

**The Philadelphia Parking Authority**  
**701 Market Street, Suite 5400**  
**Philadelphia, PA 19106**

**Request for Information (RFI) No. 18-23**  
**Parking Access and Revenue Control System (PARCS)**

**Introduction:**

The Philadelphia Parking Authority (PPA) is requesting information regarding your company and your product/service concerning a parking access and revenue control system (PARCS). The PPA will also gather information from other vendors concerning this system, its technology and applicable service. This request for information (RFI) method is not intended to result in a contract award but is designed to allow for the collection of industry information that may be used to assist the PPA in developing a subsequent Request for Proposal. The information received becomes the property of the PPA and is subject to Pennsylvania's Right to Know Law (65 P.S. §§67.101–67.3104).

**Background Information:**

The Philadelphia Parking Authority (PPA) is looking to replace the currently installed HUB/Zeag PARCS and equipment at six (6) of its Center City garages that it operates.

Please see the attached spreadsheet (Appendix A) with the current facility rates at each garage. These rates differ at each of the garages, as they are based on market surveys for each particular locale.

**Scope:**

The Philadelphia Parking Authority (PPA) is issuing an RFI for a PARCS. Fundamental to the functionality of this system, is the ability of the system to do the following (see Appendix B, *Vendor Self-Assessment*). Based on the PPA's mandatory requirements, features and preferences as detailed in Appendix B, please complete the Vendor Self-Assessment and use it as a guide to provide your proposed solution. In addition to the architecture considerations and functionality noted in Appendix B, the new PARCS solution must be flexible and scalable to allow for the changing nature of the PPA's market.

**Information Security and Compliance Services Companies Qualifications**

Please describe any certifications received by the Payment Card Industry Security Standards Council (PCI-SSC). Is the software/firmware used in the processing of Card Data PA-DSS Certified? Is your organization PCI-DSS Certified as a Service Provider. In both cases, if this is not applicable for some reason, please explain in detail.

Please provide information regarding the model and type of the card reading devices and encryption certification(s) acquired for the card readers. Card readers should be P2PE compliant with associated certificates.

Please provide information regarding the handling of a security breach of a device. What services would normally be provide for forensic investigation of your device and incident response in the event that your device is proven to be the cause of the breach?

The PCI-DSS requires merchants to have a well-established contractual agreement stating a Vendor's PCI Compliance responsibilities. What types of PCI-DSS contractual agreements has your company put in place to assist Merchants with their PCI Compliance efforts? Please explain your understanding of the importance of these responsibilities as a PCI-DSS

Level 1 Service Provider. Please provide information regarding the EMV Chip requirements (Chip only, Chip & pin or Chip & signature) and if this will be a standard for the card readers in your device.

## Registration:

Interested parties are required to register for participation in the RFI by emailing Mary Wheeler at [mwheeler@philapark.org](mailto:mwheeler@philapark.org) prior to downloading the documents. Registration shall include contact name, firm name, email address, telephone number and firm address. Only those firms who are registered will receive addenda that are issued.

**The Philadelphia Parking Authority anticipates the following schedule for review of the responses:**

Activity	Date
Opportunity Posted	Friday, November 2, 2018
Question Deadline	Friday, November 16, 2018 at 2:00 PM
Response Submission Deadline	Tuesday, December 4, 2018 at 2:00 PM

All proposals must be presented with one (1) original and six (6) copies, individually numbered, and an electronic version consisting of one PDF file no later than **2:00 PM (EST) on Tuesday, December 4, 2018** to the address below:

The Philadelphia Parking Authority  
701 Market Street, Suite 5400  
Philadelphia, Pa 19106  
Attn: Mary Wheeler  
Manager of Contract Administration

The Authority may request additional information, clarification or presentations from any of the vendors who submit a response to the RFI after the initial review is complete. The Authority may also request to test the equipment proposed at this time.

