# Request for Proposal

For

# Garrahy Courthouse Garage
# Parking and Revenue Control System

## Rhode Island Convention Center

1 Sabin St, Providence, RI 02903

Issued: September 2019

| Important Dates | |
|---|---|
| RFP Release | September 6, 2019 |
| Pre-bid Conference / Walkthrough | September 19, 2019 at 10 AM |
| Deadline for submitting questions | September 24, 2019 at 10 AM |
| Proposal Due Date | October 11, 2019 at 10 AM |


Prepared by:

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# SECTION 111200 – PARKING CONTROL EQUIPMENT

## PART 1 - GENERAL

### 1.1 SCOPE

A. The Rhode Island Convention Center (RICC) is seeking proposals from interested vendors to furnish and install a new Parking and Revenue Control System (PARCS) to serve the new Garrahy Courthouse Parking Garage at 75 Clifford Street, Providence, RI 02903.

B. Vendors must include all necessary civil, electrical, mechanical, and administrative services, and provide all equipment and services related to the design, installation, setup, testing, and maintenance of a parking and revenue control system.

C. This includes, but is not limited to, loops or other induction equipment, electrical wiring and installation of any necessary parking equipment components to all the Parking Facilities and to the Parking Office, servers, computers, equipment movement and installation, conduit (if any), concrete work, wire terminations, training, testing, programming, set-up services, and ongoing support service.

### 1.2 PROPOSAL DUE DATE

A. SEALED PROPOSALS shall be submitted no later than 10:00 AM, E.S.T. on Friday, October 11, 2019, at which time they will be opened and acknowledged. Responses received after that time and date will be returned unopened. The Respondent shall assume full responsibility for timely delivery at the location designated for the receipt of Responses.

B. Four (4) printed proposals plus one (1) electronic version (on USB Memory Stick) shall be delivered to the attention of:

Howard Allen
Complex Purchasing Manager
Rhode Island Convention Center
1 Sabin Street
Providence, RI 02903

C. Please label submissions with respondent's name and address, the bid due date, and title: "Garrahy Garage PARCS

### 1.3 PRE-BID WALKTHROUGH

A. There will be a **MANDATORY** pre-proposal conference at the Garrahy Garage, 75 Clifford Street, Providence, RI 02903 on September 19, at 10:00 AM. A briefing will take place, followed by a site tour of existing conditions with Q+A. Note that the Garrahy Garage is still under construction, so please bring a hard hat.

B. Respondents are asked to pre-register by sending the names and contact info of any personnel planning to attend the pre bid to Broad Reach, via e-mail at SPECS@BRNX.COM. You will receive a response with the exact location of the pre-bid and any updated documentation.

## 1.4 IMPORTANT DATES

| | |
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## 1.5 DEFINITIONS

A. Request for Proposal (RFP) Consists of this RFP, the Invitation to Bid, the Vendor Qualifications form, as well as any addenda that may be released prior to the bid submission deadline.

B. A Response is a complete and properly signed proposal to do the Work as stipulated therein, submitted in accordance with the RFP.

C. The terms respondent, vendor, bidder, contractor and offeror used herein all refer to the vendor submitting a response to this RFP. The term Customer refers to the party that is seeking bids for services under this RFP. The terms bid and response are synonymous.

D. Financial Terms means the amount of compensation to be received by Vendor as evidenced by the Contract Documents, during the contract time.

E. Work is the services to be performed by the successful Respondent as outlined in the Scope of Work.

F. The Rhode Island Convention Center Authority (RICCA) is the governing office that oversees the management of the Rhode Island Convention Center.

G. The Garrahy Garage and the Rhode Island Convention Center are the locations where the work is to be performed.

H. SMG is the business firm that manages the Garrahy Garage, Rhode Island Convention Center, and Dunkin' Donuts Center for the Rhode Island Convention Center Authority.

I. Event is the period of time during which the Center is occupied by licensees.

## 1.6 TERMS OF USE / CONFIDENTIALITY

A. This document is to be used only by the recipient to assist in responding to the project for which it is intended.

B. Any other use or reproduction, in whole or in part, is prohibited without the written permission of the author.

C. Documents and information received by the Contractor(s) are confidential and shall be treated as such by the Contractor(s). Contractor(s) shall hold in confidence and protect the documents and information contained therein, to prevent any unauthorized use and dissemination to others.

D. Documents and information received by the Contractor(s) shall only be distributed and discussed with persons directly involved in the preparation of the Contractor(s) response to this RFP.

## 1.7 PROPOSAL COSTS

A. All costs associated with developing or submitting a response to this solicitation, or to provide oral or written clarification of its content, shall be borne by the offeror. The Customer assumes no responsibility for these costs.

## 1.8 MODIFICATIONS TO RFP

A. The Customer reserves the right to revise, modify, supplement, or withdraw this RFP at any time. In the event that it becomes necessary or desirable to revise, modify, supplement, or withdraw any part or all of this RFP, an addendum to this RFP or other notification will be issued.

## 1.9 SUBMISSION MATERIALS

A. All materials submitted regarding this RFP will become the property of the Customer and will only be returned to the vendor at the Customer's option. Responses may be reviewed by any person or persons at the discretion of the Customer. The Customer reserves the right to use any RFP ideas or options presented in reply to this request. Disqualification of a vendor or non-acceptance of the RFP does not eliminate this right.

## 1.10 INSURANCE REQUIREMENTS

A. Vendor is required to maintain insurance as described herein for the duration of the project.

## 1.11 SCHEDULES

A. To assure adequate planning and execution so that the work is completed within the number of calendar days allowed in the Contract, vendor will prepare and maintain schedules and reports. Vendor will graphically show the order and interdependence of all activities necessary to complete the work, including responsible party, and the sequence in which each activity is to be accomplished. Submit this schedule / work plan as part of vendor response.

B. Further scheduling and reporting requirements (for the successful vendor only) are detailed under implementation.

## 1.12 PROPOSAL VALIDITY

A. Responses are considered to be irrevocable for a period of not less than 90 days following the opening date, and may not be withdrawn, except with the express written permission of the purchasing agent of the Customer.

B. All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

1.13 RESPONSE FORMAT

Responses should be organized in the following manner:

A. Section 1: RFP Response

1. Vendor will follow the format set forth by this RFP, responding to each paragraph individually. Information should be provided under its appropriate paragraph as requested.

2. For those paragraphs that do not require extensive response, vendor should respond with, for example, “Acknowledged and will comply”.

B. Section II: Cost Information

1. In addition to the paragraph-by-paragraph response, the vendor shall include, as a distinct section in vendor response labeled “Cost Information”, the detail of the various components of the system(s) proposed with their associated costs. Include subtotals where appropriate, and a total cost. Add alternates, where requested, should be itemized and totaled separately. Cost information should be itemized as fully as possible, as this will assist Customer in comparing the different vendor solutions.

2. Be sure to include all costs, software license fees, support costs, and any fees, such as permits, certification fees, one time install, or any other administrative or governmental surcharges or fees.

C. Section III: Company Information:
Include the following:

1. Company History/Qualification. Provide a detailed history of Respondent and a statement of qualifications including a description of comparable services provided for comparable projects including dates.

2. Financial Qualifications. Provide evidence that Respondent has the financial ability to perform the Work. Respondent must provide their last two (2) financial statements. In the case of a subsidiary, statements must be on the operating entity. No statement of the parent or holding company is acceptable.

3. If the Respondent is a Minority Business Enterprise certified by the Rhode Island Department of Economic Development, the Response should so indicate.

4. References and qualifications: Complete the Bidder Qualification Forms (attached in Appendix A).

D. Section 1V: Misc.: Additional information such as marketing and sales brochures are welcomed, but are in no way a substitute for the information format requested in the RFP.

Non-conformance to the format requested may result in rejection of vendor's proposal.

1.14 RESPONSE ATTACHMENTS

A. If there is a general purchase and sale agreement or other form contract that Contractor will expect Customer to execute, this should be included with the proposal. Requests for executing form contracts after award may be refused.

B. Each copy of the Response shall include the legal name of the Respondent and a statement identifying the Respondent as a sole proprietor, partnership, corporation or other legal entity as appropriate. Each copy shall be signed by the person or persons legally authorized to bind the Respondent to a contract. A response by a corporation shall further give the state of incorporation and whether the Respondent is qualified to do business in Rhode Island as a foreign corporation. A Response submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Respondent.

1.15 LIST OF ABBREVIATIONS:

A. APS Automatic Pay Station

B. ACS Access Control System

C. FMS Facility Management System

D. PCS Parking Control System

E. RCS Revenue Control System

F. CR Card Reader

G. TD Ticket Dispenser

1.16 PROPOSAL DOCUMENTS

A. One complete RFP may be obtained by interested parties, at no cost, from Customer.

B. Additional copies of the RFP may be secured at a cost of $5.00 to the Respondent upon request and payment to the issuing office designated in the Advertisement.

In making copies of the RFP available on the above terms, the Customer does so only for the purpose of obtaining Responses on the Work and does not confer a license or grant permission for any other use of the RFP.

1.17 PROCEDURES

A. FORM AND STYLE OF RESPONSES

1.18 CLARIFICATION

A. Each Respondent shall carefully examine all RFP documents and related materials, addenda or other revisions, to thoroughly familiarize themselves with all requirements prior to submitting a

Proposal. Should a Respondent find discrepancies or ambiguities in, or omissions from the Proposal documents, or should the Respondent be in doubt as to their meaning, Respondent shall at once and in any event, not later than the deadline for submitting questions (see Invitation to Bid), submit to SMG a written request for interpretation or correction thereof.

B. All questions or clarifications must be submitted via email to Howard Allen, hallen@smgricc.com, or be delivered in writing to the submission address listed on the Invitation to Bid.

C. Oral inquiries will be accepted only for clarification of administrative questions regarding this RFP.

D. No inquiries will be accepted after the deadline.

E. Any interpretation or correction of the RFP will be made by written addenda to all Respondents. No allowance will be made after Proposals are received for oversight, omission, error, or mistake by the Respondent or SMG. Addenda so issued will become part of the Proposal Documents and receipt thereof by the Respondent shall be acknowledged in the Proposal.

## 1.19 MODIFICATION OR WITHDRAWAL OF RESPONSE

A. A Response may not be modified, withdrawn or cancelled by the Respondent during the time period following the date designated for the opening of the Responses, and each Respondent so agrees in submitting a Response.

B. Prior to the time and date designated for receipt of Responses, a Response submitted may be modified or withdrawn by notice of the party receiving Responses at the place designated for receipt of Responses. Such notice shall be in writing over the signature of the Respondent. A change shall be so worded as not to reveal the amount of the original Response.

C. Withdrawn Responses may be resubmitted up to the date and time designated for the receipt of Responses provided that they are then fully in conformance with these Instructions to Respondents.

## 1.20 DUE DILIGENCE

A. Prior to submitting a Proposal, each Respondent shall make all investigations and examinations necessary to ascertain conditions and requirements affecting operation of the proposed services. Failure to make such investigation and examinations shall not relieve the successful Respondent of the obligation to comply, in every detail, with all provisions and requirements, nor shall it be a basis for any claim whatsoever for alteration in any provision required by the Contract.

## 1.21 CONDITIONS AND LIMITATIONS

A. The Proposals and any information made a part of the Proposals will become part of SMG and RICCA's official files without any obligation on SMG and RICCA's part to return them to the individual Respondent(s).

B. This RFP and the selected Respondent(s) Proposal may, by reference, become a part of any formal Contract between SMG and Respondent resulting from this solicitation.

C. Respondent(s) shall not offer any guarantees, favors, or anything of monetary value to any official or employee of SMG, RICCA or the State of Rhode Island for the purposes of influencing consideration of a proposal.

1.22 CONSIDERATION OF RESPONSES

A. OPENING OF RESPONSES

1. The properly identified Responses received on time will be opened publicly and acknowledged.

2. To be considered for the award, a Respondent must be experienced and regularly in the business of providing the Scope of Work required by the RFP, and must have a business phone and be available for consultation.

