the Authority.** All equipment enclosures shall be properly gasketed and sealed for weather tight integrity.

AUTOMATED PAY-ON-FOOT EQUIPMENT (POF)

Automated Payment Stations shall provide the following components and capabilities:

1. POF stations will meet all ADA-AG Installation and operating requirements.
2. POF stations will accept payment by cash (notes), coin, credit card, debit card, QR barcode device, integrated chip and pin reader, and the future planned RPA prepaid parking cards.
3. Front access door will be fitted with appropriate 5-point tamper-resistant locking system (each automated payment station to be keyed differently and unique to this installation) and provide alarm contacts upon entry.
4. POF cabinet shall be weather resistant to all climates and designed for the specific weather associated with Reading, PA. It is the Proposer's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather.
5. POF station will accept and recycle nickels, dimes, and quarters and dispense as required to the parker. All incoming coins will be first placed in the hoppers then to the coin vault within the station.
6. POF Station will accept notes and escrow One, Five, Ten and Twenty Dollar denominations in any sequence during the transaction. The note acceptor will reject from escrow all damaged notes and shall store all approved incoming notes into the vault.
7. POF station shall dispense change in both coin and notes. An integral Note to Note dispenser will contain separate vaults for note storage and will dispense as change back when required. Each denomination will have separate vaults for reloading and real-time management.
8. POF station shall accept validation coupons, chaser tickets, or other credential for partial or full payment of parking fee.

9. Exit grace period shall be programmable by parking facility. The exit grace periods shall be programmable by entry ticket location, not by one general facility configuration.
10. Push-button VOIP intercom integrated into the face of the pay station.
11. Utilize visual instructions for parkers to understand the sequence of events to complete a payment transaction.
12. Issues audio voice annunciation instructions to compliment the visual instructions.
13. Intuitive parker interface monitor/screen with pictographs as necessary to assist the parker through the payment process.
14. Cancel button that allows a parker to cancel a transaction once a parking ticket has been inserted.
15. All static text shall be in English or other approved language with universal icons and graphics.
16. Parker interface capable of displaying two user-selective languages at a minimum, including **English and Spanish**.
17. Colors for the pay stations, all text, and graphics shall be configurable and approved by the Authority and/or any project manager assigned and/or approved by the Authority prior to manufacturing.
18. Integrated and online within the PARCS utilizing TCP/IP.
19. Utilizes single-slot technology for ticket and credit card insertion and reading.
20. Inserted credit cards shall be read in all four directions
21. Illuminated ticket slot.
22. Capable of processing parking fee payments using multiple forms of payment, e.g., any combination of credit card payment, coupon, validation, and the future-planned RPA prepaid parking cards.
23. Barcode reader for reading coupons, tickets, and PDA electronic visual display integrated into the face of the pay station.
24. Capable of completing online, real-time credit card authorization as well as storing offline credit card transactions for uploaded upon re-establishment of communications.
25. Permit the Authority to change the grace time (the number of minutes between the time a ticket is paid and the time a driver exits with vehicle through exit lane).
26. Log when a cabinet has been opened or closed; password entry required to allow software access; date, time and user recorded in real-time on the event log.

27. Receipt generation - Upon successful payment, print a receipt that includes:

- (a) City address
- (b) City telephone number
- (c) Receipt #/Transaction #
- (d) Pay station identification number
- (e) Time, date, and lane in
- (f) Time paid
- (g) Length of stay
- (h) Parking fee
- (i) Total amount
- (j) Validation amount
- (k) Method of payment
- (l) Credit card type and last four (4) digits of credit card #
- (m) Amount paid
- (n) Change due
- (o) The Authority shall have the option to change receipts for all transactions to be auto

Issue or by request. The configurable timeout function for receipt request shall be initially set for twenty (20) seconds or until the next ticket is inserted.

- (p) Receipt stock low alarm generated

28. As part of their proposal response, the Proposer shall submit shop drawings/cut sheets of proposed automated payment stations.

EXIT STATION (CREDIT CARD STATION)

1. Automated credit card exit station (no cashier) shall be installed and will allow customers to pay by credit card or by the Authority's prepaid parking card (future-planned).
2. Exit station cabinet shall be weather resistant to all climates and designed for the specific weather associated with Reading, PA. It is the Proposer's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

3. The exit station shall be capable and programmed to perform automated processing of credit card exit transactions and pre-paid tickets. Both modes shall be active simultaneously.
4. The exit station shall include a two-line visual display capable of being programmed to automatically provide visual prompts at each step in the transaction process and for other likely events, such as insertion of the credit card before insertion of the ticket. Minimum character height for the display shall be 3/8 inch.
5. The exit station shall include a programmable/recordable voice annunciation capable of automatically delivering audible message prompts at each step in the transaction process or in response to likely deviations.
6. The exit station shall be equipped with a single slot for accepting credit cards.
7. The exit station shall be online with the central computer and/or credit card server.

BARRIER GATES (GATED ENVIRONMENT)

1. Barrier gates shall be Underwriters Laboratory (UL)-Approved and labeled on the exterior of the cabinet.
2. Barrier gate cabinet color shall be determined by the RPA.
3. Barrier gate shall display on the exterior of the cabinet a model plate indicating the manufacturers name, address, model number, serial number, main power supply, secondary power supply ratings, and amperage ratings.
4. The barrier gate shall provide an effective ingress and egress to one-way vehicles in the entrance and exit lanes. The barrier arm shall retract quickly in a vertical plane on a command signal from the entry station - ticket dispenser, exit station, LPR/RFID permit reader, card reader, or detector loop depending on location, and return to the lower position upon a signal from a detector ("closing loop") located beyond the gate arm. Electronic sensor switches or variable motor measurement is preferred over mechanical limit switches to control the up and down stopping points of the barrier gate arm.
5. Barrier gates may be online to the central computer and shall be capable of responding to remote "raise", "lower", "open lane" and "close lane" commands through a network device from the central computer. A real-time status condition is required for all barrier gates.
6. Barrier gates shall transmit status messages to the central computer to indicate "UP" and "DOWN" status and gate malfunction or alarm condition.
7. The barrier gate shall be installed and shall incorporate in one housing all necessary components for the functioning of the unit. The assembly shall operate in the environmental conditions of the installed location.
8. The unit shall include a ten (10) foot arm of reflective aluminum construction. The barrier arm shall be a breakaway design that can be easily be replaced when broken. The height of

the gate arm shall be approximately thirty-six (36) inches from drive level in the DOWN position. Provide and install articulating gate arms where required by low ceiling height.

9. Each barrier gate shall be installed with an audible alarm and a visual warning beacon to warn pedestrians of the moving gate arm.
10. The barrier gate shall remain in the up position so long as a presence is detected on the closing loop.
11. The barrier gate arm shall have a down strike safety feature. Pursuant to this feature, should any object be struck by the gate arm during its descent, the arm shall immediately reverse and return to the up position without damage, and remain up from two (2) to sixty (60) seconds, until automatically reset by an internal variable control. The sensory function shall be initiated by sensing the internal mechanical action. The external mounting of tubes, wiring, and electrical devices on the gate arm shall not be acceptable.
12. The barrier gate arm shall return to the down position after a programmable period if vehicle passage through the gate is not completed and there is no vehicle presence on any detector loops in the lane.
13. If a barrier gate remains in the up position when there are no vehicles detected on the lane loops, the gate shall send an alarm signal to the central computer.
14. If an entry barrier gate remains in the up position for more than sixty (60) seconds without completing a vehicle entry sequence, the gate shall send an alarm signal to the central computer.

WIRELESS DATA AND MANAGEMENT SYSTEM CAPABILITIES

1. The system shall remotely communicate with all devices in real-time for a general broadcast of information or software update or communicate to a single device to upload information or software. Broadcasting information such as rate changes shall be in real-time to all field devices. The system shall include the functionality to remotely shutdown a field device's operating system, upload updates, and remotely restart the field device.
2. System shall generate alarms for any user selectable event type. Alarm hierarchy shall be configurable so that the Authority can adjust priority of alarms, audible tones, where the alarms are sent, etc. Initial alarm hierarchy shall be coordinated with the Authority during implementation.
3. Management system shall be a Web-based system accessible via desktop computer, laptop computer, or handheld wireless devices to authorized personnel. No additional software other than an internet browser shall be required for management to access and fully use the PARCS and its components. The Proposer shall provide access to the hardware and software management system by authorized users 24/7 over the Web. Proposers shall list and provide all equipment and software necessary for the Authority to operate software systems including desktops, laptops, handheld devices, and servers which the Authority would need at the time of installation. Access rights to the system for Authority staff and others shall be defined

during implementation. Proposer shall identify the ongoing and annual costs associated with the PARCS in their proposal.