## Questions Regarding this RFI:

Questions regarding this RFI are to be submitted by email only to Mary Wheeler at [mwheeler@philapark.org](mailto:mwheeler@philapark.org). Questions must be submitted no later than **2:00 PM (EST) on Friday, November 16, 2018**. All questions received by this date and time will be answered appropriately. **The subject title of such emails should read, "RFI No. 18-23 – PARCS - Company Name."** Questions emailed by respondents, and any additional information that the Authority provides in response to such questions will be emailed in addendum form to all of registered respondents. Such distribution will also include posting on the Authority's website.

## Response Content:

Responses are to follow the tabbed format below:

### **A. Cover Letter**

Please include a signed cover letter of no more than one page indicating the name, title, location, telephone number, and email address of the party responsible for responding to this RFI.

### **B. Qualifications of the Vendor**

1. Provide a brief overview of company.

2. All vendors must provide documentation of their stability and ability to support the Scope as requested in the RFI.

- Documentation of longevity in the business
- Documentation of financial stability
- Records of satisfactory performance
- Effective and efficient methods to respond to faults and failures within the system
- Availability of a Project Team committed to the assignment
- Documentation of a project management plan for implementation that includes a quality management plan as well
- Proven ability to provide the type of technology for a company this size
- Proven records of performance and completion schedules
- Interest and knowledge in new technology conducive to this RFI
- Training modules with varying levels of instruction

**C. *Proposed Solution***

**D. *Information Security and Compliance Services Companies Qualifications***

**E. *Additional Information***

Any additional information not specifically requested, but which the respondent deems important and relevant may also be submitted.

**F. *Experience***

Discuss your relevant experience within the public sector the over the past five years. Also, identify locations where your proposed solution is currently in use. Provide contact names, email addresses, mailing addresses, and phone numbers of three references. These references should include customers who are using similar products as are requested in this RFI. The Authority reserves the right to request additional reference information after responses are received if necessary.

**G. *Request for Information Form***

Complete and attach the request for information form included in the RFI document.

## **Philadelphia Parking Authority Policies and Reservation of Rights**

- Joint responses will not be accepted.
- The cost for developing a response to the RFI is entirely the obligation of the proposer and shall not be charged in any manner to the Authority.
- Oral communications from the Authority personnel or other persons shall not be binding and shall in no way materially modify the provisions of the RFI.
- While documents exchanged by or with the Authority or its agents during this process may be protected from public release by certain terms of Pennsylvania's Right to Know Law (65 P.S. §§67.101–67.3104), Pennsylvania's Procurement Code, or other laws, all proposers in the instant process are advised to review such disclosure issues. **Any proprietary information shall be marked as proprietary on each relevant page of the response.**
- The Authority encourages submissions by small and small diverse businesses. The Authority requires that any firm selected to participate in this process not to discriminate nor permit discrimination against any person because of race, color, religion, national origin, or sexual orientation. In the event of such discrimination, the Authority reserves the right to not consider the vendors response to this request for information.

**The Philadelphia Parking Authority  
Request for Information Form  
Parking Access and Revenue Control System  
(Additional Pages may be attached as needed)**

<b>Question:</b>	<b>Response:</b>
Company Name:	
Company Address:	
Company Web Page	
Main Product/Service	
Main Market/Customers	
Ownership Structure with ownership status in percentage	
Structure of mother corporation, joint ventures, subsidiaries, partnerships, or other relevant relations	
Number of years on the market	
Company location(s)	
Environmental Management System(s)	
Quality Management System(s)	
Describe your business Continuity Management	
Total Number of Employees:	
Production	
R&D	
Marketing & Sales	
Quality Department	
Financial Information:	
Last Year turnover	
Last Year Gross Margin	
Last Year Profit	
Stock Markets where your company is listed	
Anticipated Capacity conditions within 12 months	
Conditions in the RFI that cannot be met	
Location available for delivery, if not worldwide	
Availability of spare parts and support worldwide	