B. REJECTION OF RESPONSES

1. SMG shall have the right to reject any or all Responses, reject a Response not accompanied by the data required by the RFP, or reject a Response which is in any way incomplete or irregular.

C. ACCEPTANCE OF A RESPONSE

1. It is the intent of SMG to award a Contract to the qualified and responsive Respondent submitting the response which is in the best financial interest of SMG and RICCA, provided the Response has been submitted in accordance with the requirements of the RFP. SMG shall have the right to accept the Response which in SMG's judgment, is in the best interests of SMG and RICCA.

2. Following the evaluation of written proposals, Respondent(s) may be requested to offer oral presentation to SMG. Failure to comply with such a request will disqualify Respondent from consideration.

1.23 FORM OF AGREEMENT BETWEEN SMG AND RESPONDENT

A. The successful Respondent will be required to enter into a written Contract with SMG.

B. MINORITY BUSINESS ENTERPRISE

a. SMG may, after considering the financial impact to SMG and RICCA, prior to making a final determination of award, apply special consideration to the offer of Minority Business Enterprises in accordance with the Rhode Island General Laws and the applicable regulations.

b. A Minority Business Enterprise shall mean a small business concern owned and controlled by one or more minorities or women and is certified by the Rhode Island Department of Economic Development to meet the definition established by Rhode Island law.

1.24 EVALUATION CRITERIA

A. The successful Respondent shall be determined by the following criteria:

1. Respondents must demonstrate the ability to provide the Work specified by furnishing information regarding its expertise, experience, financial soundness and integrity.

2. Respondents and personnel must demonstrate an understanding of the Work required and be able to dedicate sufficient time to be able to complete the Work required.

3. Respondents must demonstrate that Jobs of similar scope and/or magnitude have been successfully maintained.

4. Responses will be evaluated on the basis of the above and the relative merits of the proposal, in addition to price.

5. SMG reserves the right to award the Contract on the basis of the initial Response.

1.25 GENERAL

A. USE OF FACILITIES

1. The Vendor's employees must check-in and exit the Center at the designated security door only.

2. The Vendor's truck and other vehicles must have the company name or logo permanently attached and must be parked in authorized areas or spaces only.

3. The Vendor shall take all precautions necessary and shall bear the sole responsibility for the safety of the Work, and the safety and adequacy of the methods and means it employs in performing Work. Vendor, while on the Center's grounds must also observe any safety requirements imposed by SMG.

B. LENGTH OF CONTRACT

1. The Contract under which these privileges shall be granted will be for a term of up to three (3) years.

2. Vendor shall understand that legislation passed by the State of Rhode Island, during the Contract Term, to change or regulate prices may cause the parties hereto to re-negotiate or adapt the Agreement to the laws as they are written.

3. Customer shall reserve the right to terminate this contract at any time on thirty (30) days' notice, without penalty.

C. FAILURE TO COMPLETE WORK ON TIME

1. Delays in completion of Work will cause delay in use by the owner and will cause various losses to SMG, including revenue.

2. Respondents agree to pay an amount, agreed upon by both parties, for each and every calendar day they are in default in completing the Work.

D. BONDING

1. Vendor will be required to execute a Performance and Payment Bond, in a form acceptable to RICCA/SMG, in the amount of One Hundred Thousand Dollars ($100,000.00) with Corporate Surety to secure the performance by the Vendor of all terms of the Contract. The Performance and Payment Bond shall name SMG and RICCA as beneficiaries and be in place upon the execution of the Contract.

E. INSURANCE

1. During the contract term, the Vendor will maintain, at its sole cost and expense, policies written by an insurance company or companies approved by SMG, authorized and licensed to do business in the State of Rhode Island and rated not less than "A-" by the most current Best's Manual. All such insurance coverage, with the exception of Workers' Compensation, shall name SMG, the Center, RICCA, the State of Rhode Island and their employees, agents, officers and directors as additional insureds on a primary and non- contributing basis there under and a waiver of subrogation in favor of all additional insureds shall apply to all such coverage. Evidence of such coverage being in place will be promptly delivered to SMG prior to the Commencement of the Term. All such coverage shall be endorsed to indicate that coverage will not be materially changed or cancelled without at least thirty (30) days,' prior written notice to SMG, such prior notice being mandatory. The Vendor will provide SMG with evidence of the renewal of all coverage required for the Contract. Such coverage shall include the following:

   a. Comprehensive General Liability coverage in the amount of $2,000,000 in the aggregate and $1,000,000.00 each occurrence. This coverage must be written on an occurrence form, claims made policies will be unacceptable. The Comprehensive Liability insurance shall cover the vendor, SMG, the Center, RICCA, the State of Rhode Island and their respective employees, agents, officers and directors from and against any claim arising out of personal injury and/or property damage as a result of the operations of the Vendor or its failure to comply with the terms and provisions of the Contract. Such policy or policies for the insurance shall include coverage for claims of any persons as a result of incidents directly or indirectly related to the employment of such persons by the Vendor or by any other persons. This coverage shall include blanket contractual insurance and such coverage shall make express reference to the indemnification provisions set forth in the Contract.

   b. Worker's Compensation Coverage, as statutorily required by the State of Rhode Island, for all employees of the Vendor. Employer's Liability coverage on the Workers' Compensation policy shall be written in the minimal amount of $1,000,000.00.

   c. Excess Liability Coverage in the amount of $5,000,000.00 shall be in the form of an Umbrella policy rather than a following form excess policy. This policy or policies shall be specifically endorsed to be excess for the required Comprehensive General Liability Coverage, the Employees' Liability Coverage on the Workers' Compensation policy, and the Comprehensive Automobile policy.

d. Comprehensive Automobile Liability Coverage, in an amount not less than $1,000,000.00, shall be maintained. Such coverage will include all owned, non-owned, leased and/or hired motor vehicles, which may be used by the Vendor in connection with the services required under this Contract.

e. Insurance against Loss and/or Damage to fixtures, furnishings, equipment and other personal and business property of the Vendor and the Center upon the premises by fire or other such casualty as may be generally included in the usual form of extended coverage in an amount equal to the replacement costs of such property. Such insurance shall provide coverage for the personal property of others in the care, custody and control of the Vendor that is used by the Vendor for the Work.

F. INDEMNIFICATION

1. The Vendor hereby agrees to indemnify and keep indemnified, defend, hold and save harmless RICCA, SMG, the State of Rhode Island and their respective agents, representatives, consultants, directors, officers and employees from and against any and all actions, causes of action, claims, demands, liabilities, losses, penalties, judgments, awards, costs, damages or expenses of whatsoever kind and nature, including reasonable counsel or attorneys' fees and court costs, which RICCA, SMG, the State of Rhode Island and their respective agents, representatives, consultants, directors, officers and employees shall or may at any time sustain or incur, directly or indirectly, by reason of (a) any breach by the Vendor of any representation, warranty, covenant or agreement in the Contract, (b) any failure by the Vendor to perform its obligations under the Contract, (c) failure by the Vendor or its agents, employees, suppliers or subcontractors to observe and comply with all applicable federal, state and local laws, ordinances, rules and regulations, or (d) arising out of or resulting from the Work, provided that any such claim, damage, loss or expense with respect to the Work is (i) attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property including the loss of use resulting there from, and (ii) caused in whole or in part by any negligent act or omission of the Vendor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. By virtue of this indemnification clause, the Vendor does not waive any rights or defenses it may have with respect to any such claims, demands and causes of action, including the right of contribution.

2. In any and all claims against SMG, the State of Rhode Island, RICCA and their respective agents, representatives, consultants, directors, officers or employees by any employee of the Vendor any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 7.7.1 shall not be limited in any way by any limitation on the amount of the type of damages, compensation or benefits payable by or for the Vendor or any subcontractor, the workers' or workmen's compensation acts, disability benefits acts or other employee benefit acts.

1.26 LABOR

A. Vendor shall provide, at its own expense, qualified or licensed labor in the applicable trades.

B. Employees shall be uniformly dressed, clean and neat in appearance. All employees must display identification prominently while on the Customer premises.

C. All employees shall be qualified and properly trained in the handling and use of all Equipment used in and around the Center.

D. RICCA has the right of approval of any and all Vendor employees.

E. SMG has the right to assign and adjust all work hours and schedules not to impact any Events at the Center.

F. Equal Employment Opportunity Compliance – The Vendor is required to demonstrate the same commitment to equal opportunity as prevails under federal contracts controlled by Federal Executive Orders 11246, 11625 and 11375. Affirmative action plans shall be submitted by the Vendor to the RICCA, if required. Vendor's failure to abide by the rules, regulations, contract terms and compliance reporting provisions as established shall be grounds for forfeiture and penalties.

G. Prevailing Wage Requirement – In accordance with Title 37 Chapter 13 of the General Laws of Rhode Island, payment of the prevailing rate of per diem wages and general prevailing rate for regular, overtime and other working conditions existing in the locality for each craft, mechanic, teamster, or type of workmen needed to execute this Work is a requirement for both contractors and subcontractors for all public works. Vendor shall submit a true copy of completed payroll records for any work done relating to the Contract to SMG on a weekly basis.

H. Drug-Free Workplace Requirement – In Accordance with Executive Order No. 91- 14, Vendor shall abide by Rhode Island's drug-free workplace policy and the Vendor shall so attest by signing a certificate of compliance.

## 1.27 PERMITS, LICENSES AND LAWS

A. Vendor shall be required to provide and maintain any permits and licenses required by law at its own expense. A set of blueprints will be provided if needed.

B. Vendor shall at all times observe and comply with all applicable federal, state and local laws, ordinances, rules and regulations, and shall indemnify, save and hold harmless, the RICCA and SMG and all of their officers, agents and employees against all claims or liability arising from or in connection with the violation of any such law, ordinance, rule or regulation, whether such violation is caused by Vendor, or its agents, employees, suppliers, or subcontractors.

## 1.28 STANDARDS OF DESIGN AND WORKMANSHIP

A. All aspects of the maintenance work shall be designed, tested, implemented, and documented in accordance with recognized professional and industry practices. All work shall be performed by qualified technicians.

## 1.29 INSTALLATION

A. The contractor shall furnish all equipment, accessories, and material required for the proper installation and operation of a comprehensive communications system in compliance with these

specifications and applicable contract drawings. Any material and/or equipment necessary for the proper operation of the system, which is not specified or described herein, shall be deemed part of this specification, unless noted as provided by others.

1.30 PROPRIETARY INFORMATION

A. Customer shall retain ownership of all proprietary information, and disclosure of information does not convey any right or license to use the information other than for the stated purpose.

1.31 VENDOR ACTIVITIES

A. Vendor's activities are not to be disruptive of normal business activity–including excessive construction noises– and must not compromise the safety, security or self-respect of any of the Customer's employees or visitors in any way. The Customer reserves the right to insist that any individual under the direction of the vendor may, without a statement of cause, be taken off this project. The vendor will comply without compromising schedules or other contract terms.

1.32 DUE CARE

A. In delivering, installing and removing equipment, due care shall be exercised to avoid damage to, or disfigurement of, buildings, equipment, driveways or other property. Any blemish made by Vendor to the physical plant or property of Customer is to be restored by the Vendor. The successful vendor shall be required to complete restorations at its expense for any damage caused by it or by any of the subcontractors.

1.33 RUBBISH

A. The Contractor shall maintain the premises free from rubbish caused by his work, employees, or sub-contractors, by removing it as specified in the bid or when directed by the Customer. At the completion of his work, he must remove all surplus materials and rubbish from the premises to the satisfaction of the Customer.

1.34 OBSOLETE EQUIPMENT AND CABLE

A. Contractor shall demolish, remove from the job site, and dispose of all equipment and cable that is being replaced and/or made obsolete by the work under this project. Contractor shall provide Customer a list of all equipment and materials to be removed, and Customer must approve this list prior to demolition or removal.