4. The server mentioned above in item #3 shall be maintained by the Proposer. All needed software, anti-virus, anti-malware, anti-adware, security updates, system updates, and patches shall be provided installed, and Authority staff shall be trained by the Proposer. This server shall not be connected with the Authority's computer network.
5. All parking facilities, field equipment, office equipment, and access from tablets and smart phones shall operate from the same PARCS management software.
6. PARCS shall provide role-based access control using the principle of least privilege for all system functions including system administration and security administration.
7. PARCS shall provide a variety of reports to include financial, technical, and administrative functions via a single Web-portal.
8. PARCS shall export all query results to multiple formats including comma-separated value, Microsoft Excel, Microsoft Access, Adobe Acrobat (.PDF), etc.
9. The Proposer shall install, configure, and maintain all application software and firmware required by the PARCS. All software licenses shall be registered to the Proposer. The Authority will not accept any software license terms and conditions.
10. The PARCS shall automatically detect and report fault conditions through the management system. The system shall perform a self-check on a routine basis and provide notification for fault conditions and equipment failure and maintenance.
11. The system shall monitor and report status of all hardware, software, and communications links.
12. Industry standard software shall be utilized. Each such software shall be identified in the Proposal. The Proposal shall state the purpose of each software, where it will be used, and how it will be used. If one software application is required to interface with another software platform, the interface shall be documented and supported by flowcharts or block diagrams as appropriate. The Proposer shall advise the Authority if the software used in the system will be customized or "off the shelf" software, and shall describe the method of obtaining further software updates/upgrades or modifications.
13. Application software shall be written in a standard, industry-accepted computer language such as Java, C++, Visual Basic, etc. The Proposer shall identify the version of software that will be used in their proposed system.

VEHICLE DETECTION LOOPS AND VEHICLE DETECTORS

1. The Authority currently has vehicle detection loops in all of its parking garages.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

2. The Proposer should ensure that detectors shall be installed for barrier gates, ticket dispensers, exit stations, LPR camera readers, LPR/RFID antenna/reader, PROX/bar code readers, count system and any other device that requires loop detection input to function as a complete system. Regardless of quantities detailed in this RFP, a sufficient number of detectors shall be installed to provide the directional logic necessary to the equipment functions described in this RFP.
3. The parking equipment detector loops installed by Proposer shall be complete and terminated at the vehicle detectors without breaks or splices.
4. Proposer shall be responsible for complete installation of the embedded loops, including required saw-cuts.
5. Approved loop sealant must be used in order to provide weather and moisture protection for the loops.
6. Proposer shall use care and diligence in making saw-cuts to avoid contact with, or exposure of, embedded concrete reinforcement or cabling.
7. Proposer shall use care and diligence in locating embedded loops so as to avoid interference from other metal objects. Proposer shall repair any damage to concrete curbs or islands resulting from the installation.

INTERCOM AND CAMERA SYSTEM

1. The Proposer shall provide a turn-key IP intercom system that consists of two host intercom stations, an integrated camera system, and an integrated microphone and speaker in each entry station, express exit station, automated pay-on-foot stations, permit lanes, etc.
2. The intercom shall be a push-button intercom such that in the event a parker needs assistance while stopped in a lane, the button can be pushed, and a connection established between the field location and any host intercom station.
3. In the event that the arming loops are triggered for a configurable amount of time with no transaction being initiated, the intercom station in the lane shall automatically call the RPA.
4. The intercom system shall utilize VOIP.
5. The intercom and camera communications shall be directed to a command desk console located in the parking office with roll over capabilities to a second call center station as designated by the Authority. The parking office shall be equipped with an intercom base station that displays the physical location of the incoming intercom call.
6. Once activated, two-way communication shall be possible, and the intercom line shall remain open until the parking staff member terminates the call.
7. It shall be possible that if one intercom is open, and a second call comes in, the parking manager shall be able to place the first call on hold and answer the second call.

8. As part of their Proposal, the Proposer shall submit shop drawings of the intercom and camera base station and push button intercom terminals.

CUSTOMER PROCESSING PROCEDURES FOR LOCATIONS WITH PARCS EQUIPMENT

1. Public entry procedures: the following shall take place for all entry events:
 - (a) When the entry lane arming loops are not activated, the screen shall display the Reading Parking Authority current logo, date, and time.
 - (b) When the vehicle activates the arming loops, the message on the Entry Station's display shall read, and an audible voice shall sound, "Press Button for Ticket".
 - (c) Upon clearing the barrier gate's closing detector, the barrier gate arm shall lower to the closed position and reset the lane for a subsequent transaction.
 - (d) The barrier gate's mechanical counter shall increment by a count of one.
 - (e) The entry event shall be validated and the associated data with the entry event shall be stored.
 - (f) The parking space count system shall decrement the number of available spaces by a count of one from the appropriate facility.
2. Normal entry with ticket
 - (a) When a patron presses the ticket issue button, no other entry method is allowed at that point and the entry station shall issue a uniquely numbered parking ticket while an audible signal shall sound. The entry station shall dispense a magnetically encoded or bar code imprinted parking ticket and print on the ticket the year, month, date, entry time (hour/minute/second), facility code, lane number, entry sequence number, unique transaction number, and unique machine number. Abbreviations are acceptable; time stamps shall be in 24-hour, military time.
 - (b) When the printed/encoded ticket is extracted from the entry station, the audible signal shall cease, and the display shall read, and an audible voice shall sound "Welcome to the City of Reading." The barrier gate shall rise to the open position, allowing the vehicle to enter the parking facility.
3. Back out at entry: If a patron pushes the ticket issue button and backs out of the lane without retrieving the ticket the barrier gate shall remain closed and the ticket shall be retracted and retained in the entry station. The ticket shall be invalidated by the entry station and within the system to prevent future use. The back out entry event shall be stored in the system and the lane shall reset for a subsequent transaction.
4. Stolen ticket at entry: If a patron pushes the ticket issue button, retrieves the ticket, and then backs out of the lane the barrier gate shall automatically return to the closed position (no

timed delay to lower the barrier gate arm to the closed position shall be acceptable), the ticket shall be invalidated within the system, and an alarm shall be generated. The stolen ticket entry event shall be stored in the system. The ticket shall be electronically invalidated and shall not be allowed to be processed at any exit.

EMV AND NFS CREDIT CARD READER CONVERSIONS

1. The reference to credit card readers for use within the PARCS RFP refers to traditional mag stripe credit card acceptance in use today and EMV readers.
2. It is paramount to the Authority that the Proposer provides the replacement hardware, software and all technology requirements, including maintaining PCI-DSS Compliance, for all future use, implementation, installation, and PARCS interface of EMV (chip and pin) and NFC Payment acceptance devices.
3. The Proposer must also recertify pursuant to PCI compliance for all payments and all parking applications at the entry station, automated payment stations, and exit stations for all methods of credit card payments.