## Appendix A

### Garage Transient and Monthly Rate Breakdown



Philadelphia Parking Authority  
 Off-Street Operations  
 Garage Transient and Monthly Rate Breakdown

TRANSIENT RATES															
Location Name	Early Bird	Super Early Bird	Night Rate	Weekend Night	Weekend Flat Rate	Up to .5 hour	Up to 1 hour	Up to 1.5 hrs.	Up to 2 hrs.	Up to 3 hrs.	2 to 10 hrs.	2 to 12 hrs.	10 to 24 hrs.	12 - 24 hrs.	Lost Ticket
Ind. Mall	\$ 14.00	\$ -	\$ 10.00	\$ 7.00	\$ -	\$ 4.00	\$ 9.00	\$ 15.00	\$ 19.00	\$ -	\$ 21.00	\$ -	\$ 23.00	\$ -	\$ 23.00
Olde City	\$ 12.00	\$ -	\$ -	\$ -	\$ -	\$ 5.00	\$ 8.00	\$ 14.00	\$ 16.50	\$ -	\$ 19.00	\$ -	\$ 23.00	\$ -	\$ 23.00
Family Court	\$ 17.00	\$ -	\$ 10.00	\$ -	\$ 11.00	\$ 6.00	\$ 13.00	\$ 19.00	\$ 25.00	\$ -	\$ -	\$ 28.00	\$ -	\$ 29.00	\$ 29.00
MSE	\$ 13.00	\$ 12.00	\$ 10.00	\$ -	\$ -	\$ -	\$ 6.00	\$ -	\$ 10.00	\$ 14.00	\$ -	\$ 22.00	\$ -	\$ 23.00	\$ 23.00
Jefferson	\$ 16.00	\$ -	\$ 9.00	\$ -	\$ -	\$ 6.00	\$ 14.00	\$ 17.00	\$ 21.00	\$ -	\$ -	\$ 24.00	\$ -	\$ 25.00	\$ 25.00
Parkade on 8th	\$ 14.00	\$ -	\$ 10.00	\$ -	\$ -	\$ 5.00	\$ 10.00	\$ 14.00	\$ 17.00	\$ -	\$ -	\$ 19.00	\$ -	\$ 23.00	\$ 23.00

MONTHLY	
Location Name	Regular
Ind. Mall	\$ 235.00
Olde City	\$ 220.00
Family Court	\$ 335.00
MSE	\$ 220.00
Jefferson	\$ 245.00
Parkade on 8th	\$ 210.00

SCOOTER	
Location Name	Flat Rate per day
Ind. Mall	\$ -
Olde City	\$ 5.00
Family Court	\$ -
MSE	\$ 5.00
Jefferson	\$ 5.00
Parkade on 8th	\$ -