B. Equipment slated for disposal must first be cleared of customer specific information and data, and memory / storage devices wiped or destroyed.

1.35 PERFORMANCE REQUIREMENTS

A. All systems and equipment shall be certified to meet the following standards:

1. ISO 9000

2. System shall be RoHS (Restriction of Hazardous Substances) compliant and meet proposed amendments to the reduction of toxic substances in manufacturing as stated in the Environmental Design of Electrical Equipment Act (EDEE)

3. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency and marked for intended location and application

4. Installation shall comply with NECA 1-2010 “Standard Practice of Good Workmanship in Electrical Construction”

5. Installation shall comply with NEC/NFPA 70E “Standard for Electrical Safety in the Workplace”

6. Installation shall comply with FCC CFR 47 Part 15 Class A "Telecommunications, Radio Frequency, Digital Device Emission”

7. Installation shall comply with federal, state, and local codes and Authority Having Jurisdiction (AHJ)

1.36 ACTION SUBMITTALS

A. Product Data: Provide details and technical specifications for each product indicated. Include physical dimensions, features, performance, electrical characteristics, ratings, software versions, and operating system details.

B. Shop Drawings: Include system line diagrams, equipment locations, installation details, and system integration plans.

1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

2. Functional Block Diagram: Show single-line interconnections between components for signal transmission and control. Show cable types, quantities, and sizes.

3. Plans and Elevations: Dimensioned plans and elevations of equipment racks, enclosures, and conduit interconnections, including access and workspace requirements.

4. Wiring Diagrams: For power and signal wiring.

C. Equipment and Software List: Include every piece of equipment and software by product/model name and/or number, manufacturer, serial number, revision number, location, and date of original installation. If factory and/or bench testing regimens are required by the project plan, add pretesting record of each piece of equipment and software, listing name of person testing, date of test, and adjustments made.

D. The Proposer shall also deliver original copies of all licenses, registrations, documentation, disks and other media as may have been included with those commercially available software packages provided with the system. In addition, the Proposer shall ensure that all licenses, registrations and warranties have been transferred prior to final system turnover.

1.37 INFORMATIONAL SUBMITTALS

A. ISO9000 Listing Certificates

B. CE and FCC Compliance Certificates:

C. Field quality-control reports

D. Current Integrator Certification Letter

E. Current Training Certificates (listing expiration dates) for **<two (2)>** technicians from the supporting office

F. Warranty: Software support and warranty information for all components, including Service Level Agreement (SLA) details, and duration of agreement from date of system acceptance by Owner

1.38 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For all components and software to include in emergency, operation, and maintenance manuals.

1. Extra Materials:

a. Return all left-over (unused) product and materials to the Owner

2. Applicable operating system, database, client, and application software on portable storage media

3. Full System Backup as of closeout date on portable storage media

4. Submit one (1) printed and one (1) electronic copy of project binder in final form. This copy shall contain as a minimum:

a. Table of Contents for each element

b. Contractor information - names phone numbers, and email for sales, technical support, and consumables reordering

c. Lists of spare parts and replacement components recommended to be stored at the site for ready access

d. Datasheets for all equipment

e. Operation and maintenance manuals for all equipment

f. Operation and maintenance procedures not covered in manufacture’s manuals

g. Training:
1) Program Syllabus.
2) Manual(s) and Material(s).

1.39 QUALITY ASSURANCE

A. Installation shall comply with federal, state, and local codes and Authority Having Jurisdiction (AHJ)

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. All software and hardware shall be programmed and installed in accordance with manufacturer's specifications.

D. All equipment shall be new, in current production, and the standard products of a manufacturer of ESS equipment.

E. Manufacturer shall guarantee availability of parts, for a minimum of **seven (7)** years from date of shipment.

F. On-site maintenance and repair service shall be available locally and within **four (4) hours** of notification of condition.

G. Contractor shall review drawings and specifications

H. Software integration between all integrated systems shall be tested and certified for interoperability by the manufacturer of each system.

1.40 PERMITS

A. All permits required for the specified performance and completion of the work shall be secured by the Contractor

1.41 PROJECT CONDITIONS

A. Environmental Conditions: System components shall withstand the following environmental conditions without mechanical or electrical damage or degradation of operating capability:

1. Interior Environmentally Controlled Space: Rated for continuous operation in ambient temperatures of 32° to 95° F (0° to 35° C) dry bulb and a relative humidity of 20 to 80 percent, noncondensing.

**PART 2 - PRODUCT SPECIFICATIONS**

2.1 OVERVIEW

A. The Rhode Island Convention Center (RICC) is seeking proposals to furnish and install a Parking and Revenue Control System (PARCS) at the 415,000 sq. ft. Garrahy Courthouse Parking Garage at 75 Clifford Street, Providence, RI 02903.

B. The Garrahy Garage is currently under construction, and is scheduled to open in the spring of 2020.

C. RICC recognizes the need for a parking integrator with the ability to support a multi-site, enterprise level system.

2.2 DESIGN

A. The PARCS shall be an enterprise level platform, and capable of expansion to serve additional locations.

B. The Garrahy Courthouse Parking Structure will include:

1. 8 Lanes of controlled parking

a. 3 Entrance Lanes

b. 3 Exit Lanes

c. 2 Bidirectional Lanes

C. The PARCS shall manage facilities that operate 24/7 for contract and transient parkers

D. Facilities may not always be attended.

E. Network PoE Switches shall be provided by others.

F. All 120VAC shall be provided by others.

G. Fire Alarm system connection by others.

H. All Ethernet cabling used shall be CAT6A.

I. The Pay terminals will accept cash, prepay or other electronic forms of payment (i.e. debit or credit card)

J. The parking system will be comprised of gate controls, entry and exit stations, and card readers.

K. The system will be managed using software for access control, revenue control, and credit card payments.

L. System shall be compatible with existing Orbis credit card processing system.

M. Headend equipment at the Garrahy Garage (access control field panels, network switches, etc.) shall be located in either the parking office equipment room and/or the IT room.

N. The lanes at the Garrahy Garage shall consist of:

1. The entrance and exit lanes (2 lanes total) to the Ground Level will be fitted with a barrier gate with a hinged arm and a proximity card reader.

a. The card readers will be used to control monthly parkers who work at the courthouse.

b. The card readers will be connected to the parking access control software.

2. The entrance and exit lanes (2 lanes total) to the Judge's Level (accessed by using the Ground Level lanes) will be fitted with a barrier gate with a hinged arm and a proximity card reader, and a roll up gate (provided by others)

    a. The card readers will be used to control access to the Judge's Level.

    b. The card readers will be connected to existing access control software located in the courthouse and run by the Capital Police.

    c. These readers will be supplied and installed by the Security System Contractor. Reader mounts will be supplied by the Parking System Contactor.

3. Access to and egress from the upper levels (two - seven) will be using the 4 lanes at the beginning of the center ramp in the garage. These are comprised of:
    1) 1 Entrance Lane
    2) 1 Exit Lane
    3) 2 Bidirectional Lanes

    a. Each Lane will consist of and Entry and/or Exit Station, a barrier gate with a hinged arm, and a proximity card reader.

    b. The card readers will be used to control monthly parkers.

    c. The card readers will be connected to the parking access control software.

    d. All other card readers located at the Garrahy Garage will connect to either the existing Courthouse Access Control System or the RICC Access Control System (covered in a separate RFP)

O. Include web-based parking portal for patrons to create an account for managing monthly permits, reserved parking (event reservations) and frequent parking.

P. All equipment shall connect to its central management software via a TCP/IP network.

Q. The only exception to this is a card reader connection to an access control field panel. Such a connection shall be standard Weigand.

R. Workstations for system operation and management shall be located at the locations listed below. If dedicated terminals are recommended, vendor shall furnish and install. If control and management functions are accessed through a web based secure portal, customer PCs may suffice, indicate minimum system requirements in your response.

1. The Garrahy Garage parking office.

2. The RICC North Garage parking office

3. The RICC finance office

S. Cardholder Access (non-billable)

1. Card technology for readers to be connected to the existing Courthouse System

a. Access readers will be semi-flush and/or surface mounted, multi-technology devices incorporating at minimum, 13.56 MHz proximity (smart card) and 125 KHz proximity technology. The access readers will indicate status of badge reads via LED status lights.

b. The badges will be printable 13.56 MHz proximity PVC cards with vertical slot punched for a badge strap.

2. Card technology for readers to be connected to the Garrahy Parking Control System.

a. Access readers will be semi-flush and/or surface mounted, multi-technology devices incorporating at minimum, 13.56 MHz proximity (smart card) and 125 KHz proximity technology. The access readers will indicate status of badge reads via LED status lights.

b. The badges will be printable 13.56 MHz proximity PVC cards with vertical slot punched for a badge strap.

3. The parking access system shall support self-managed online payments by monthly cardholders.

T. Transient Access

1. The Entry and Exit stations shall support tickets using QR codes and Bar Codes.

U. Event Parking

1. All Entry Stations will support a pay-on-entry feature to be used for event parking.

V. Remote Pay Stations

1. Two (2) Remote pay stations (pay-on-foot) will be placed, one in each of the two elevator lobbies (2).

2. Remote pay stations shall support cash, credit card payments and validations only.

W. UPS and lightning protection

1. Electrical power and grounding – Furnish and install on-line, regulating computer grade uninterruptible power supply (UPS) for:

a. Servers and task computers (system controllers) with 30 minutes of back-up battery power.

b. Work stations, fee computers, entrance machines, APS, and local controllers (both revenue and access) (with 30 minutes of back-up battery power).

2. One UPS shall protect no more than two lanes or two workstations or servers.

3. The UPS status is to be monitored through the FMS computer.

4. Equipment layout shall be in strict accordance with manufacturer's recommendations to allow proper movement of air through and around equipment.

5. Provide lightning protection devices at both ends of all communication wiring longer than 50 feet.

6. Provide data line grade, all silicon surge protection that will limit maximum voltage to 200 volts (or less as required by equipment to be protected). Minimum peak power dissipation shall be 15,000 watts.

7. Response time shall be less than 5 nanoseconds. The suppressor shall provide non-interrupting protection with instant automatic reset. The suppressor shall be U.L. listed and meet ANSI CG62.41-1991 Standards

## 2.3 OPERATION

A. Main Features

1. The PARCS shall use barcode and QR Code technology.

2. All PARCS equipment shall be based on multi-slot technology. Credit card reader shall be non-motorized card-reader and separated from the ticket issuing / reading device.

3. PARCS shall be installed on a server or hosted environment.

   a. Hosted solutions (or a combination of hosted and on-site backup) are preferred, provided they allow for continuous operation even in the event of failure of the Internet connection between users and the host. Describe in detail the capabilities of the proposed system in this area.

   b. On-site server based solutions may be acceptable. Be sure to include full information regarding system architecture, reliability, and security and environmental requirements for the on-site equipment.

4. The PARCS equipment shall be a microprocessor-based system, running real time firmware. Programming to all equipment and firmware updates will be done remotely from the PARCS management software.

5. Web Client Station options for the PARCS shall include:

   a. Standard browser for all functionally, including remote customer service interventions.

   b. Browser-based monitoring for payment transactions, transients' and monthlies traffic.

6. The engagement software of the PARCS shall have the following built-in, fully integrated modules.

   a. System Monitoring & Control.

   b. Revenue Management.

   c. Access Control.

d. Validations.

e. External System Integration.

f. Reporting & Statistics.

7. The PARCS shall also be comprised of the following sub-systems:

a. Payment Processing.

8. The PARCS shall utilize RESTful Compliant Web Services whenever possible to support bi-directional integration to external system and platforms.

9. The PARCS shall employ Web Service Messaging to ensure that the system is completely database agnostic so that it can support the most common relational database systems such as PostgreSQL.

## 2.4 NETWORKING

A. All PARCS equipment can be located locally at the parking lot property or remotely connected via a LAN (Local area network) or WAN (Wide area network / internet).