CREDIT CARD PAYMENTS AND COMPLIANCE QUESTIONS

1. **The Reading Parking Authority currently uses Total/Global Merchant Services (possibility of using Heartland in the near future)** for clearing credit card transactions. The Proposer shall include with their Proposal, confirmation that their system has a certified interface for processing credit card transactions through **Total/Global Merchant Services and Heartland Merchant Services**. In the future, the Authority may wish to change credit card clearinghouses. As part of the Proposal, the Candidate shall provide a list of clearinghouses for which they have a certified interface.
2. Describe in detail and provide a flowchart of the entire credit card process including all third-party appliances and software.
3. All Proposer-provided aspects of the credit card processing subsystem shall be PCI-compliant, such that no Proposer-provided product or solution will prevent the Authority from achieving PCI compliance in its parking operation. Is the process for credit card processing PCI DSS and/or PADSS compliant? Describe your cardholder processing systems' Payment Card Industry (PCI) Payment Application.
4. Does the implementation, including any required auxiliary servers, store the card holder PAN on hosted servers for any length of time at any time during the credit card payment process?
5. Please provide information on where the Authority can verify your application and/or payment gateway compliance - on the PCI Standards validated payment applications list or on the Visa's Global Registry of Service Providers – PCI DSS Validated Entities compliance list: The three major players in PCI Compliance are:

Security Metrics <https://www.securitymetrics.com/>,
Trustwave <https://www.trustwave.com/home/> and Control an <https://www.controlscan.com/>.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

6. For parking lots/decks requiring a payment to park, the mobile Web application or native application will provide user the ability to pay via their mobile device. Respondents must specify how the application will meet PCI compliance for payments.
7. Describe in detail and provide a flowchart on how the credit card payment is relayed in the system that you are proposing from the handheld devices in remote locations to the PARCS system.
8. Because credit card processing is critical to the Authority's parking operations, processing redundancy shall be built into the system. The Proposer shall provide a system such that processing credit card transactions shall not degrade the time allowed for positive authorizations. The system shall process and store credit card transactions at each field device that accepts credit cards while in an offline mode due to a communication loss. Specifically, every express exit station and cashier station shall process and store credit card transactions during a communication loss regardless of where in the network the communication loss occurs. For example, if the communication cable to an exit station is unplugged inside of the express exit station, that express exit station shall process credit card transactions without achieving real-time authorization and shall store all transactions in a PCI-compliant manner until communication is reestablished. Once communication is reestablished, the system shall request authorization for all credit card transactions that were processed while offline. If a credit card transaction is denied, the Authority shall receive notice of such denial in the revenue reports and as a posting to the daily event log.

UNINTERRUPTABLE POWER SUPPLY (UPS)

1. A single UPS unit, appropriately sized, shall support all devices at an individual entry lane or exit lane with the exception of cashier booth HVAC units. UPS units that supply conditioned and back-up power to multiple components are required to minimize maintenance.
2. Conditioned/emergency power through the TCP/IP-enabled UPS units shall be provided for the following components and facilities to protect components from loss of power, power spikes, and power sags:
 - (a) All entry lanes
 - (b) All automated payment stations
 - (c) All cashiered exit lanes
 - (d) All exit lanes
3. UPS battery back-up for all lanes shall be sized to last sixty (60) minutes.
4. An online, solid state UPS shall provide both backup power and transient surge protection. The Proposer is alerted to the fact that there are several power distribution panels providing electrical service Campus wide. The Proposer shall be responsible for providing the UPS backup requirements for each of the locations where UPS backup is required, based upon the equipment that is being supplied by the Proposer. The Authority shall review and approve the

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

UPS units to be provided by the Proposer. The Proposer shall test all UPS system components during the site acceptance tests for each parking lane/facility. The UPS shall be sized with a 20% spare capacity minimum.

5. The UPS shall consist of a power module; storage battery and a battery disconnect switch.
6. The UPS shall have a lockable weather resistant UL designation suitable for outdoor mounting.
7. All UPS units shall be SNMP compatible to allow automated notification when battery power is activated, or the battery levels become critically low. Online communication using an appropriate UPS monitoring software application shall be provided on one or more workstations with user selectable options to view the status of each individual installed UPS unit. At a minimum, the monitoring software shall display the operational status of each UPS unit (line/battery, online/offline) and generate alarms in the event the UPS unit's battery power is activated, becomes low or is completely exhausted.
8. As part of their Proposal, the Proposer shall submit shop drawings of all proposed UPS devices and UPS monitoring software. Included in the UPS shop drawings shall be the manufacturer's recommended battery refresh cycle.

PARCS DATA MIGRATION

1. Proposer shall convert all data in the Authority's existing monthly parking permit system.
2. Proposer shall be responsible for the importing of existing data on the current system to the new PARCS system.
3. Proposer shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system.
4. A reference file of the old system account numbers with a link to the new account numbers shall be available in the new system.

TRAINING

1. By means of instructional classes, augmented by individual instruction as necessary, the proposer shall fully instruct the Authority's designated staff, including contractual staff, in the operation, adjustment, and maintenance of all products, equipment, and systems. Should implementation be completed in phases, instructing the Authority's personnel shall also be phased to correspond with deployment of the various components.
2. Scheduling of instruction classes shall be coordinated by the proposer and Authority personnel to avoid conflicts and peak period personnel demands. The Proposer shall submit a proposed instruction schedule at a joint meeting conducted prior to equipment installation. The Authority shall tentatively approve or suggest changes to the training schedule at that

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

time. Forty-five (45) calendar days prior to each instruction session, the proposer shall submit an outline of the instruction material and approximate duration of the session. Ample time shall be allotted within each session for the proposer to fully describe and demonstrate all aspects of the parking program and allow Authority personnel to have hands-on experience with the parking program.

3. Provide eighty (80) hours of on-site instructions to Authority staff. Specific allocation of training time to be determined by the Authority.
4. The proposer shall train and certify up to twelve (12) management, supervisor and parking operator staff on back-office software and operational systems. The training and certification shall include identifying and fixing minor hardware maintenance and operational issues. The appropriate duration of training shall be determined by the proposer. All software modifications and maintenance shall be performed by the proposer.
5. The successful proposer shall provide robust training and certification programs for the parking management staff to operate their PARCS (software and hardware). The initial system and operational training shall be offered on site at the Authority's facilities before the system acceptance tests are initiated. Additional training may be offered at Proposer's headquarters, at Authority's facilities, via webinar, videos, and/or online training. The type and locations of training may vary based on training level and personnel being trained. The proposer shall identify in its Proposal various training programs, types, and locations for various staffing levels.
6. Provide an additional twenty-four (24) hours of on-site training, in any area, at the Authority's request, during the first twelve (12) months after system startup.
7. Provide an additional sixteen (16) hours of on-site training, in any area, at the Authority's request, within twelve (12) months after system acceptance.
8. Refresher courses shall be offered on predefined schedules and/or at Authority's requests. The refresher courses shall be offered in the City of Reading, PA. The Proposers shall identify the frequency and duration of each refresher course.
9. The Proposer shall provide training on an individual basis or in a group setting as approved by Authority for the operation and maintenance of the PARCS (hardware and software). The Proposer shall provide a training program for technicians and staff responsible for:
 - (a) Installation, start up, and maintenance/repair of each equipment
 - (b) Programming rates, access controls, etc., through the PARCS software
 - (c) Monitoring the system and equipment, generating reports and internal auditing
 - (d) Other related elements
10. The proposer shall provide draft training manuals for review by the Authority for each type of personnel to be trained (auditor, supervisor, administrative service, etc.) and shall provide

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

a training schedule for both software and hardware within forty-five (45) days prior to the scheduled training. The schedule shall include periodic refresher training (continual education), included but not limited to, emphasis on particular areas of the Authority's choosing and in regard to upgrades of software and/or hardware.

11. An instructional notebook or user's manual shall accompany every instruction course. The Proposer shall submit a hardcopy of the user's manual per the submittal guidelines. The Proposer shall supply ten (10) bound, hardcopies of each user manual type: cashier, supervisory, image reviewer, system administrator, technician, audit and accounting, etc. In addition, two (2) copies of all manuals (instruction and maintenance) shall be submitted in electronic format (.PDF) on a CD-ROM, DVD, or USB drive. The user's manuals shall be written in common English with appropriate photos, diagrams, and schematics to supplement the text. The Authority reserves the right to prepare additional copies of the course materials as needed.
12. The Proposer shall provide all documentation required for instructing Authority's personnel. Documentation shall be provided for each student in the form of workbooks, lecture notes/overheads, and manuals for student markup. The Proposer-supplied instruction documentation shall be sufficiently detailed so that the user can in most cases resolve issues. The Authority retains the right to copy training materials as frequently as required for ongoing internal use only.
13. All instruction courses shall consist of classroom instruction and actual "hands-on" experience. Classes shall be set up in a room designated by the Authority. The proposer shall provide one instructor for the duration of each program. The instructor shall speak fluent English in a clear and precise manner. The proposer shall submit resumes for each proposed instructor. RPA reserves the right to request replacement instructors.
14. Class content shall be coordinated and developed with the Authority so that procedures for all transaction types are included.
15. The class material shall include schematics, as well as an overview and descriptions of the equipment. The Authority reserves the right to record all training sessions for future instruction purposes or proposer shall supply video demos if available.
16. Proposer shall include "Training the Trainer" as part of the training plan. The Authority trainers and supervisors shall be trained and participate in teaching the training classes. Proposer shall be responsible for training all Authority trainers and supervisors as part of "Training the Trainer." Proposer shall train up to ten (10) Authority trainers and supervisors.
17. The Authority shall have authority to copy and distribute training materials at its discretion. The Authority requires the written permission from the proposer or any third-party to reproduce, modify, and print all training material, including copyrighted material, thirty (30) calendar days prior to training.
18. At the completion of instruction courses, all Authority staff that completes the courses shall receive a certificate of successful completion.