Appendix B  
Vendor Self Assessment

**Appendix B Vendor Self Assessment**

Grouping	Sub-Grouping	Reference #	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
				(M)=Mandatory (D)=Desired (F)=Future (NA) Not Applicable	(F)=Fully Meets (P)=Partially Meets (explain) (N)=Doesn't Meet	
<b>1.00 General Functionality</b>						
GENERAL FUNCTIONALITY	1.01	Account for all revenue, by facility, lane, employee, customer, event, program, payment method, and time period, with complete audit trails (any transaction shall be completely auditable from start to finish).	M			
	1.02	Minimize theft and loss of revenue, with accounting for lost or stolen tickets.	M			
	1.03	Maintain a PCI/DSS-compliant environment, consistent with evolving standards and requirements.	M			
	1.04	Provide flexible rate structures capable of handling parking customers of all types, and with the added ability to generate additional new parking programs at any time.	M			
	1.05	Ensure flexibility for any future need to update, upgrade, and/or expand the system readily (either additional lanes or additional facilities).	M			
	1.06	Be fully protected against and not affected by weather/environmental conditions, including temperature extremes, humidity, rain, dust, RFI/EMI, and static electricity.	M			
	1.07	Not emit excessive heat, RFI/EMI, static electricity, or fumes.	M			
	1.08	Meet all ADA requirements (federal, state, local) as of the date of acceptance, along with any other requirements that are published but due to be implemented at a later date.	M			
	1.09	All equipment shall be UL or equivalent listed.	M			
<b>2.00 Standards &amp; Requirements</b>						
NG	2.01	All equipment shall be new, in current production, and the standard products of a manufacturer of PARCS equipment. Manufacturer shall be certified as complying with the standards of ISO-9001 for quality control.	M			
	2.02	All PARCS equipment installed shall comply with: UL 60950-1 (for indoor usage) and UL60950-22 (for outdoor usage), as required and are identified with the UL Mark or equivalent.	M			
	2.03	ALL PARCS equipment shall be certified with a FCC label as conforming to rigid EMC requirements for electromagnetic emissions, immunity and harmonics.	M			
	2.04	Must meet all Federal, State, and Local laws, regulations and codes.	M			
	2.05	ISO 9001 quality assurance standards.	M			
	2.06	Compliant with National Electrical Code (NEC).	M			
	2.07	The PARCS shall comply with Payment Application Data Security Standard (PA DSS), V3.1 or later.	M			
	2.08	The PARCS shall comply with EMV standards effective at the time of implementation, including fully compliant EMV "chip" readers and back-office processing.	M			



**Appendix B Vendor Self Assessment**

Appendix B Vendor Self Assessment						
	MANUFACTURING	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
		2.09	Microprocessor based industrial controller, running embedded real time firmware that shall be PC field programmable.	M		
		2.10	Unique machine identification numbers.	M		
		2.11	Data line surge protection.	M		
		2.12	A real-time clock (with battery backup) in field devices that is updated from the FMS.	M		
		2.13	All PARCS outdoor equipment shall be rated at or above IP54.	D		
		2.14	Field equipment shall be white powder-coated stainless steel and/or aluminum.	D		
		2.15	Field equipment key components mounted on slide rails for easy access.	D		
		2.16	Field equipment which stores money shall have door open / tamper sensors with alarms.	M		
		2.17	Field equipment shall consist of front access panels & doors with tamper-resistant locks, unique to PPA, but similar in all PPA facilities.	D		
		2.18	Field equipment shall have fully-customizable and branded front panel graphics, specific to PPA.	D		
		2.19	Field equipment shall have built-in thermostat controlled heater.	M		
		2.20	Field equipment shall include a heavy-duty thermal ticket / receipt printer where applicable.	M		
		2.21	All PARCS equipment shall be operated with a self-conditioning power supply.	M		
		2.22	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).	M		
		2.23	The communication protocol between PARCS equipment to other field devices shall be 1 pair of RS485 communication or with a plug-in module to communicate in TCP/IP. All devices must be IP addressible with no MOXA converters.	D		
		2.24	The PARCS shall be expandable by adding cashier terminals, entry lane terminals, exit lane terminals, pay-on-foot stations, validation devices and management software workstations.	M		
		2.25	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.	M		
		2.26	The PARCS shall support the following 2 level-redundancy in order to provide ongoing operations in case of network or equipment failure:			
		2.26.01	<u>Normal mode:</u> PARCS field equipment are up and running and managed by the FMS. All transactions and calculations are performed normally, including credit cards acceptance. Credit card acceptance shall depend on an online connection with a credit card server and credit card clearing house.	M		