B. The communication protocol between PARCS equipment to other field devices shall be TCP/IP.

## 2.5 SYSTEM SCALABILITY

A. The PARCS shall be expandable by adding cashier stations, entry lane stations, exit lane stations, pay-on-foot stations, validation devices and management web-client stations.

B. The PARCS shall be capable of adding optional features, equipment and interfaces listed in the specifications, even if not initially included or shown on the plans.

## 2.6 GENERAL OPERATIONS

A. Customer Management

1. The PARCS shall support an unlimited number of customer groups with an unlimited number of customers per group.

2. The PARCS shall provide for expiration of an account for unpaid fees, and/or imposition of late fee at user-programmable intervals.

3. User groups and individuals within the user groups shall each be assigned access privileges based upon facilities, date, day of week, time of day, or any combination.

4. The PARCS shall provide full accounting functions including account generation, tracking and account payment collection.

5. Transient Customers

a. Transient entry shall be granted by either:
   1) Pressing a button and pulling a time/date stamped ticked from an entry lane terminal.
   2) Presenting a 1 or 2-dimensional barcode issued from an external reservation system that has been associated with a pre-payment transaction.

b. Transient exit shall be granted by either:
   1) Pay to a non-cash exit lane terminal. Payments shall be made with credit card, pin-less debit card, validated ticket.
   2) Pay to a cashier at a centralized location and then insert the paid ticked at an exit lane terminal. Payments shall be made with credit card, pin-less debit card, cash or validated ticket.
   3) Pay at an automated Pay-On-Foot station and then insert the paid ticked at an exit lane terminal. Payments shall be made with credit card, pin-less debit card, cash or validated ticket.

6. Monthly Customers

a. Entries or Exits shall be granted by:
   1) Present a valid proximity card at a lane terminal.

B. Customer Credentials

1. Ticketless

a. Proximity cards
   1) The PARCS shall use commercially available RFID cards available through any source.
   2) All proximity cards shall have a mill thickness equal to that of a standard credit card.
   3) Cards may be issued by other parties (such as employee IDs) or specific customer groups
   4) Each proximity card shall have a unique ID that allows the card to be administered remotely; e.g., with the card number, a customer service rep should be able to access and change the account profile.
   5) Each proximity card shall be associated with an account, whereby the account's profile controls the allowable use of the card.

2. Ticketed

a. The PARCS shall be able to track an open or closed parking ticket. The tracked ticket shall provide the payment information that is associated to that ticket.

b. The PARCS shall allow customer service personnel to submit single payment requests to Pay-on Foot or Pay-In-Lane Stations.

c. The PARCS shall use printed tickets, with QR codes, bar codes, or other mechanism for encoding information that can be photographed or otherwise viewed.

d. When a ticket is issued, it shall contain:
   1) A unique serial number for the transaction.

2) Complete date and entry time.
3) Facility code, lane number, equipment ID.

e. The PARCS shall be able to generate multi-use (limited duration or quantity) bar-coded reduction ticket/voucher.

C. Operations Monitoring

1. The PARCS shall have real-time monitoring & control capabilities to manage the parking equipment connected to the parking system network such as.

a. Real time monitoring: All transactions shall be displayed in real-time on the operator live screen. This shall include credit card transaction status monitoring and provide an explanation in case a credit card was denied. Other features shall be reprinting a receipt or changing settings for a monthly parker from the real-time screen.

b. Barrier control: Open or close remotely a barrier gate connected to a lane device either temporarily (gate will close if vehicle leaves the safety/closing loop at the gate) or until a new command is sent to the barrier. The barrier shall change its state according to the user programmed schedule of the management software.

c. Equipment status: Display the equipment status in real-time and generate a pop-up window for select messages.

d. Fee change: Send on real-time, a fee change command for a single parking transaction, from the Facility Management System (FMS) to either a vehicle pay station or a pay on foot terminal.

e. Lane activity: Activate/deactivate a terminal either entirely or for select user groups. The barrier shall change its state according to the user programmed schedule of the management software.

D. Receipts

1. Shall

a. Be optional at time of transaction,

b. Have configurable default format per payment device/station.

c. Only print last four numbers of all bankcards.

2. Information available to be printed on receipt shall include:
1) Facility name and address.
2) Receipt #/Transaction #.
3) Time, date, and lane in.
4) Time, date, and lane out.
5) Type of credential.
6) Length of stay.
7) Parking fee.
8) Total amount.
9) Method of payment.

10) Amount paid.
11) Change Due
12) Breakdown of charges by time and rate.
13) Discounts applied.
14) Cashier ID#.

3. System shall offer ability to generate a receipt after the fact.

4. Receipt shall be printed on off-the-shelf roll paper (2.25" paper width).

E. Grace Periods

1. The PARCS shall allow configurable grace periods for the following:

a. Between entry with a transient ticket and arrival at the exit gates; for example, if a customer enters the facility and does not park. This shall be customizable per facility, and shall have overrides for time of day, facility occupancy, event in progress, etc.

b. Between fee payment, at a POF station and exit from the facility, to allow a customer time to get to the vehicle and then proceed to the exit. This shall be customizable per facility, and shall have overrides for time of day, facility occupancy, event in progress, etc.

c. Between the conclusion of an event and the exit from a facility, to give patrons time to return to their vehicles, but not to allow for additional parking, such as to go to dinner after an event. This shall be customizable per facility, and shall have overrides for time of day, facility occupancy, and event in progress.

F. Non-Resettable Counters

1. All PARCS devices shall have non-resettable counters that increments each time the following events occurs:

a. When a ticket is dispensed.

b. Proximity card is read.

c. Credential is read.

d. A payment is received

e. Validated or grace period ticket is processed.

f. A gate vend is generated.

2. Loop-based counts for the Space Count Sub-System increments in the PARCS when loops are activated including directional logic for reverse (i.e. illegal parking facility entry and exit lanes).

3. Loop counts shall continue when the PARCS is offline or when a gate remains up.

G. Nested Areas

1. The PARCS shall have the following nested parking area capabilities:

    a. Accommodate the use of nested areas in the parking facility with separate entry/exit gates, requiring a pre-authorized credential for access.

    b. Track customers or vehicles into and out of any nested parking area via the following authorization credentials:
        1) Parking or valet tickets.
        2) Proximity, Mag-Stripe, Smartcard cards.
        3) Encoded QR/Bar Codes.

H. System Auditing

1. The PARCS shall provide the following financial, transactional, and operational auditing abilities:

    a. Trace any individual ticket from entry to exit.

    b. See all transactions that occurred on any credential (such as a permit or license plate), even if the transactions were submitted by an external system (such as an online prepayment).

    c. Trace validations by individual merchant.

    d. Find a bankcard transaction via its last 4 digits of the card number.

    e. Locate all transactions performed at any individual device.

    f. Locate all transactions performed by any account (all cardholders under one account).

    g. Discover all transactions performed by any individual cardholder.

    h. Isolate and examine all exception transactions.

    i. Find all changes to configuration, rates, discount programs, customers, etc.

I. User Access

1. Access to system functions shall be based upon the user's operational role.

2. The PARCS shall incorporate password policy that shall include the following programmable parameters:

    a. Minimum Password Length.

    b. Enforce Password History.

    c. Password Must Meet Complexity Requirement.

3. The PARCS shall support maintenance of access level tables through a security administration function. These tables shall be used to establish employee and employee group access to PARCS devices, Network, database and data.

4. Based on password/user ID security, any authorized user shall be able to download to any single piece of PARCS equipment:

    a. Security access codes.

    b. Rate changes.

    c. Configuration files.

    d. Operational parameters.

    e. New and updated ticket layout and text.

    f. New and updated customer display screen text.

    g. Any other information necessary for the operation and maintenance of the PARCS equipment.

5. Authorized users shall be able to select the date and time when any data download is to occur and to review and cancel any previously scheduled download.

## 2.7 SYSTEM PERFORMANCE

A. General Operations

1. The PARCS shall operate twenty-four (24) hours per day and seven (7) days per week.

2. The PARCS must be designed and implemented to facilitate prompt repair for all failed or degraded PARCS components by providing subsystems and devices with field-replaceable components.

3. Bankcard processing time shall be no longer than 8 seconds for most common major credit cards, regardless the amount of equipment that is sharing the parking centralized credit card server

B. Device Accuracies

1. Ticket processing devices must have a ticket read accuracy rate of 99.999%, assuming all unreadable (mutilated, blank or foreign) tickets and/or damaged cards are excluded.

2. Parking space counts for any individual parking lot/garage must be no less than 98% accurate (FMS count compared to manual count}. Counts for all the facilities must be 99% accurate.

## 2.8 PARCS MANAGEMENT SOFTWARE

A. The PARCS shall include a real-time Facility Management System and shall be designated as the FMS.

B. The FMS shall have the capability to work on premises or hosted.

C. FMS web clients can be added to the PARCS network via browser to support real- time monitoring & control from multiple locations.

D. The PARKS shall be able to support an unlimited number of FMS web clients regardless of their location on the network.

E. The FMS shall have the capability to control multiple parking lots from the same server or cloud service.

## 2.9 SYSTEM MONITORING

A. Device Status

1. The FMS shall be capable of monitoring in real-time the status of the various lane devices and the corresponding subcomponents and shall have the following capabilities:

2. Monitor the operational status of all entry lanes:

   a. Lane status: open or closed.

   b. Device status: active or out of service.

   c. Door status: open or closed.

   d. Gate failure.

   e. Gate up.

   f. Low-ticket/ Out of ticket condition.

   g. Jammed ticket.

   h. Illegal exit - reverse direction through lane.

   i. Stolen ticket.

   j. Back-out.

3. Monitor the operational status of all exit lanes:

   a. Lane status: open or closed.

   b. Device status: active or out of service.

   c. Door status: open or closed.

   d. Gate failure.

   e. Gate up.

   f. Low receipt / Out of receipt condition.

g. Jammed receipt.

h. Illegal exit - reverse direction through lane.

i. Stolen ticket.

j. Back-out.

4. Monitor the operational status of all pay-on-foot stations:

a. Low receipt / Out of receipt condition.

b. Jammed receipt.

c. Stuck credit card.

d. Door status: open or closed.

B. Transaction Counts

1. Each time a system even occurs the FMS shall increment a count.

a. For Entry Stations:
1) Total counts as well as subtotals of tickets dispensed.
2) Credit cards ticket used as entries.
3) Proximity entries.
4) Access credentials read in the entry lanes.

b. For Exit Stations:
1) Total transactions processed and subtotals.
2) Cashier Stations:
3) Transactions.
4) Proximity transactions.

2. Exit Station transactions, and access credentials read in the exit lanes.

3. All entry and exit station transaction counts shall appear in lane activity reports and ticket inventory/status reports.

C. System Alerts

1. The FMS shall have the following system alert capabilities:

2. An alarms function shall allow the user to select which events to alarm.

3. Alerts can be displayed on a workstation or sent to an authorized user via email or text message.

4. Abnormal status conditions shall be flashed on monitor(s) and accompanied with an audible alarm.

5. Display shall continue to flash until abnormal condition is corrected. Audible alarm shall continue until it is turned off by a command issued from a PARCS monitoring workstation(s).

6. Acknowledgement and turning off any alarm condition shall be able to be performed at any workstation with access to FMS.

7. It shall not be necessary to acknowledge alarm condition at every workstation.

8. The FMS shall record abnormal status condition and acknowledgement of alarm condition by time, workstation and operator.

9. Authorized users shall see and be able to manage alarms.

10. Alarms shall be selectable as visual, audible, or both.

D. Event Logs

1. The FMS shall have the following event log capabilities:

2. Record all system events, which can be viewed on a workstation or printed.

3. Record the specific information and details for changes to system configurations including type of change, date/time, and user ID.