IMPLEMENTATION SPECIFICATIONS

1. The successful proposer shall submit a detailed transition and implementation plan with the Proposal for the transition from the existing system to the new PARCS. The implementation plan shall be a complete plan for implementation, training and testing and shall include provisions for the new PARCS to operate concurrently with the old system until implementation is complete. This plan shall be developed in an industry standard project management software and should include but not be limited to the following:
 - (a) Milestone dates in the form of a Gantt chart schedule
 - (b) Narrative description of phasing to decommission each lane, install new field devices, perform Lane Acceptance Testing (LAT), and activate for public use
 - (c) A lane switchover approach
 - (d) Training timing as system is activated
 - (e) Decommissioning strategy for existing PARCS equipment that maintains all critical systems and functionalities throughout the switchover process
 - (f) Proposer recommendations that benefit the overall project schedule and switchover process.
2. The Proposer shall submit details of at least five (5) facilities where similar systems are installed and operational. The Authority's staff and its representatives may visit these sites to learn and evaluate the capabilities of those systems. These site visits will be organized by the Authority.
3. The implementation plan shall also include a software and hardware testing phase. The schedule shall include fixing any issues or "bugs" that may be identified and retesting the system after the issues are fixed.
4. Provide qualified staff that shall assist, consult, install, train and oversee the system implementation.
5. Upon award of the RFP, signing of the contract and within ten (10) days of receipt of the executed contract, the successful Proposer shall provide a complete project timeline to the RPA.
6. Provide integrated implementation process that incorporates online tools, on-site and Web-based technical services and on-site consultation.
7. Assist in the development of reports prior to implementation.
8. Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up.

AS-BUILT DOCUMENTATION

The Proposer shall submit as-built documentation of all systems and components installed as part of this project. As-built documents shall include depiction of the actual installed conditions of all equipment and cabling components. In addition, as-built documentation shall include configuration settings of each system upon the completion of any acceptance test. Proposer shall update the most recent as-built documents submitted as further changes occur in the field or as a result of a patch or upgrade to an installed system.

ONGOING TECHNICAL SUPPORT

1. The Proposer shall provide an ongoing management service contract for maintenance of all hardware, software, equipment, servers, hard and soft connections, communication network, and other elements. The Proposer shall identify the costs of a management service contract on a yearly basis.
2. The Proposer shall identify the life expectancy of each piece of equipment, hardware, software and other elements and an estimated schedule for replacing each item/element under normal usage. Items that are not repairable or failing repeatedly shall be replaced after three repairs.
3. The Proposer shall provide a point of contact that is able to be reached Monday through Friday during normal operating hours (8 a.m. to 7 p.m.), Eastern Time.
4. The Proposer shall also provide a point of contact for after hour requests (6 p.m. to 8 a.m.), weekends, and holidays.
5. The Proposer shall return phone calls within two (2) hours should the Authority need assistance. After two (2) calls from the Authority to the Proposer, the Authority may assess \$500 for every hour until the Proposer calls back to the Authority.
6. Within four (4) hours, the Proposer shall address issues that can be fixed through remote internet access.
7. The Proposer shall send a technician within twelve (12) hours if a technician needs to be onsite to address the issue, including weekends and holidays. Addressing or fixing issues via internet will be acceptable.
8. Under no circumstances, except acts of nature, shall the PARCS be down without the ability of allowing parkers to enter and exit the parking garages/facilities and collecting parking revenues. In the event of losing entry/exit and/or revenue collection capabilities, the Proposer shall reimburse the Authority for all lost revenue for the days and nights while the system was down. The amount of lost revenue will be determined by the Authority based on the average collected revenue over the past three (3) years for the same days and nights.
9. The Proposer shall provide to the Authority, thirty (30) days before system start up, a regular and preventive maintenance schedule to ensure optimal system performance.

DISASTER RECOVERY PLAN

1. Proposer shall provide a written disaster recovery plan. The plan shall provide the step-by-step procedures for disaster recovery for each point of failure. These procedures shall be comprehensive.
2. The first steps of the plan shall be in diagnostics. The remaining steps shall provide procedures for resolution in order to bring the system back to full operational status.
3. Should disaster occur immediately following, or as a result of, a patch or software update, the disaster recovery plan shall return the system to the software version in effect prior to the patch or update being applied.
4. Points of failure shall include each component and sub-component in complex units, such as servers.

The disaster recovery plan shall include requirements for and location of all spares. (See page 68 for specifics: **SPARE PARTS INVENTORY**)

PARCS MAINTENANCE CONSIDERATIONS

Proposers shall provide the Authority with complete PARCS support for the new PARCS System to comply with the system availability and reliability requirements defined herein. The service coverage for hardware covered by the maintenance contract is twenty-four (24) hours per day, seven (7) days per week, and three hundred sixty-five (365) days per year. Proposer-certified technicians shall provide total system support.

Access to a Proposer-certified technician includes contact by telephone, e-mail, and online problem reporting tools and on-site, as needed, to provide the levels of support defined within the Contract. The Proposer shall furnish all labor, materials, equipment, travel, supplies, parts, supervision, warning signs, other safety devices, and all other things necessary or proper for, or incidental to, such maintenance required to maintain and repair all PARCS hardware installed as part of this project, as well as all PARCS hardware, for the new systems during the term of the maintenance portion of this Contract. The scope of the maintenance work includes preventive maintenance and remedial services maintenance.

The maintenance program shall be performed to keep the PARCS operating in a proper, safe, and efficient operating condition. Repairs and/or replacements shall be performed in accordance with the manufacturers' written instructions. The program shall consist of three parts:

1. Preventative maintenance of the PARCS, as described below
2. Remedial maintenance of the PARCS, which consists of service calls from operations personnel and/or Authority personnel regarding components of the system not working in accordance with the Contract, regardless of the cause
3. Software maintenance of the PARCS, which consists of maintaining all software furnished, installed and used by the proposer as more fully described below

The Authority reserves the right to require the proposer to utilize specific third-party subcontractors where the Authority believes that the successful completion of work is dependent on the skills provided by such resources.

PREVENTATIVE MAINTENANCE

1. The maintenance services to be provided by the proposer include maintenance for the PARCS hardware and software components used for the Authority's parking operations and subsystems. The services proposed by the proposer shall also cover any additional subsystems that are installed by the proposer as part of this project.
2. The Proposer shall be required to provide resident technicians at the Authority parking facilities during the preventative maintenance periods to maintain the PARCS after the first lane has been accepted and is in revenue use.
3. As part of the response to this RFP, the proposer will propose a preventative maintenance schedule for the Authority that does not require resident technicians to report daily to Authority facilities.
4. As part of the response to this RFP, the proposer will submit the details of the necessary preventive maintenance tasks for the PARCS. Scheduled preventive maintenance shall include, but not be limited to, inspection, testing, cleaning, lubricating, painting, adjustment, repairs, the replacement of field installable parts, including external cabinets, that are approaching unserviceable status, and all actions necessary to prevent system failures and extend the PARCS useful life. Proposer shall conduct preventative maintenance as accepted by the Authority in this Contract.
5. The Proposer will be required to conform to the Authority's on-site reporting procedures at each parking facility regarding technician arrival and departure for normal and off hours work.

REMEDIAL MAINTENANCE

Remedial maintenance of the PARCS at the Authority's parking facilities shall consist of service calls from operations personnel and/or Authority personnel regarding components of the system not working as designed, regardless of the cause.