### Appendix B Vendor Self Assessment

Appendix B Vendor Self Assessment					
ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
GENERAL FUNCTIONALITY	2.26.02	<u>Redundancy Level 1:</u> In case of FMS failure, PARCS field equipment will stay up and running and managed by the local parking system main controller. All transactions and calculations are performed normally, including credit cards acceptance. Credit card acceptance shall depend on an online connection with a credit card server and credit card clearing house. Once connection between the FMS and the parking system main controller is re-established, all transaction data shall pass to the FMS.	M		
	2.26.03	<u>Redundancy Level 2:</u> In case of a total network failure, all lane equipment shall be able operate off-line with limited functionality. Should a total network failure occur, the management of the lane devices will be done independently by the device's onboard local controller; ticket dispensing, fee calculations, cash transactions and monthlies entry & exit shall perform normally. Once connection to the parking system main controller is re-established, all transaction data shall pass to the main controller and to the FMS.	M		
	2.27	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.	M		
	2.28	The PARCS shall allow customer service personnel to submit single payment requests to Pay-on-Foot or Pay-In-Lane Stations. Shall also allow CSR to accept cash payment in an automated lane, using credential to close transaction, then to feed cash into POF to complete transaction. All activity must be recorded on transaction report.	M		
	2.29	The PARCS shall use on-the-fly printed tickets, with QR codes, bar codes, or other mechanism for encoding information that can be photographed or otherwise viewed. Magnetic strip tickets will not be acceptable.	D		
	2.30	ALL PARCS devices should have non-resettable counters for dispensed tickets, all credential-type reads (each type counted separately), a received payment, a processed validation, gate vends and loop counts.	D		
	2.31	Anti-Pass Back protocols are in place to prevent multiple vehicles per account parking in facilities at the same time.	M		
	2.32	Loop counts shall continue when the FMS is offline or when the gate remains up.	M		
VEHICLE COUNTING	2.33	Vehicle counts shall be broken down by the following:			
	2.33.01	Enterprise level (sum of counts from all facilities)	M		
	2.33.02	Facility level	M		
	2.33.03	Nested level (where applicable)	M		
	2.33.04	Transient counts	M		
	2.33.05	Monthly counts	M		
	2.33.06	Special event patron counts	M		
	2.33.07	Valet counts (where applicable)	M		
	2.33.08	Hotel patron counts (where applicable)	M		
	2.33.09	Additional third-party counts as needed (based on using differentiating credentials to enter/exit).	D		

**Appendix B Vendor Self Assessment**

	ing	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	2.34	Space availability counts will be available for public consumption via web site and/or wayfinding signage.	D		
TICKETS	2.35	When a ticket is issued, it shall contain:			
	2.35.01	A unique serial number for the transaction.	M		
	2.35.02	Complete date and entry time.	M		
	2.35.03	Lane number or equipment ID (not printed on ticket).	M		
	2.35.04	The PARCS shall be able to generate multi-use (limited duration or quantity) bar-coded tickets or vouchers.	M		
REAL-TIME SYSTEM MONITORING	2.36	The PARCS shall have real-time monitoring & control capabilities to manage the parking equipment connected to the parking system network such as:			
	2.36.01	<u>Real time monitoring</u> : 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 copy of an entry ticket or receipt and changing settings for a monthly parker from the real-time screen.	M		
	2.36.02	<u>Barrier control</u> : 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.	M		
	2.36.03	<u>Equipment status</u> : Display the equipment status in real-time and generate a pop-up window for select messages.	M		
	2.36.04	<u>Income monitoring</u> : Display in real-time detailed cash or credit card transactions of filed devices.	M		
	2.36.05	<u>Fee change</u> : Send on real-time, a fee change command for a single parking transaction, from the management software to either a vehicle pay station or a pay on foot terminal.	M		
	2.21.06	<u>Lane activity</u> : 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.	M		
RECEIPTS	2.37	Receipts shall be optional at time of transaction, with configurable default per payment device/station.	M		
	2.38	System shall offer ability to generate a receipt after the fact.	M		
	2.39	Receipts only print last four numbers of all bankcards.	M		
NESTED AREAS	2.40	Accommodate the use of nested areas in the 8th & Filbert garage and any other garage where nested areas might be desired.	M		
	2.41	Track customers or vehicles into and out of any nested parking area via the following authorization credentials:			
	2.41.01	AVI, Smartcard cards.	M		
	2.41.02	LPR matching recognition.	F		
	2.42	Support dedicated price rates for nested parking areas.	M		
	2.43	Employ anti-passback functionality to control nested areas.	M		
	2.44	The system shall support handling violations with the following options:			
	2.44.01	Request payment at a payment enabled exit station.	M		
2.44.02	Request payment via report populated by the FMS.	M			