4. Shall support the sorting of events by activity type and/or device ID and provide sum totals

E. Users Access

1. The FMS shall provide individual access rights to users.

2. Each user shall be able to access the FMS with his individual password.

3. Users shall be able to access only the modules and options that have been set by software administrator.

## 2.10 REVENUE MANAGEMENT

A. General Functionality

1. The FMS shall be able to set up at least 100 different price lists that each of them can be utilized with conditions as – Early birds, Evening Special and weekend specials.

2. The rate structures shall be available to be utilized by either:

3. Transient customers: Rate structure is assigned to regular transient parking tickets.

4. Discount Validations: Validated parking ticket that is assigned to a different weekly rate structure.

5. Equipment selection: Transient parkers entering the lot through specific entry lanes, shall be associated to a rate structure for that specific lane.

6. The PARCS shall provide the Customer Transaction History to identify customers with frequent lost ticket, lost prepaid tickets based on the driver's license number input for these transactions.

B. Payment Methods

1. The PARCS shall be able to handle the following payment methods:

a. Banknotes and coins.

b. Credit/debit bankcards (including contactless, mag stripe, chip and pin).

c. Mobile payments.

d. Courtesy cards.

e. Google Wallet/ApplePay.

C. Rate Structures

1. The FMS shall allow the following rate structures:

a. Pay per use.

b. Flat rates.

c. Rate increments.

2. Flexible Rates which can be:

a. Set by credential.

b. Set by parking product.

c. Set by parking facility.

d. Set by area of a parking facility.

e. Set by time of day, day of week.

f. Daily rates.

g. Weekly rates.

h. Monthly rates.

3. The rate structures shall be configurable by the garage operator without need for a programmer to modify code and accommodate the following:

a. Unlimited number of rates.

b. Automatic adjustment for daylight savings time and leap year in fee calculations.

c. Twenty-four (24) hour maximums.

d. Grace periods.
   1) Provide a configurable Grace Period that has a zero (0) dollar charge for customers exiting within the grace period. These transactions shall be coded in PARCS as grace period transactions and shall be included in the Cashier Shift and Transaction reports.

e. Lag time period.
   1) Provide a configurable Lag Time Period that has a zero (0) dollar charge for customers exiting within the lag time period. Lag time is defined as the time a ticket is paid at a POF station until the vehicle exits the parking facility.

D. Discounts & Promotions

1. The PARCS shall be capable of supporting the following discounts:

a. Full discount with no maximum.

b. Full discount with selectable maximums.

c. Fee discounts allowing a specified dollar amount to be subtracted from the total calculated parking fee.

d. Dollar value discount per time increment (i.e. discount per hour, per day, per week, etc.).

e. Percentage discount allowing a percentage to be deducted from the total fee amount.

f. Discounts that use a different rate structure to compute the parking fee.

g. Entry time discounts allowing an amount of time to be subtracted from the sequence of time intervals defined in the fee table, beginning with the entry time.

h. Exit time discounts allowing an amount of time to be subtracted from the sequence of time intervals defined in the fee table, beginning with the exit time.

i. Surcharge fees allowing a fixed fee that is charged in addition to the parking fee.

j. Discounts can be issued with start and/or expiration dates.

k. Discounts can be valid based on time and location restrictions.

l. Each discount shall have a unique identification number to track activity and discount values processed.

m. PARCS shall accept, at a minimum, the following discount types at all PARCS point of sale devices:

n. Encoded on dispensed paper tickets.

o. Reduction tickets

p. Both the Reduction coupon and ticket shall be voided after exit is complete.

q. If a transaction is cancelled in the exit lane, the validated Reduction coupon and dispensed ticket shall be returned to the user and shall not be voided.

r. Barcode and QR code printed on paper or presented on a smart phone.

s. Manually processed discounts using a key or code on the Cashier Stations, FMS workstations, Valet with no limit to the number of discounts configured.

t. Valid ID where a discount is applied via a web client or phone by entering the entry media number and discount code that is sent to the FMS and applied to the entry media at exit.

E. Validation Module

1. The FMS shall allow approved users to create barcoded Promotional Discounts that can be printed, emailed to customers, published in 3rd party materials, and/or downloaded from an approved website.

2. Promotional discounts can be printed by the customer and/or downloaded to a smart phone by its customers.

3. Both the Reduction coupon and ticket shall be voided after exit is complete.

4. If a transaction is cancelled in the exit lane, the validated Reduction coupon and dispensed ticket shall be returned to the user and shall not be voided.

5. After a successful exit, the validation amount and type are recorded in the PARCS database for reporting purposes.

6. For customers who enter on or after the promotional start date but exit after the promotion expiration date, the FMS shall provide the following options:

7. Allow all of the promotional value for the entire stay.

8. Allow the promotional value only through the promotional expiration date.

9. The FMS promotional discount shall allow the same value as the discount types provide prior to the expiration date or defined promotional period.

10. The FMS shall allow each type of promotional discount to be assigned a unique validation account number so that the number of discounts generated and used at exit are recorded by the unique account number and reported in the same manner as other PARCS validations.

11. The FMS shall allow the ability to input and process unreadable promotional discounts.

12. The FMS shall have the ability to offer and track multiple promotions simultaneously.

F. Manual Fee Management

1. The PARCS shall provide the following remote fee management functionality:

2. Allows the following exception transactions occurring at Exit Stations to be processed at a PARCS workstation and records each exception type uniquely.

   a. Unreadable entry media.

   b. Unreadable proximity cards.

   c. Swapped tickets.

   d. Stolen tickets.

   e. Unreadable validations.

   f. Lost prepaid tickets.

3. Allows customer service personnel to find an entry date based on the entry media number.

4. Once the entry date is found the FMS automatically computes the parking fee and displays the fee at the exit lane device.

5. If an entry date is not found, customer service personnel shall be able to manually input an entry date in order to compute the parking fee or to select a lost ticket fee. The fee is automatically displayed at the exit lane device.

6. After successful completion of the transaction, the entry media is automatically marked as ‘closed’ in the system.

7. If a paper ticket paid at a POF unit is unreadable at exit, customer service personnel shall allow the ticket sequence number to be input. The FMS shall locate the POF payment data to complete the transaction and shall automatically compute and display any additional fees due at exit.

8. Allows customer service personnel to apply a discount to a parking transaction and input the reason for the discount in an input field with drop down menu.

9. Records the different exception transaction types in the transaction database so that the type of exception transaction is displayed in the FMS reports.

10. Provides reports and accountability features per cashier ID on a shift basis.

G. Exception Transactions

1. The FMS shall support the following exception transactions:

   a. Lost tickets.

   b. Back out tickets.

c. Unreadable entry media.

d. Unreadable POF prepaid ticket.

e. Swapped ticket.

2. Each exception transaction type shall be recorded as a unique type in the FMS so that data by each exception transaction type is available.

3. The FMS shall provide the capability to report on all exception transaction data for a selectable time by transaction type, device ID, or user ID.

H. Customer Transaction History

1. The FMS shall provide the Customer Transaction History to identify customers with frequent lost ticket or lost prepaid tickets.

2. The FMS shall provide repeat occurrences to be displayed at the remote web client for these exception transactions.

3. All past occurrences that match the criteria entered are displayed with the primary sort being the transaction type and the secondary sort being the transaction date, in descending order.

4. Past occurrences can be configured to not appear beyond a selectable date/year.

5. Display of past occurrences can generate an automatic alarm, an additional fee, or require a supervisor's approval to proceed for occurrences exceeding a configurable threshold set by the operator or can simply be informational and handled outside of the FMS.

## 2.11 ACCESS CONTROL

The FMS shall include a fully integrated Access Module to manage monthly parking services.

A. General Functionality

1. The FMS shall provide the following tag management functionality:

a. Securely activate and personalize an Access Credential.

b. Handle 250,000 tag holders per local parking facility.

c. Allow authorized users to create accounts (companies & Sub-companies) and activate/deactivate credentials.

d. Allow account settings to be changed for a credential.

e. Retain credential account and activity history after the credential is deactivated and re-issued to a different user.

f. Shall be capable to distinguish between different parking zones and apply restrictions accordingly.

g. Provide ability to have master account (companies), subaccounts (sub-companies).

h. Set access restrictions by facility, master account, sub account, and individual credential for time of day and day of week parameters.

i. Assign passback setting by master account (companies), subaccounts (sub-companies), individual credential, and by facility.

j. Provide the ability to reset the access credential status for individual access credentials, by group and by facility.

k. Be able to check credential validity at the time of entry.

l. Record all card usage including the lane ID, entry/exit date/time, credential number, and passback status.

m. Generate a record of all activity related to a master account or an individual credential in the FMS database for a selectable time.

n. Provide notification to the facility holder of the following information:
   1) Fee due date.
   2) Past due amounts.
   3) Annual renewals.

o. Troubleshoot faulty credentials. Allow quick look-up the credential status, credential lane activity and payment history to determine if the gate is not vending due to passback violation, inactive status, or payment issues.

2. The FMS shall have, the following data input fields available for each credential account:

   a. Unique credential number.

   b. Additional credential number.

   c. Customer ID number.

   d. Account number.

   e. Credential holder name.

   f. Credential validity period.

   g. Credential holder organization.

   h. Credential holder department.

   i. Credential holder telephone number.

j. Credential holder email address.

k. Parking privilege code(s).

l. Credential fee/rate.

m. License plate number (LPN).

n. Driver's license number.

o. Vehicle ID number.

p. Vehicle make/model.

3. Support 500,000 cardholders.

4. Capable of setting different access privileges for an entire group or for an individual tag holder.

5. Able to distinguish between different parking zones and apply restrictions accordingly.

B. Daily Tag Management

1. The FMS shall provide the following tag management functionality:

a. New Tag holder: Record Tag holder details such as identification details, tag number, monthly fee, expiration date and group or sub-group association.

b. Renew Tag: The expiration date can be changed for an existing monthly tag holder or for a temporarily blocked tag to allow access to the facility again.

c. Block a Tag: Change the status of a tag to "blocked" without altering its associated tag details.

d. Unblock a Tag: Change the status of a blocked tag to "normal" without altering its associated tag details

e. Cancel a Tag: Cancelation of a tag in the system shall cancel the tag but not the tag history.

f. Be able to assign each tag a certain number of units. Once these units are used the tag shall not be accepted at the entry/exit terminals.

C. Tag Restrictions

1. The FMS shall have the ability to add the following restrictions to individual tag holders:

a. Anti-Pass back: In the event a tag is "passed back" to allow an additional vehicle entry into the facility the tag shall be denied access.

b. Loop Presence: Prevents a pedestrian to present a tag without a vehicle.

c. Access restriction: Prevents the tag holder to pass through certain lanes

d. Company Full: Prevents the tag holder to access a nested area or the garage when the total available parking slots assigned to the particular tag holder group has been occupied.

e. Granting facility access by particular tag holder group who have been assigned special pricelist or when certain rules apply.

## 2.12 VALIDATIONS

A. The FMS shall include a fully integrated Validation Module to support the implementation and tracking of discount programs and other special purpose parking fee reduction transactions.

B. The purpose of validation system is to allow transients customers to change the default rate calculation of their parking ticket by presenting the ticket to a validation device or by placing a physical stamp that is electronically readable in the PARCS equipment.

C. General Functionality

1. The Validation Module shall have the following capabilities:

2. All transient parking transactions shall allow for use of a validation and shall be able to be associated to many different merchants or user groups.

3. Validations can be generated by different users or by the permitted user only.

4. Restrict the validations to certain dates & times or to particular days of the week.

5. All parking devices in the lot shall recognize the validation, calculate the new parking fee and update the balance accordingly

6. Validations shall include the following:

7. Validations Encoded on Issued Paper Ticket – shall be processed at Exit Station or Cashier Station.

8. Separate Validation Reduction Coupon – shall be processed at Exit Station or Cashier Station.

9. QR code validations processed at Exit Station or Cashier Station:

a. Printed on paper.

b. Presented on a smart phone.

c. Manual Validation - validation function keys on the Cashier Station or via remote FMS workstation.