Upon request, the Proposer will be required to perform analysis and diagnosis of problems and other issues with all PARCS software. In the course of discharging this responsibility, the Proposer shall engage the assistance of the manufacturer to resolve issues related to software problems when necessary and where appropriate. On an "as needed" basis, the Proposer will be required to provide the Authority with technical support and respond to questions with respect to any equipment and software system. Such support will be provided at no additional charge to the Authority.

SYSTEM UPDATES

1. System updates shall consist of all actions necessary to incorporate hardware and software updates in the PARCS to ensure performance to original Specifications. Maintaining the System to keep it up to date shall be included in software license costs. Proposer shall provide error correction, updates and third-party software only after obtaining the written approval of the Authority. Vendor supplied documentation of updates to reflect these software changes shall be submitted within fourteen (14) days of completion of said software updates. Proposer shall also make new releases of third-party software available to the Authority at the Authority's option and expense.
2. The Proposer shall provide system updates services on a basis that ensures that the system software, including all third-party software, shall be the manufacturer's "current" version. The Proposer shall have fourteen (14) calendar days from the time an update or patch is released by the software manufacturer to process updates and patches in accordance with the requirements stated in the software maintenance section herein, except security vulnerability patches, which must be processed as soon as possible.
3. Proposer shall test all software upgrades, modifications, and changes in the proposer provided test system prior to implementation in the production system. The Authority shall provide approval to migrate to a production environment prior to implementation. Depending on the severity of the upgrade, modification or change, the Authority may choose to witness testing before approving implementation in the production environment.
4. Proposer shall provide a change control methodology to document system changes and approvals prior to implementation.
5. The Proposer shall support upgrades to its application based on operating system patch and upgrade requirements (For example, if the PARCS runs on a Microsoft operating system, the software shall be patched according to the Microsoft patch and upgrade schedule without breaking any application. If Microsoft decommissions a specific version of an operating system, the Proposer shall release code compatible with next operating system upgrade prior to Microsoft ending support for current operating system, at no cost to the Authority.)
6. The Proposer shall commit to provide corrective patches and upgrades in the event security vulnerability or system availability issues are found within fifteen (15) business days of said discovery or sooner if approved by the Authority.
7. Copies of all software (and software updates/upgrades made during and after the warranty period) must be provided to the Authority at the conclusion of the warranty period.

SOFTWARE MAINTENANCE

For all PARCS Systems (including their component equipment) covered under this Contract, the Proposer shall provide software maintenance for the operating system, applications software, third-party software and third-party tools, and database that was furnished and installed by the Proposer. Software maintenance shall include but not be limited to the following:

1. **Error Correction.** In the event that the system does not meet the operational availability or function in accordance with the manufacturer's stated functionality and performance due to errors in software or any modifications thereto, the Proposer shall correct any such error in the system as identified by the Authority. Errors shall include, but not be limited to, flaws in operations and errors due to flaws in the design and coding of the System. Upon notification of the error by the Authority, or discovery of the error by the Proposer, the Proposer shall dispatch trained personnel to repair, replace and correct all malfunctions required for the System to perform in accordance with the manufacturer's stated functionality and meet the operational availability within one (1) business day from the date of notification. The Proposer shall provide documentation in machine-readable format, if any, relating to the error correction. The corrected software shall be tested by the Proposer in an off-line test environment. The Proposer shall then prepare a test and demonstrate to the Authority's satisfaction that the error has been corrected and submit it to the Authority for review and approval before the corrected software is installed into the production System. Such corrections to the software shall be provided at no additional cost to the Authority. The Proposer's obligations for the performance and completion of such error correction in order to ensure that the equipment meets the operational availability and functions in accordance with the manufacturer's stated functionality and performance within the required timeframe shall be a material and essential requirement. The Proposer guarantees that it will use best efforts to complete the performance of such error correction within the required timeframe.
2. **Software Updates:** The Proposer shall notify the Authority whenever Proposer furnishes upgrades and/or enhancements to the operating system, the application software, and third-party software or third-party software tools used by the System when they become available. The Proposer shall also provide the Authority with an analysis of the potential effects of such upgrades/enhancements on the System. This analysis shall include, at a minimum, the following:
 - (a) Compatibility of the application software with the new operating system or third-party software;
 - (b) Compatibility of the upgrade with the system architecture, server and communications infrastructure;
 - (c) Infrastructure improvements required to support the upgrade;
 - (d) Potential increases or decreases in equipment performance;
 - (e) The availability of product support for the current (older) version of the operating system or third-party software;
 - (f) The cost of the software upgrade, including testing and any other tasks which may be associated with the upgrade.

The RPA will then determine whether or not to order the upgrade. If the RPA selects the upgrade, the Proposer shall perform the upgrade on the System, test the System, and update all applicable documentation, in accordance with the contract terms.

3. Adaptive Changes: In the event changes to the computing or network environment are disruptive to the System or prevent the System from meeting the operational availability or function in accordance with the manufacturer's stated functionality and performance, the proposer shall implement corrections to the software or system configuration to mitigate those changes to the computing environment. Upon notification of the disruption by the RPA, or discovery by the Proposer that the system is not operating in accordance with the manufacturer's stated functionality and performance, the Proposer shall dispatch trained personnel to correct the disruption and restore system operation. The Proposer guarantees that it will use its best efforts to implement required corrections as soon as practical based on the nature of the disruption and criticality of the lost services. The Proposer shall implement all changes, test the system, and update all applicable documentation.

MONITORING APPLICATION TO MAINTAIN SYSTEM PERFORMANCE

The Proposer shall be responsible for routine operation of all software and data used by the application, application files, diagnosing and effecting correction of all problems that impact operation of the applications software and its data, including, but not limited to, the tasks listed herein. The Proposer shall employ system monitoring devices and programs, and diagnostic tools to ensure that all aspects of the application software are operating properly, and the System is meeting all specified performance criteria. This work shall include, but not be limited to the following:

1. Monitor disk usage to verify adequate empty disk space available for program usage and data files (i.e. temporary files, logs.)
2. Monitor logs to verify log files are saved to removable media and log files are purged on a regular basis with the purging of log files that exceed the data retention period.
3. Monitor the database to verify database operation and ensure its performance is within acceptable tolerances and implement corrections to maintain acceptable performance.
4. Monitor the application software, to ensure its performance is within acceptable tolerances and meets the operational availability requirements.

MANAGE CYBERSECURITY VULNERABILITIES

The Proposer shall monitor, evaluate, track, log, and immediately report on all cybersecurity vulnerabilities or other vulnerabilities related to the software used in the equipment. The Proposer shall work with the Authority to address any identified vulnerabilities and mitigate all security/malware/virus alerts.

FIELD TESTING AND QUALITY CONTROL

Prior to implementing any changes on the production system, the Proposer shall test the system in a separate development/test system environment to ensure that the changes are compatible with the application and other installed components. Testing procedures shall test all system functionalities that are described in these general technical specifications as well as any other functionalities performed by the system (e.g. standard functionalities) that are not specifically described within these specifications.

The test procedures document shall be submitted for review and comment forty-five (45) calendar days prior to a required test. Fourteen (14) calendar days after receipt, review comments shall be returned to the Proposer by the Authority. The Proposer shall incorporate the Authority's review comments into the test procedures. This revised document shall be resubmitted for verification that all comments have been incorporated. The approved document shall be bound and termed the Test Procedures Document. One (1) bound copy shall be an original, containing original signatures of the test observers and this copy shall become the Authority's Record copy. No test shall commence until the finalized Test Procedures Document is received.

Testing shall follow the prescribed order of events listed below and include, but not be limited to, the following Proposer activities:

1. Provide an acceptance test plan and procedures for Authority's approval,
2. Install all changes on a separate stand-alone offline test environment,
3. Conduct Proposer pretests, and once testing confirms that the changes are compatible with the application and environment, then conduct Authority-witnessed testing and submit a test report. Once the test report is approved by the Authority, the Proposer shall make arrangements with the Executive Director or assigned Authority personnel to schedule the changes to the production environment.
4. Complete a change management request form and obtain approval from the Executive Director or assigned Authority personnel before implementing the changes in the production environment.
5. Install the changes to the production environment and confirm with the Authority that the system operation is restored.
6. The Proposer shall develop all test procedures for the tests that are listed below:
 - (a) Lane Acceptance Tests (LAT)
 - a. LATs shall be conducted by the Proposer as a demonstration to the Authority or its representatives that the installed equipment complies with the Contract, the

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

Proposer's shop drawings, and to other applicable documentation, such as user manuals.

- b. Upon successful completion of the Proposer's test, and the Authority shall perform the LAT to verify performance. The LAT shall only be observed by the Authority after a fully completed and signed test script verifying successful completion of the Proposer's internal testing is submitted. Signed internal test scripts shall be submitted at least one calendar day prior to the scheduled test with the RPA.
- c. LATs shall be conducted at the RPA for each lane and/or device. The Proposer shall not activate any lane or device for service until its LAT has been successfully completed, and the Authority has notified the Proposer that it is ready to put the equipment in operation.
- d. The Proposer shall provide test procedure documents for LATs in accordance to the submittal guidelines. LAT Test Procedures Documents shall be provided for each lane type or device type and test procedures shall include the following sections:
 - i. Narrative describing the general procedures to be followed
 - ii. Definition of all minor and major deviation types
 - iii. Checklist of all items necessary to conduct the test (e.g. unpaid tickets, exceptions tickets, credit cards, transponders, equipment keys, etc.)
 - iv. Checklist for the components of each lane or device
 - v. Signature page for all LAT participants' signatures
 - vi. Step by step instructions for testing each functionality
 - vii. Tests for all patron processing procedures
 - viii. Tests to ensure that the proper rate structures are being used
 - ix. Tests for verifying the reporting requirements
 - x. Area within each test section to denote "pass" or "fail"
 - xi. Section for listing and describing test deviations
- e. The Proposer shall provide all ancillary items necessary to complete the LATs for testing purposes; supply credit cards of all types for testing; provide all ticket and ticketless media needed for each transaction type; and provide all keys to access equipment housings. In addition, the Proposer shall make available sufficient personnel to perform the LAT in an efficient and timely manner.
- f. The LAT shall be considered successfully completed when all components have passed their respective test procedures and all test documents have been signed by the

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

Authority and Proposer. Minor deviations resulting in the creation of punch list items shall not be considered grounds for failure of the overall LAT. Major deviations found during the LAT shall result in the retest of the lane. The Proposer shall agree to credit the Authority from its total contract value for any travel and/or labor costs incurred by the Authority as a result of retesting a failed lane.

(b) Site Acceptance Test

- a. The site acceptance tests shall test each parking facility's equipment installation as a system, e.g., all entry lanes, exit lanes, communication to the workstations, and servers. The site acceptance test is a pass/fail test that relies upon the operation and status of equipment and system reports of an individual facility. The Authority and the Proposer shall collectively select an "initial startup date" for each site acceptance test. Site acceptance tests shall run for seven (7) days beginning at the initial startup date and continuing for seven (7) consecutive twenty-four (24) -hour periods. Site acceptance tests shall be performed for each individual facility only after all LATs in a parking facility have been successfully completed.
- b. During a site acceptance test only routine maintenance procedures, as defined by the preventative maintenance manual and according to industry standards, shall be permitted. All other maintenance procedures shall be approved in writing by the Authority before they are performed; otherwise, they shall constitute a failure of the site acceptance test and a mandatory restart.
- c. The Authority reserves the right to be present for all maintenance services during the site acceptance tests.
- d. The Proposer shall submit site acceptance test procedures document in accordance with the submittal requirements. Site acceptance test procedures documents are intended to outline procedures for monitoring the overall performance of the System and shall not include test procedures for individual lanes or components. The site acceptance test procedures document shall include:
 - i. Narrative describing the general procedures to be followed
 - ii. Methodology for calculation of downtime for the various components
- e. The performance criteria for successful completion of the site acceptance test shall include:
 - i. Application server
 - ii. Cloud-based data server
 - iii. Credit card authorization system
 - iv. Cloud-based data communication system

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- v. Workstations
 - vi. Entry lane
 - vii. Exit lane
 - viii. Mobile LPR vehicle/system
 - ix. Proximity card access system
 - x. Intercom and camera system
- f. All subsystems listed below shall be operationally available 100% of the time during the seven (7) day test period
- g. If any single component fails more than once during the seven (7) day period, it shall be replaced upon the second failure with a newly manufactured component of the same type.
- h. No component of a given type (e.g., cashier stations, exit stations, barrier gates, entry stations, etc.) shall fail more than two times during the seven (7) day test period for the same reason. Upon the third failure, all components of that type shall be replaced or modified to correct the common deficiency and the test restarted from the beginning.
- i. In addition to the comprehensive reports generated during the site acceptance tests, the Proposer shall provide to the Authority a one (1) page summary report that clearly provides the overall percentage of system downtime and causes of that down time during each test.
- j. The Proposers shall provide to the Authority a corrective action report that provides a detailed description of each failure that occurs during each site acceptance test. The corrective action report shall include the type of failure, why the failure occurred, what was done to remedy the failure, and whether or not the failure resulted in a restart of the site acceptance test. All reports shall be 100% accurate and be reconcilable against each other for the seven (7) day testing period, otherwise the test shall be deemed a failure, problems shall be corrected, and the test shall be restarted from the beginning.

(c) Operational Demonstration Test (ODT)

- a. The ODT shall be comprised of all equipment, systems, and subsystems performing under actual conditions, e.g., patron use, normal activity recording, and reporting procedures. This ODT shall demonstrate, over a period of thirty (30) consecutive calendar days, the successful performance of all aspects of the parking program system.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- b. During the ODT, only routine maintenance procedures, as defined by the preventative maintenance manual and according to industry standards, shall be permitted. All other maintenance procedures shall be approved in writing by the Authority before they are performed; otherwise, they shall constitute a failure of the ODT and a mandatory restart.
- c. The Authority reserves the right to be present for all maintenance during the ODT.
- d. For purposes of the ODT, a subsystem is defined to be any one of the following:
 - i. Cloud-based application servers
 - ii. Cloud-based data servers
 - iii. Credit card authorization system
 - iv. Data communication system
 - v. Workstations
 - vi. Entry lane
 - vii. Exit lane
 - viii. Proximity card access system
 - ix. Intercom and camera system
- e. The ODT shall begin after all facilities have successfully completed their respective site acceptance tests on a date mutually selected and agreed to in writing by the Authority and the Proposer at a time designated by the Authority. The ODT monitors system performance of the entire system operating as a single unit. The Proposer shall submit an ODT test procedures document in accordance with the submittal requirements. ODT test procedures documents are intended to outline procedures for monitoring the overall performance of the parking program and shall not include test procedures for individual lanes or components. The ODT test procedures document shall include:
 - i. Narrative describing the general procedures to be followed
 - ii. Methodology for calculation of downtime for the various components
 - iii. Electronic tracking document to be used during the ODT period for documenting failures and downtime.
- f. The ODT shall continue for thirty (30) consecutive twenty-four (24) hour periods during which all the performance criteria, stated below, shall have been met. If during the thirty (30) day period the system fails to meet any one of the following specified performance criteria, the test shall begin anew on a day agreed upon by

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

the Authority and the Proposer. The Proposer shall agree to credit the Authority from its total contract value for any travel and/or labor costs incurred by the Authority as a result of retesting the system.