D. Validation Types

1. The Validation Module shall be capable of supporting the following different types of validations:

a. Flat Rates.

b. Discounted rates.

c. Percentage discounts.

d. Hourly discounts.

e. Change price lists.

f. Change ticket to allow multiple entries and exits.

E. Validation Methods

1. The Validation Module shall support the following types of validation methods:

2. Reduction Tickets (Coupons)

a. Reduction tickets shall be pre-printed from the management software. The Reduction ticket shall be used at a Pay-On-Foot station.

3. Pre-Paid.

a. On-Line Web Validations.

b. Desktop browser.

c. Mobile App.

F. Monitoring & Control

1. The Validation Module shall have the following monitoring & control abilities:

a. The ability to modify or terminate existing validations at any time.

b. Support the production of validation tickets directly from the FMS

c. Allow the encoding of various values of coupons.

d. Shall support a minimum of 10,000 validation accounts with unlimited validations associated with each account.

e. The ability to generate and able print validation reports from remote FMS workstations

f. Shall support for a Web interface for merchants that can validate parking tickets without the need for Reduction tickets, stamps, or punches.

g. Support a variety of online PARCS devices for the real-time validation of parking tickets

## 2.13 EXTERNAL SYSTEM INTEGRATION

A. The FMS shall provide tools to interface to external platforms and systems.

1. System APIs shall provide a real-time interface utilizing REST.

2. APIs shall support security authentication of all clients invoking APIs so that each individual client is identified for each API call.

3. The FMS shall allow for logging all requests and responses to and from the APIs.

B. Prepaid Reservation (3rd Party Providers)

1. The FMS shall be able to interface with Ticket Master on-line reservations platform.

a.

C. Pay by Mobile

1. The FMS shall be able to interface with the following the mobile payment platforms:

a. Parkmobile

b. ParkWhiz

c. ApplePay

d. Google Wallet

D. Accounting & Revenue Control

1. The FMS shall be able to interface with the following parking focused revenue platforms:

a. PARIS

b. Rome

E. Building Systems

1. The FMS shall be able to interface with physical security access control solutions.

## 2.14 REPORTS

The FMS shall include a fully integrated Reports Module with the following capabilities:

A. General Functionality

1. The FMS shall maintain a minimum 36-months' worth of data for use by the Report Module.

2. Reports can be scheduled to run and emailed to specified users.

3. Reports can be scheduled to run automatically. For example, on the first day of each quarter, weekly, etc.

4. The Reports Module provides real-time reporting.

5. Reports (manual and automated) can be run at any time and not impact the system performance.

6. Reports can be exported to Microsoft Word or Excel.

B. System Reports

1. The Turnover Report: Is a daily income statement that shows payment totals, credit outlay totals, payment summaries and till totals broken down by payment station.

2. The Tariff Transactions Report: Is a payment reconciliation statement, sorted by payment types that were received during a specified time period.

3. The Consolidated Revenue Report: Provides the sub-total and aggregate totals of transactions and revenue amounts, sorted by payment type during a selected time period

4. The Currency Value by Payment Report: Lists the daily payment receipts, broken down by rate type that were issued during a selected time period. The report also provides gross revenue totals plus sub-revenue totals by payment date.

5. Card Payment Report: Is a detailed list of credit card transactions, sorted by garage location and credit card type that occurred during a particular time period.

6. Cash Counters Report: Lists the cash and coin values for each payment station broken down by note safe, bill cassettes, coin hoppers and coin safe.

7. Manual Cashier Shift Report: Is a detailed list of ePurse payment transactions, broken down by customer that occurred during a selectable time period. The report provides relevant customer data and detailed financial information per transaction.

8. Manual Barrier Report: Is a list of gate openings, sorted by lane station, during a specific time period.

9. Problem Event Report: List of events such as anti-passback, credit card declined, and maintenance alerts broken down by station for a specific time period.

10. Station Usage by Customer Type Report: Maintains transient, monthly and gate activity counts for each entry and exit lane during a specified time period.

11. The Outstanding Ticket Report: Lists the parking tickets, sorted by entry station that have not exited the parking facility during a particular time period.

12. The Replaced Ticket Report: Lists the tickets that were manually restored by customer service personnel during a specific time period.

13. The Transient Duration Report: Displays chronologically, transient customer occupancy statistics during a specific hour during the day.

14. The Dwell Time Report: Displays chronologically, monthly customer occupancy statistics during a specific hour during the day.

15. The Occupancy by Company Report: Lists hourly employee counts, broken down by company during a selected time period.

16. The Company Transaction Report Is a chronological list of monthly customer entry and exit transactions over a selected period of time sorted by company.

17. The Company Reductions Report: Is company validation reconciliation statement, broken down daily, for a selected time period. The report also details tabulated debit totals by validation type.

18. The Company List Report: Provides personal profile information about each registered company with garage usage privileges.

19. Station Usage by Timeframe Report: Lists monthly customer entry and exit traffic transactions, sorted by calendar date over a specific time period.

## 2.15 PAYMENT PROCESSING

A. The PARCS shall include a real-time terminal-based payment system (TPS).

B. The TPS will work with the gateway provider(s) such as APRIVA and CreditCall, and the existing Orbis service.

C. The TPS shall provide online real-time authorization for bankcard payments made at all of the garage's point of sale devices.

D. The TPS shall be cloud based application that connects to the processor i.e. TYSYS, Heartland, Global, EVO, Chase etc... The payment terminals will connect directly to the processing gateway shall be through a WAN (Wide Area Network) connection, utilizing secured TCP/IP protocol.

E. The PARCS equipment shall be integrated with the TPS through the payment terminals via RS-232 to request payment authorizations only. No cardholder data is read or stored within the PARCS system. The gateway provider(s) and terminal manufacturer will carry and maintain PA DSS requirements.

F. The TPS shall comply with processing requirements for bankcard processing, including, but not limited to, applicable requirements and operating regulations of card brand associations, card issuers and clearinghouses.

G. Bankcard processing time shall be no longer than 8 seconds for most common major credit cards, regardless the amount of payment terminals that are on the PARCS network.

H. The following types of bankcards/devices shall be accepted at all point of sale devices for parking access and payment (all cards/devices shall be processed without a PIN):

1. Magnetic-stripe bankcards.

2. EMV Chip bankcards.

3. Contactless bankcards.

4. NFC-based payment from smart phones.

I. The TPS shall accept major bankcard types (i.e. credit, debit and prepaid) and the following card brands - American Express, Discover, MasterCard, Visa and Diners Club for payment.

J. For all approved bankcard authorization requests, the PARCS shall be capable of providing a bankcard transaction receipt with an optional signature line.

K. The PARCS shall not retain bank card or payment account number details.

L. The TPS shall provide online real-time authorization for bankcard payments made at all of the garage's point of sale devices.

M. For payments, bankcard data shall be read and transmitted to the TPS /acquirer ("clearinghouse"). The clearinghouse shall provide authorization for all bankcard purchase transactions.

N. The TPS shall provide end-to-end encryption, however point-to-point encryption shall be accepted.

## 2.16 COMMUNICATIONS

A. The TPS shall provide communication with financial institutions (banks and/or clearinghouses) for the purposes of obtaining authorization to complete a transaction with a bankcard.

B. The PARCS shall include a notification method of communication failures at any point in the data transmission from device to bankcard server to clearinghouse.

C. The TPS shall be able to simultaneously process bankcard transactions from all PARCS devices to the clearinghouse.

D. All communications network components and devices shall utilize end-to-end (i.e. from field device to clearinghouse) encryption or approved equivalent.

E. The future ability for the garage operator to add or change clearinghouses, including future ability to "direct connect" to one or more card brands for authorizations, shall be supported.

## 2.17 FUNDS SETTLEMENT

A. The TPS shall generate an electronic settlement data file and transmission with the appropriate financial institution.

B. The PARCS shall uniquely identify each transaction revenue source in the settlement data:

1. Bankcard deposits.

2. Pre-booking website deposits.

3. Third party sales channels.

C. The PARCS shall provide transmittal and report data that displays:

1. Bankcard revenue by source, parking product, individual parking facility or area and in total for a selectable time.

2. The data shall be able to be displayed by total for each card brand and grand total of all brand subtotals.

2.18 PAYMENT EXCEPTIONS

A. In all cases wherein a bankcard is read, the following most common exceptions may occur that require exception processing. The PARCS shall accommodate the following payment exceptions:

1. Bankcard not found.

2. Unreadable Bankcard.

3. Bankcard denials.

B. The PARCS shall allow configurable messages to be displayed to the customer and the point of sale stations when a bankcard exception occurs.

C. Regardless of the status of the transaction authorization, in all instances the inserted bankcard shall be returned to the customer.

2.19 REVERSALS & REFUNDS

A. The TPS shall allow an authorized user to process customer refunds from the gateway provider's merchant web account.

## PARCS FACILITY HARDWARE

2.20 ENTRY LANE STATIONS

A. The Entry Lane Station shall issue transient tickets and manage/control all access credential users into the parking facility.

B. General Functionality

1. The Entry Lane Station shall have the following capabilities:

a. Push-button Issues a bar-coded parking ticket to each transient customer.

b. No pre-printed bar-coded tickets shall be used.

c. Encoded on the bar-code shall be the entry date and time and a unique identification number for each ticket. Also printed in human readable format shall be applicable ticket details.

d. The ticket's barcoded data shall be sent to and saved by the FMS.

e. Supports fan-folded or roll paper tickets.

f. Grants entry into the facility to monthlies and prepaid transients that present valid transaction authorizations from:
   1) Proximity or mag-stripe cards.
   2) QR/Bar-coded validations.

g. Automatically sends all transaction data to the FMS for generating reports.

h. Allows the use of the customer's bankcard as an alternative to barcoded parking ticket with optional payment terminal.

i. Enables EMV Chip and Pin credit cards for payment with optional payment terminal.

j. Optional contact or contactless payment terminal with secured network connection.

k. Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices

l. Provides analog, digital or VOIP intercom stations options

m. Alerts for all operational exception conditions, including "Ticket Stock Low" and "Ticket Stock Out" conditions.

n. Network communication via TCPIP Ethernet

C. Customer Interface

1. The Entry Lane Station shall have a customer interface with the following features:

a. Illuminated ticket request push button.

b. 7" touchscreen backlit display, readable in all lighting conditions, for patron guidance.

c. Intercom sub-station with call button.

d. Visual customer instructions.

D. Main Components

1. The Entry Lane Station shall be equipped with the following components:

a. Microprocessor based industrial controller, running embedded real time firmware that shall be updated remotely.

b. Unique machine identification number.

c. Direct motor ticket dispenser with ticket mechanism (roll paper or fan fold stock).

d. Data line surge protector.

e. Two-way audio intercom station with call button (analog, digital or VOIP options).

f. Self-conditioning power supply.

g. Optional contact EMV payment terminal.

h. Optional contactless EMV payment terminal.

i. Proximity, Mag-Stripe, MIFARE, NFC readers.

j. QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.

k. A real-time clock (with battery backup) that is updated from the FMS.

E. Remote Management

1. The Entry Lane Station shall have the following remote management capabilities:

2. Sends equipment status, events & transactions data to the central controller and to the FMS.

3. Customer service personnel from an FMS workstation shall be able to open or close the barrier gate connected to Entry Lane Station.

4. Customer service personnel from an FMS workstation shall be able to manually override the entry lane terminal for monthly and transient customers.

5. Remote configuration shall be performed from the FMS.

F. Housing

1. The housing of the Entry Lane Station shall have the following features:

a. Aluminum construction.

b. Equipment color shall be Grey

c. IP-54 water rated.

d. Key components mounted on slide rails for easy access.

e. Side access panel with door and tamper-resistant locks.

f. Door open/tamper sensor.

g. Built in thermostatically controlled heater.

## 2.21 EXIT LANE STATIONS

A. The Exit Lane Station shall be a fully automated access reader, fee computation and verifier; payment device that controls exits out of the parking facility.