- g. The performance criteria for successful completion of the ODT shall include:
 - i. No individual subsystem shall be operationally unavailable for four or more hours cumulative during the thirty (30) day test period.
 - ii. No individual subsystem shall be operationally unavailable for more than two (2) consecutive hours.
 - iii. If any single component fails more than once during the thirty (30) day period for the same reason, it shall be replaced upon the second failure with a newly manufactured component of the same type and the test shall continue. No component of a given type (e.g., cashier station, exit station, barrier gate, entry station, etc.) shall fail more than three (3) times during the thirty (30) day test period for the same reason. Upon the fourth failure, all components of that type shall be replaced to correct the common deficiency, and the test shall be restarted from the beginning.
- h. In addition to the comprehensive reports generated during the ODT, the Proposer shall provide to the Authority a one (1) page summary report that clearly provides the overall percentage of system downtime and causes of that down time.
- i. The Proposer shall provide to the Authority a corrective action report that provides a detailed description of each failure that occurs during the ODT. The corrective action report shall include the type of failure, why the failure occurred, what was done to remedy the failure, and whether or not the failure resulted in a restart of the ODT.
- j. All reports shall be 100% accurate and can be reconciled against one another over the 30-day testing period, otherwise the test shall be deemed a failure, problems shall be corrected, and the test restarted.
- k. A subsystem shall be considered unavailable as long as any major component of the subsystem is not functioning. The major components of an entry lane include, but are not limited to:
 - i. Lane open/closed signs
 - ii. Vehicle detector devices
 - iii. Intercom and camera
 - iv. Barrier gate entry station
 - v. Proximity card reader

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- vi. Data communication
 - vii. Power supply
- l. An inoperative subsystem shall not be deemed unavailable if it has become inoperative because of:
- i. Outage of line power beyond required duration of UPS power backup
 - ii. Malicious damage or vandalism to a component(s) by employees, patrons or others
 - iii. Routine parking operational issues such as ticket jam;
 - iv. Network connectivity issues beyond the parking program
 - v. Failures due to Authority provided equipment issues and/or failures
 - vi. Failures caused by a third-party
 - vii. Act of God
- m. Should a failure occur in the system that is caused by normal hardware failure, it shall be repaired, and the test resumed with downtime accrued. Where the failure causes inadequate test data to be collected or a loss of test data, then the test shall be restarted from a point where it can be successfully completed with data to verify compliance with the Contract and the test procedures document.
- n. If the system “crashes” during a test, then the test shall be stopped. “Crash” is defined as a failure in which the system cannot properly process revenue transactions. The Proposer shall analyze the cause of the system “crash,” document the cause in a system problem report, responsively repair the flaw, and document the repair in a corrective action report.
- o. Where corrective action impacts delivered documentation, the documentation shall be corrected prior to final acceptance. Only after Proposer has repaired the flaw, and the Authority accepts corrective action and the flaw report, can the test be restarted.
- p. Upon formal written approval of the corrective action report by the Authority, testing may continue if a problem has been encountered as long as the Proposer can clearly demonstrate that the failure is associated only with one function of the system, corrective action has been taken to remedy the failure, and the corrective action shall not impact other areas of the system.
- q. Where the system does not perform a function, or incorrectly performs the function, but the system does not crash, testing may continue, as long as the function is corrected, and the following conditions are met:

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- i. The functionality of entry/exit lanes and parking time
 - ii. Works properly according to the Contract
 - iii. The functionality of parking fee calculations and correct collection works according to the Contract
 - iv. No personnel, vehicle or driver safety issues exist
 - v. Transactional archiving operates in accordance with the Contract
 - vi. Failure does not cause loss or contamination of transactional data
 - vii. Reports balance and are 100% accurate
- r. Where the above criteria are not met, the test shall be stopped, and corrective action taken and verified prior to testing restart.
- s. During the test, the continued availability of the system shall be demonstrated. Where a failure occurs that causes data loss, system instability (crash), and/or contamination of the transactional data and the database, the Proposer shall immediately correct the problem. Testing shall continue until a consecutive 30-day period of stable operation is achieved. Stability is defined as the proper functioning of the system with a failure having no impact on the continued system operation or on the integrity of transactional data.

(d) Punch List

Starting with the first week after completing the LAT through final system acceptance, the Proposer shall submit a document on a weekly basis showing the status of all outstanding system issues, regardless of severity, including the plan for resolution and estimated completion date.

(e) Final System Acceptance

Final system acceptance will be submitted by the Authority, in writing to the Proposer, upon successful completion of all LATs, all site Acceptance Tests, the ODT, and upon verification by the Authority of complete resolution of all outstanding items on the punch list.

ELECTRONIC SYSTEM MAINTENANCE TRACKING SYSTEM

1. The Proposer shall utilize a maintenance tracking system, provided by the Proposer, to monitor and record all scheduled, requested, and performed maintenance services. Proposer shall propose the maintenance tracking system to the Authority for review and approval prior to the implementation of such system.

2. The Proposer shall fill in all required fields, completely, for all preventive maintenance and remedial maintenance services scheduled and performed at Authority parking facilities.
3. The Proposer shall submit monthly maintenance reports in an Authority-approved format to designated personnel during the Contract period. All reporting requirements shall be determined at the time of Contract start.

AUDIT AND REPORTING

1. The system shall document parking revenue and activity and generate revenue and activity reports. All reports shall be available online and on demand for Authority staff who have proper password access.
2. The Authority shall establish its virtual midnight for transaction processing, credit card batch close, and report cutoff times. Establishing virtual midnight shall be an Authority responsibility that follows applicable instruction and training of RPA staff by the Proposer.
3. The system shall identify and produce reports that separately reflect public parking and employee parking.
4. Public parking data shall be separated by category, including but not limited to: monthly/contract parking, special event, hotel valet, and hourly for reporting purposes.
5. An electronic event journal that can be accessed by a supervisor from a workstation during a cashier shift and following shift, close to perform cashier closeout shall be provided.
6. The transactional stream of data shall be compiled in an ODBC (Open Database Connectivity) compliant database. The RPA shall prepare custom reports using this data including exporting data to Crystal Reports, and Microsoft Excel, at a minimum, via a comma-separated-value file format or as a PDF file.
7. All reports shall query, filter, and sort transactions by date/time, location, ticket ID, vehicle license plate number, field device unique identifier, parking fee, transaction type, exception, validation type, or cashier, at a minimum.
8. A report shall be provided to capture and separately record all exception transactions that could not be processed 100% and automatically by the system (swapped, unreadable, lost, foreign, mutilated, used, disputed fee, cancelled, credit card transactions processed in an off-line mode, etc.)
9. Provide the Proposer's standard reports including report descriptions, selectable data fields, and report layouts for all standard reports. Proposer to submit standard reports for Authority review and approval.
10. Proposer shall provide a definitions key for every report including a narrative description of what data each column and row represents and calculation formulas that define how all figures are obtained.

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

11. The system shall support the scheduling of reports to automatically run at a desired time or on a desired schedule. Users shall be able to designate e-mail recipients for these reports. Only users with appropriate privileges shall be able to schedule reports or view scheduled reports. The details of scheduled reports, including e-mail recipient, shall be editable after scheduling.
12. The system shall utilize a report writer, such as Crystal Reports, for processing standard and ad hoc reports. The license to the report writer shall permit both running standard reports and creating custom reports. The system shall support the import of Crystal Reports template files (.rpt files). The system shall be able to execute these reports after they have been imported.
13. The Proposer shall coordinate with the RPA as required during the system design to address the specific reporting needs of the Authority. The system shall allow grouping of reports by category so as to simplify choosing a report from a list. At a minimum, reports provided shall include:

(a) Shift Reports

- i. Cashier shift report
- ii. Express exit station shift report
- iii. Daily shift report
- iv. Weekly shift report
- v. Monthly shift report
- vi. Yearly shift report
- vii. Cashier detail report – w/ date range

(b) Monthly Reports

- i. Monthly ISF summary
- ii. Monthly lost ticket summary
- iii. Monthly lane load factors report
- iv. Monthly exit lane summary
- v. Monthly revenue summary
- vi. Monthly credit card summary
- vii. Monthly cash and credit card transaction summary
- viii. Monthly paid ISF summary

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- ix. Monthly peak occupancy report
- x. Monthly average occupancy report
- xi. Monthly year to date transaction and revenue summary

(c) Daily Reports

- i. Daily shift summary of (date)
- ii. Daily credit card summary of (date)
- iii. Daily revenue summary
- iv. Daily revenue summary (relating to facility)
- v. Daily validations by facility
- vi. Daily validations by type
- vii. Daily validations by department
- viii. Daily validations by amount
- ix. Daily validations by cashier/issuer
- x. Daily validations summary

(d) Validation Detail Report that provides a chronological listing by exit time of each validation transaction (including reservation validations not linked to an event) for each validation account for a selectable time period. The report should provide a sum total for each validation code.

(e) Accounts receivable and write-off reports that indicate, by user-defined receivable type, the following: total dollars collected, total citations outstanding (unpaid or partially paid), and total citations disposed by disposition type over a user-defined period (e.g. monthly, annually, etc.), and insufficient funds.

(f) Credit Card Reports

- i. Deliver detailed credit card report that displays credit card revenue generated by card type, cashier station, cashier, and date/time. The report shall include the total sum and chronological listing of each credit card transaction by card type. Credit card numbers shall be masked to display only the last four (4) digits.
- ii. Credit card summary report that summarizes credit card transaction totals for each day by credit card type for the time period selected (usually by month).

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- iii. A listing of credit card shift summary and occupancy counts by event at which temporary permits are sold directly from handheld devices.
- iv. Credit card reversal/refund report that summarizes credit card reversals and refunds, and includes information to identify general ledger accounts, clerk, receipts, and override information.
- v. A listing of expiring credit card profiles for recurring credit card payments

(g) Access Card Reports

- i. Active access card listing
- ii. Access cards blocking listing
- iii. Access cards delete listing
- iv. Access card expired listing
- v. Daily access card granted entry listing - reports that allow queries over any length of time (hours or days)

(h) Occupancy Reports (including the peak occupancy over a given timeframe)

- i. Length of stay
- ii. Revenue statistics
- iii. Summary report turnover – movement
- iv. Summary report events
- v. Event journal

(i) Gate Open Report: for manual gate raises. Generate a report noting if a gate (entry or exit) was manually opened and by whom (or who was logged on at the time). Also noting if the gate was opened from a terminal or at the device.

(j) Lost Ticket Transactions Tracking Report (available in daily, monthly, and yearly containing the sortable/ filterable columns below)

- a. Summary Reports Exit date and time
- b. Transaction #
- c. Lost ticket amount
- d. Last name (non-case sensitive)

READING PARKING AUTHORITY

RFP No: 2018-001 for Off-Street Parking Access and Revenue Control System (PARCS)

- e. First name (non-case sensitive)
 - f. Middle initial (non-case sensitive)
 - g. Address
 - h. Phone #
 - i. LPN State
 - j. LPN
 - k. Cashier (non-case sensitive)
 - l. Supervisor approval (non-case sensitive)
 - m. Reports (a report showing the accrual amount collected in a set period).
 - i. Cashier report
 - ii. Pay station report
 - iii. Daily report (0000 – 2,359)
 - iv. Monthly report (first day to last)
 - v. Fiscal Yearly report (July 1 – June 30)
 - vi. Individual access card usage report for at least a six (6) month period
 - vii. Maintenance report specific to time and device
- (k) Cashier All Transactions
- a. Non-specific
 - b. Specific
 - c. Specific with Entry Time
 - d. Cashier Cancelled Transactions
 - e. All Cashiers
 - f. Specific Cashier
 - i. Credit card in and out
 - ii. By date with dollar amount

iii. Day, month, and year

(l) Employee and Company Access Card

- a. Company activity
- b. Card activity
- c. Customer activity
- d. Activity by date/time
- e. Access card revenue detail
- f. Access card revenue summary
- g. Monthly activity detail
- h. Monthly activity summary
- i. Instantaneous (access card) presence check
- j. Specific areas in the garage (Nest, Terminal Direct and General)
- k. All transactions for a specific device
- l. Cashier Lost and Unreadable details
 - i. 2-day
 - ii. Most recent 30 days
 - iii. Ticket back details
 - iv. Cancelled
- m. Cashier Shift Summary
- n. Credit card transactions for cashiers
- o. Free of charge ticket for cashiers
- p. Insufficient Funds
- q. Paid transactions for cashiers
- r. Ticket by rate
 - i. Most recent day

- ii. Most recent 5 days, 10 days, 15 days
 - iii. Choose month
 - iv. For prior month
- s. The proposer shall provide the Employee Parking Lot reports below in an approved format.
 - i. Real-time inventory report
 - ii. Duration of stay report
 - iii. Lot activity report
 - iv. Lot anti-pass back violation report
 - v. Lot revenue report
 - vi. Online payment details
 - vii. Online payment summary

QUALITY ASSURANCE

1. All parking program components and their installation shall comply with all laws, ordinances, codes, rules, and regulations of public authorities having jurisdiction over this part of the work. It shall be the responsibility of the Proposer 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. It shall be the Proposer's responsibility to obtain any and all permits that are required to complete this work.
2. The parking program shall be an open-architecture system where all interfaces (hardware and software) conform to national and International Organization for Standardization (ISO) standards.
3. All materials and equipment shall be listed, labeled or certified by a nationally recognized testing laboratory to meet Underwriters Laboratories, Inc. (UL), standards where test standards have been established. Equipment and materials which are not covered by UL Standards will be accepted provided equipment and material is listed, labeled, certified or otherwise determined to meet safety requirements of a nationally recognized testing laboratory. 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 industry standards, such as NEMA, or ANSI. Evidence of compliance shall include certified test reports and definitive shop drawings.

4. Housings of the components exposed to weather shall meet NEMA 4 standards or better to be moisture-proof and shall provide sufficient protection so that the components continue to function without moisture, dust, heat, or extreme cold related interruption.
5. The Proposer's application software shall conform to PCI DSS standards and be PA DSS certified. The Proposer shall submit the most recent PA DSS Report of Validation as part of their Proposal.

DELIVERY AND STORAGE

1. Proposer shall be responsible for insuring all shipped items. Any items damaged during shipping shall be replaced and shipped to the RPA, by expedited means if requested, at no additional cost to the Authority.
2. Proposer shall provide the staging and storage area for the equipment. The Authority shall provide the Proposer with a designated storage/staging area for equipment that will be installed within the next week. The Proposer shall propose in the Proposal the square footage of area required, and what is planned to be stored in the area. The RPA shall determine the exact location after contract award. It is the Proposer's responsibility to protect the equipment from theft and damage until final acceptance, including installation of fencing, locks, and any other security provisions. Should the stored equipment be stolen or damaged prior to final acceptance, the Proposer shall replace the equipment at no additional cost to the Authority.
3. After equipment is installed, costs (time and material) for repair or parts replacement, components, etc., damaged or rendered unserviceable due to apparent and provable misuse, abuse, vandalism or negligence by RPA employees or the using public are excluded as a cost incurred by the Proposer. Also excluded from the costs incurred by Proposer are damages due to Acts of God that occur after installation.

ONLINE CUSTOMER PORTAL

The desired PARCS solution should include a secure self-registration portal for parking customers, including monthly accounts, special events and hotel valet operations. The system should include but is not limited to the following:

1. Online sales and reservations, including registration, purchase and delivery of parking products via secure Web portals
2. Allow customers to actively manage their accounts by allowing them to review transaction history, pay invoices, and modify their contact information, etc.
3. Automated paperless invoicing, receipts, reporting and data archiving
4. Automatic notification, promotions, and communications via email
5. Fully integrated account management

6. Prepay for special event parking, etc.

SPARE PARTS INVENTORY

1. Proposers shall provide a recommended inventory of spare parts and equipment as part and included in the cost, of the initial installation. The purpose of such inventory is to provide the capability of repairing a device by replacing the entire device or the failing component from the spare parts inventory to avoid any delay in making repairs for shipment of replacement items.
2. The cost of each item in the spare parts inventory shall be itemized except that fully assembled components such as read head assemblies shall be considered and priced as single items.
3. A list of the spare parts inventory shall be provided as part of the Proposal submission for supplying the system and the parts shall be the property of the RPA.
4. The Authority may elect to store the spare parts inventory on Authority property in a location accessible to personnel designated by the Proposer to perform warranty service.

THIRD-PARTY SERVICES

1. List names of any technology companies that your organization is partnered with, the nature of your relationship, and the value that it brings to your proposed solution and ultimately the RPA.
2. Describe your overall approach to developing, testing, implementing, and upgrading system interfaces to third-party systems.
3. Detail any limitations/issues regarding the willingness or ability to interface/integrate the proposed system with other third-party automated systems.
4. Please indicate if your firm offers an interface engine product and/or describe your experience with third-party interface engine products and the proposed system.
5. If customization is required, describe how this will affect the cost, timeline for development, and support after implementation of the interface.
6. The RPA shall negotiate contracts directly with any third party service, when the Authority is required to sign a contract directly with the third-party.

APPENDIX

Photos of Garages and Lot(s)

Poplar and Walnut Garage



2nd and Washington Garage – View 2



4th and Cherry Garage



4th and Cherry Garage – view 2



7th and Washington Lot



7th and Washington Lot – View 2



Chiarelli Plaza Garage



Reed and Court Garage



Convention Center Garage



Convention Center Garage – other views



South Penn Garage



South Penn Garage – other views



Front and Washington Garage



Front and Washington Garage – view 2