B. General Functionality

1. The Exit Lane Station shall have the following capabilities:

a. Accepts, validated roll or fanfold paper parking tickets and grant exit from the facility, if ticket presentation is within the programmed ‘grace time’ for exit after payment.

b. Accepts and reads barcoded roll or fanfold paper parking tickets.

c. Performs parking fee calculations based upon rate structure.

d. Accepts all major credit/debit bankcards for payment.

e. Processes discount validations for fee reduction purposes.

f. Sends all transaction data to the central controller and to the FMS for generating reports.

g. Supports the use of the customer’s bankcard as an alternative to barcoded parking ticket, if the card was presented at entry.

h. Supports EMV Chip and Pin credit cards for payment.

i. Prints customer receipts upon receipt of cash or bankcard payments.

j. Grants exit from the facility to monthlies and prepaid transients that present valid validated authorizations from:
   1) Proximity or mag-stripe cards.
   2) QR/Bar-coded validations.

k. Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices.

l. Provides analog, digital or VOIP intercom station options.

m. Alerts all operational exceptions including “Receipt Stock Low” &“Receipt Stock Out” conditions,

n. Supports network communication via RS-485 or TCPIP Ethernet.

o. Provides a PCI Compliant PA-DSS credit card server connection.

C. Customer Interface

1. The Exit Lane Station shall have a customer interface with the following features:

a. Illuminated front panel ticket push-button.

b. Receipt request push button.

c. 7” touchscreen backlit display that is readable in all lighting conditions for patron guidance.

d. Intercom sub-station with call button.

e. Visual customer instructions.

D. Main Components

1. The Exit Lane Station shall be equipped with the following components:

a. Microprocessor based industrial controller, running embedded real time firmware that shall be

b. Updated remotely.

c. Unique machine identification number.

d. Motorized ticket reader/encoder (roll paper or fan fold stock).

e. Heavy duty thermal receipt printer.

f. Data line surge protector.

g. Two-way audio intercom station with call button (analog, digital or VOIP options).

h. Self-conditioning power supply.

i. Contact EMV payment terminal.

j. Optional contactless EMV payment terminal.

k. Proximity, Mag-Stripe, MIFARE, NFC readers.

l. QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.

m. A real-time clock (with battery backup) that is updated from the FMS.

E. Remote Management

1. The Exit Lane Station shall have the following remote management capabilities:

a. Sends equipment status, events & transactions data to the central controller and to the FMS.

b. Customer service personnel from an FMS workstation shall be able to open or close the barrier gate connected to Exit Lane Station.

c. Customer service personnel from an FMS workstation shall be able to manually override the entry lane terminal for monthly and transient customers.

d. Remote configuration shall be performed from the FMS.

F. Housing

1. The housing of the Exit Lane Station shall have the following features:

a. Aluminum construction.

b. Equipment color shall be Grey.

c. IP-54 water rated.

d. Key components mounted on slide rails for easy access.

e. Side access panel with door and tamper-resistant locks.

f. Door open/tamper sensor.

g. Built in thermostatically controlled heater.

## 2.22 CENTRAL PAY STATION

A. The Central Station should be a centralized, unattended device that provides automated cash and bankcard payment services to parking patrons.

B. General Functionality

1. The Central Pay Station shall have the following capabilities:

a. Shall accept, read and validate barcode encoded roll or fanfold paper parking tickets for use at an exit station.

b. Performs parking fee calculations based upon rate structure.

c. Shall process discount validations for fee reduction purposes.

d. Accepts cash and all major credit/debit bankcards for payment.

e. Supports EMV Chip and Pin credit cards for payment.

f. Accepts value card and monthly card holder payments

g. Supports access payments via proximity card

h. Provides analog, digital or VOIP intercom station options.

i. Alerts for all operational exception conditions, including “Receipt Stock Low” and “Receipt Stock Out” conditions.

j. Network communication via TCPIP Ethernet.

k. PCI Compliant PA-DSS Credit card server connection.

C. Customer Interface

1. The Central Payment Station shall have a customer interface with the following features:

a. Illuminated front panel.

b. Receipt request push button.

c. 7” touchscreen backlit display that is readable in all lighting conditions for patron guidance.

d. Intercom sub-station with call button.

e. Visual customer instructions.

D. Main Components

1. The Central Pay Station shall be equipped with the following components:

a. Microprocessor based industrial controller, running embedded real time firmware that shall be

b. Updated remotely.

c. Unique machine identification number.

d. Motorized ticket reader/encoder (roll paper or fan fold stock).

e. Heavy duty thermal receipt printer (2.28” paper width).

f. Data line surge protector.

g. Two-way audio intercom station with call button (analog, digital or VOIP options).

h. Self-conditioning power supply.

i. Contactless EMV payment terminal.

j. Optional contactless EMV payment terminal.

k. Proximity, Mag-Stripe, MIFARE, NFC readers

l. A real-time clock (with battery backup) that is updated from the FMS.

E. Remote Management

1. The Central Pay Station shall have the following remote management capabilities:

a. Sends equipment status, events & transactions data to the central controller and to the FMS for generating reports.

b. Customer service personnel from an FMS workstation shall be able to manually override the Bankcard Payment Station for monthly and transient customers.

c. Remote configuration shall be performed from the FMS.

F. Housing

1. The housing of the Bankcard Payment Station shall have the following features:

a. Aluminum construction.

b. Equipment color shall be Grey.

c. IP-54 water rated.

d. Key components mounted on slide rails for easy access.

e. Side access panel with door and tamper-resistant locks.

f. Panel open/tamper sensor.

g. Built in thermostatically controlled heater.

## 2.23 PAY-ON-FOOT STATIONS

A. The Pay-On-Foot Station should be a centralized, unattended device that provides automated cash and bankcard payment services to parking patrons.

B. General Functionality

1. The POF Station shall have the following capabilities:

a. Shall accept, read and validate barcode encoded roll or fanfold paper parking tickets for use at an exit station.

b. Performs parking fee calculations based upon rate structure.

c. Shall process discount validations for fee reduction purposes including Reduction tickets.

d. Accepts all major credit/debit bankcards for payment.

e. Supports EMV Chip and Pin credit cards for payment.

f. Accepts value card and monthly card holder payments,

g. Supports access payments via proximity card,

h. Accepts banknote cash payments and includes:

i. A bill acceptor-dispenser-recycler unit that shall read, verify and store bills. Bills shall be read in any direction of insertion.

j. A 600 note storage vault. (1000) note unit optional.

k. The bill recycler unit to dispense bills for change. The pay on foot shall be capable to dispense 3 different denomination bills.

l. Cash payment related alerts and transaction shall be monitored by the FMS.

m. Coin acceptor validator.

n. (2) Recycling coin hoppers.

o. Coin safe.

p. Provides analog, digital or VOIP intercom station options.

q. Alerts for all operational exception conditions, including “Receipt Stock Low” and “Receipt Stock Out” conditions.

r. Network communication via TCPIP Ethernet.

s. Provide patron usage guidance in multiple languages.

C. Customer Interface

1. The POF Station shall have a customer interface with the following features:

2. Illuminated front panel.

3. 12” touchscreen display that is readable in all lighting conditions for patron usage guidance.

4. Intercom sub-station with call button.

5. Visual customer instructions.

6. Illuminated user selection buttons.

a. Lost ticket.

b. Language select.

c. Receipt request.

d. Cancel.

D. Main Components

1. The POF Station shall be equipped with the following components:

a. Microprocessor based industrial controller, running embedded real time firmware that shall be updated remotely.

b. Unique machine identification number.

c. Direct motor ticket reader/encoder (handles roll paper or fan fold tickets).

d. High-speed thermal receipt printer (2.25” paper width).

e. Data line surge protector.

f. Two-way audio intercom station with call button (analog, digital or VOIP options).

g. Self-conditioning power supply.

h. Contactless EMV payment terminal.

i. Optional contactless EMV payment terminal.

j. Supports Proximity, Mag-Stripe, MIFARE, NFC readers.

k. QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.

l. A real-time clock (with battery backup) that is updated from the FMS.

m. Single pocket for receipt & change.

E. Remote Management

1. The POF Station shall have the following remote management capabilities:

a. Sends equipment status, events & transactions data to the central controller and to the FMS.

b. Customer service personnel from an FMS workstation shall be able to open or close the barrier gate connected to entry lane station.

c. Customer service personnel from an FMS workstation shall be able to manually override the entry lane terminal for monthly and transient customers.

d. Remote configuration shall be performed from the FMS.

F. Housing

1. The housing of the Pay-on-Foot Station shall have the following features:

a. Aluminum construction.

b. Equipment color shall be Grey.

c. IP-54 water rated.

d. Key components mounted on slide rails for easy access.

e. Front access doors with tamper-resistant locks.

f. Door open/tamper sensor.

g. Built in thermostatically controlled heater.

h. Custom front panel graphics.

## 2.24 ACCESS CARD READERS

A. The Card Reader Station shall be a fully automated, in-lane access reader that controls entries and exits into and out of the parking facility.

B. General Functionality

1. The Card Reader Station shall have the following capabilities:

2. Grants entries and exits into and out of the parking facility to customers that present valid authorizations from:

a. Proximity, Mag-Stripe, Smartcard cards.

b. Encoded QR/Bar Codes.

3. Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices.

4. Provides analog, digital or VOIP intercom station options.

5. Automatically sends all transaction data to the central controller and to the FMS.

6. Network communication via TCPIP Ethernet.

C. Customer Interface

1. The Card Reader Station shall have a customer interface with the following features:

2. 7” backlit display, readable in all lighting conditions, for patron guidance.

3. Intercom sub-station with call button.

4. Visual customer instructions.

D. Main Components

1. The Card Reader Station shall be equipped with the following components:

a. Microprocessor based industrial controller, running embedded real time firmware that shall be updated remotely.

b. Unique machine identification number.

c. Data line surge protector.

d. Two-way audio intercom station with call button (analog, digital or VOIP options).

e. Self-conditioning power supply.

f. Proximity, Mag-Stripe, MIFARE, Smartcard reader.

g. QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.

h. A real-time clock (with battery backup) that is updated from the FMS.

E. Remote Management

1. The Card Reader Station shall have the following remote management capabilities:

a. Sends equipment status, events & transactions data to the central controller and to the FMS.

b. Customer service personnel from an FMS workstation shall be able to open or close the barrier gate connected to the Card Reader Station.

c. Customer service personnel from an FMS workstation shall be able to manually override the Card Reader Station for monthly and transient customers.

d. Remote configuration shall be performed from the FMS.

F. Housing

1. The housing of the Card Reader Station shall have the following features:

a. Aluminum construction.

b. Equipment color shall be Grey.

c. IP-54 water rated.

d. Key components mounted on slide rails for easy access.

e. Front access panel with tamper-resistant lock.

f. Panel open/tamper sensor.

g. Built in thermostatically controlled heater.

## 2.25 FMS SOFTWARE SERVER

A. The FMS shall be installed on a server running LINUX operating system.

B. The FMS shall utilize PostgreSQL for database management.

C. The FMS shall support the capability to work in Server / Client mode. Management software clients can be added to the network to support real- time monitoring & control from multiple locations on the network regardless the number of clients that are connected at the same time to the system database.

D. The FMS shall have the capability to control multiple parking lots from one management interface.

2.26 SYSTEM EXPANSION

A. Please describe all architectural break points in the systems proposed, where adding some increment of capability would require a large expenditure to expand capacity.

1. A breakpoint could be a hardware maximum, licensing threshold, transactions per hour metric, etc. For example, suppose the proposed system allows for up to 20 users, but the addition of the 21st requires purchase of a larger core server and storage array that could serve 21-40 users.

2. Include cost information for each step.

**B. ADD ALTERNATE # 1: North and South Garage**

1. Customer currently manages two other garages in Providence, namely the North Garage (1612 spaces) and the South Garage (463 spaces) serving the Convention Center and the Duncan Donuts Center.

2. The PARC system currently supporting those garages is reaching the end of its useful life, and needs to be upgraded or replaced.

3. Please include as a separate itemized cost section (not included in the Garrahy system costs), and labeled Alternate #1: North and South Garage, information on expanding the system to include the North and South Garages.

4. Counts:

a. Lanes total 11 (breakdown below)
   a) 4 Entrance lanes
   b) 4 Exit Lanes
   c) 3 Bidirectional Lanes

b. 10 attendant booths: (8) north garage and (2) south garage

c. Up to twelve (12) Pay on Foot terminals (in 5 locations)

5. Each Lane will consist of and Entry and/or Exit Station, a barrier gate with a hinged arm, and a proximity card reader.

6. The lanes at the RICC North and South Garages shall consist of:

a. Access to and egress to and from the main exit/entrance located at the West end of the North Garage. These are comprised of:
   a) 2 Entrance Lanes
   b) 1 Exit Lane
   c) 2 Bidirectional Lanes

b. Access to and egress to and from the Hotel exit/entrance located at the East end of the North Garage. These are comprised of:

a) 1 Exit Lane
b) 1 Bidirectional Lanes

c. Access to and egress to and from the South Garage. These are comprised of:
a) 2 Entrance Lanes
b) 2 Exit Lanes

7. Please note that this expansion would begin at the earliest in FY20/21. Please include information on how long the Alternate #1 pricing will remain valid, and what changes are expected should the quotation be refreshed at that time.

PART 3 - EXECUTION

3.1 PLANNING AND SCHEDULES

A. Prepare and include an estimated project plan and schedule. Graphically show the sequence and interdependence of each activity. Submit this schedule / work plan as part of Contractor response.

B. Within fifteen (15) days of receiving Notice to Proceed, the Contractor shall develop and submit a detailed cost loaded project schedule, and schedule of values in a format approved by the Customer's project manager (CPM) for his or her approval.

C. The schedule will be the key document in determining most financial aspects of the project's execution (payments, liquidated damage, incentives, etc.)

D. The project schedule shall include, but is not limited to, an outline of the tasks that must be completed to satisfy all requirements contained in the RFP and contract documents, as well as, the names and responsibilities of all key participants involved in each task.

E. The installation must be scheduled to allow for continuous, revenue-collecting operations of the Parking Facilities. Some installation work will need to occur during off-peak hours.

F. The project schedule shall include completion dates for each task or subtask. The preliminary project schedule and milestones will be attached as part of the contract agreement. Tasks having shared responsibilities that may be outside of the Contractor's direct control or require customer decision making shall be included in the Contractor provided schedule and the CPM will assist the Contractor in procuring the necessary information.

G. The project schedule shall be organized by phase or sub phase (corresponding to a parking facility) and shall include milestones (action and date) for each facility and a level of detail down to the individual lane in each facility. If the Contractor requests to run phases or sub-phases concurrently the Contractor shall provide for separate tracking (to the lane level) for the multiple tasks in process.

H. The Contractor shall provide overall operational completion dates for each phase or sub-phase. The Contractor's failure to meet the milestone dates for the individual phase or sub-phase completion dates shall invoke liquidated damages.

I. The Contractor's project manager shall be responsible for maintaining the schedule for the duration of the project (with regular updates as required by the CPM) and will inform the CPM of

significant foreseeable changes to the schedule at least two weeks before the expected event is to take place. Unforeseen changes shall be reported immediately upon discovery.

J. In the event of such a delay the Contractor's project manager shall be responsible for identifying and proposing methods to get the project back on schedule (or to expedite the schedule) and for making appropriate changes to the schedule, as approved by the CPM.

K. The Contractor's project manager shall also be responsible for communicating any schedule changes (through channels or methods approved by the CPM) to all parties that may be impacted by the change.

3.2 PRE-CUT TESTING

A. Contractor shall draft and provide a customized and detailed test plan to verify the proper operation of the system and its various functions.

B. Prior to receiving final authorization to go live, the vendor will complete the entire battery of tests on all systems in the presence of the owner and / or his CPM. These tests must pass flawlessly.

3.3 CUTOVER ACTIVITIES

A. The Customer reserves final approval on any cutover scheduling.

B. Contractor will then be responsible for transitioning equipment, software and systems to the new system.

C. Upon completion of cutover activities, any equipment that has been replaced and is no longer in use will be collected and disposed of by the contractor.

D. Cabling that is no longer in use shall be removed. Cable that is in good condition and that could be re-tasked for other functions may, with written approval from Customer, remain in place, coiled and properly labeled for future use.

3.4 POST-CUTOVER SUPPORT:

A. Provide for help desk function and coverage to assist customer staff with feature changes and trouble clearing for up to three weeks after cutover.

3.5 TRAINING

A. User Guides

1. The vendor will take responsibility for delivering user training and system use guideline documents in a timely fashion for distribution prior to training and cutover. Electronic versions are acceptable. Materials should be customized to include any Customer specific features and procedures, and Customer logo or other info.

B. Operator training

1. Live staff training classes for the users will be conducted. Customer must approve the training format, materials and training staff. Training staff is to be supplied by the vendor as part of the contract.

2. Training shall cover the basics of system operations in detail, and also go through some of the new features (as compared to previous system).

3. Divide training classes and customize by job functions. (E.g., attendants in garage booths will need different training than supervisory personnel, or back office financial staff.

4. Proposer shall provide thirty hours (30) minimum of training time during a one-month period, followed by another fifteen hours (15) of refresher training to be scheduled within 30 days of acceptance. Per day pricing for additional training shall also be included.

5. Proposer shall maintain records of the training periods given. Any part of the initial period of 45 hours training not utilized prior to the end of system commissioning shall be available for future training of the Customer's representatives during the first twelve months of operation.

6. Proposer shall offer the option of additional periods of training, each period being of a maximum of 20 hours, at any time during the first five (5) year period of equipment maintenance.

## 3.6 ONGOING SUPPORT AND SERVICE REQUIREMENTS

A. Service Calls

1. In the case of any malfunction, the time to repair shall be limited to four (4) hours, 2 hour response time and 2 hour repair time, for faults reported during normal contract hours. For calls outside contract hours, maximum time to repair shall not exceed 24 hours. However, if an after-hours trouble report is reported as an emergency, then the standard 2-hour response / 4-hour to repair shall apply, but vendor may include charges for overtime rates for the work.

2. No equipment, system, or component shall be left non-operable after a 24-hour period following notification by the Customer.

3. Saturdays, Sundays and holidays are normal business days for Customer and should be included in the expected repair warranty coverage.

B. Warranty

1. All equipment shall be covered by a manufacturer's warranty via the Proposer, covering all parts and labor for a two (2) year period, excluding misuse or vandalism.

2. The warranty period will start once the equipment is installed, operational, and is accepted in writing by Customer. This customer acceptance will be triggered after customer and vendor have completed the full battery of pre-service tests, the system is fully in service and operational, and has operated without any malfunctions or trouble

reports for a period of three continuous weeks. Any malfunctions during the acceptance period will reset the clock and start a new 21 day acceptance period.

3. During the warranty period, software modifications (upgrades) that improve the functionality of the system shall be provided to the owner at no additional cost.

4. All warranties are to be delivered to the Customer prior to commencement of the warranty period.

5. Preventative maintenance to be carried out on a cyclic basis, with appropriate equipment functions being checked monthly or more frequently if necessary. Documentation shall be made available for customer inspection on site.

6. Software update and error correction shall be provided as part of the service support function, so that the system is not outmoded or disadvantaged in terms of reliability, spares availability, and repair diagnosis.

C. Maintenance Contract

1. The Customer wishes to secure a long term maintenance and support agreement with the successful vendor. Please provide itemized pricing to extend the coverage period beyond the two-year warranty period by:

   a. Three years, for a **total of five years** from acceptance

   b. Annual renewal, year by year, starting after year 2, for up to five (5) 1-year renewals.

2. Be sure to note clearly if there are any additional required or optional manufacturer support or maintenance components (such as Software Support, etc.) that should be included. All maintenance options or components should be clearly identified and itemized.

3. Equipment or parts to be excluded from the maintenance contract are to be defined, together with estimates of operational life and replacement costs.

D. Transition of maintenance contract to new vendor

1. It is expected that at some date beyond the warranty period initial term, or subsequent renewals, Customer will seek to forge a new maintenance agreement.

2. To facilitate this process, which may include a transition to a new contractor, Customer may wish to move to a month-to-month contract for some period not to exceed 1 year. This month-to-month option shall be offered by the Contractor under the same terms and conditions and costs without penalty.

APPENDIX A: BIDDER QUALIFICATION FORM

## Rhode Island Convention Center

1 Sabin St, Providence, RI 02903

Parking and Revenue Control Systems RFP

# Bidder Qualification Form

August 2019

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Part 1

# Contractor Information

Legal Business Name: _____

Address: _____

Telephone: _____

Owner(s): _____

Primary Bidding Contact: _____

Contact Number: _____ Contact Email: _____

## Part 2

# Relevant Work Experience

(Please provide relevant information from projects within the last three years)

PROJECT ONE

Client/Project:
_____

Address: _____

Scope: _____

_____

_____

_____

Contact Name: _____

Contact Number: _____ Contact Email: _____

Project Start Date: _____Completion Date: _____

PROJECT TWO

Client/Project:
_____

Address: _____

Scope: _____

_____

_____

_____

Contact Name: _____

Contact Number: _____ Contact Email: _____

Project Start Date: _____Completion Date: _____

PROJECT THREE

Client/Project:

_____

Address: _____

Scope: _____

_____

_____

_____

Contact Name: _____

Contact Number: _____ Contact Email: _____

Project Start Date: _____Completion Date: _____

PROJECT FOUR

Client/Project:
_____

Address: _____

Scope: _____

_____

_____

_____

Contact Name: _____

Contact Number: _____ Contact Email: _____

Project Start Date: _____Completion Date: _____

PROJECT FIVE

Client/Project:
_____

Address: _____

Scope: _____

_____

_____

_____

Contact Name: _____

Contact Number: _____ Contact Email: _____

Project Start Date: _____Completion Date: _____

## Part 3

# Manpower

Number of project dedicated Technicians: _____

Number of project dedicated Project Managers: _____

Able to provide 24/7/365 Emergency Service: (Y / N) _____

Response Time (Normal Business) Hours:

Returned Phone Call: _____

Certified Technician Onsite: _____

Response Time (Off-Normal Business) Hours:

Returned Phone Call: _____

Certified Technician Onsite: _____

Distance of closest certified staffed service facility from project side in miles: _____

Will your company outsource / subcontract labor forces for this project? Please Circle (Y / N) ___

(If yes, explain): _____

_____

_____

_____

_____

_____

_____

## Part 4

# Manufacturer Certifications

(Provide copies of company certification, and technician / installer certifications)

Manufacturer Certification(s):

- Technical Resource Name: _____
    - Certification Type: _____
    - Original Certification date: _____
    - Current Certificate Expiration date: _____

- Technical Resource Name: _____
    - Certification Type: _____
    - Original Certification date: _____
    - Current Certificate Expiration date: _____

- Technical Resource Name: _____
    - Certification Type: _____
    - Original Certification date: _____
    - Current Certificate Expiration date: _____

<Attach additional Sheets as necessary>

# Part 5

INSURANCE

Company Name:
_____

Policy Number:
_____

Policy Amount:
_____

Single Project Bonding Limit:
_____

Aggregate Bonding Limit:
_____

I ATTEST THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND ACCURATE AT THIS TIME, AND THAT I WILL PROVIDE ADDITIONAL VERIFICATION IF REQUESTED. OMISSIONS, INACCURACIES, OR MISREPRESENTATIONS WILL RENDER MY BID NULL AND VOID, AND MAY RESULT IN THE LOSS OF BIDDING ANY FUTURE BASF WORK / OR CONSIDERATIONS.

Signature:
_____

Name:
_____

Title:
_____

Date:
_____