**Appendix B Vendor Self Assessment**

	ing	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	2.44.03	Deny exit until manually addressed by parking operator.	M		
	2.45	Request for payment shall be made to a registered card holder (Monthly) that exceeded their permitted time in a non-authorized parking area. The vehicle may be granted exit privileges from the lot – any exceeding time will be calculated by the FMS after the card holder exited the lot.	D		
SYSTEM AUDITING	2.46	The PARCS shall provide the following financial, transactional, and operational auditing abilities:			
	2.46.01	Trace any individual ticket from entry to exit.	M		
	2.46.02	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).	M		
	2.46.03	Trace validations by individual merchant.	M		
	2.46.04	Find a bankcard transaction via its last 4 digits of the card number.	M		
	2.46.05	Locate all transactions performed at any individual device.	M		
	2.46.06	Discover all transactions performed by any individual cardholder.	M		
	2.46.07	Isolate and examine all exception transactions.	M		
	2.46.08	Find by user all changes to configuration, rates, discount programs, customers, etc.	M		
USER ACCESS	2.47	Access to system functions shall be based upon the user's operational role.	M		
	2.48	The PARCS shall incorporate password policy that shall include the following programmable parameters:			
	2.48.01	Password Aging.	D		
	2.48.02	Minimum Password Length.	M		
	2.48.03	Enforce Password History.	D		
	2.48.04	Password Shall Meet Complexity Requirement.	D		
	2.49	The PARCS shall support logging in via Single-Sign-On.	D		
	2.50	The PARCS shall support logging in via MS Active Directory.	D		
	2.51	The PARCS shall support login in via Shibboleth.	D		
	2.52	Each user shall be able to access the FMS with their individual password.	M		
	2.53	Users shall be able to access only the modules and options that have been set by software administrator.	M		
	2.54	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.	M		
	2.55	Based on password/user ID security, any authorized user shall be able to download to any single piece of PARCS equipment:			
	2.55.01	Security access codes.	M		
	2.55.02	Rate changes.	M		
2.55.03	Configuration files.	M			
2.55.04	Operational parameters.	M			
2.55.05	New and updated ticket layout and text.	M			
2.55.06	New and updated customer display screen text.	M			
2.55.07	View, create, modify or delete card holders or validation data.	M			

**Appendix B Vendor Self Assessment**

ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	2.55.08	Any other information necessary for the operation and maintenance of the PARCS equipment.	M		
	2.55.09	Authorized users shall be able to select the date and time when configuration data downloads	D		
	2.55.10	Is to occur and to review and cancel any previously scheduled download.	D		

**3.00 System Performance**

GENERAL OPERATIONS					
GENERAL OPERATIONS	3.01	The PARCS shall operate twenty-four (24) hours per day and seven (7) days per week.	M		
	3.02	The PARCS shall achieve availability of 99% during operations.	M		
	3.03	The PARCS shall be designed and implemented to facilitate prompt repair for all failed or degraded PARCS components by providing subsystems and devices with field-replaceable components.	M		
	3.04	Bankcard processing time shall be no longer than 5 seconds for non-EMV transactions for most common major credit cards, regardless the amount of equipment that resides on the parking system network.	D		
DEVICE ACCURACIES					
DEVICE ACCURACIES	3.05	Ticket processing devices shall have a ticket read accuracy rate of 99.5%, assuming all unreadable (mutilated, blank or foreign) tickets and/or damaged cards are excluded.	M		
	3.06	Fee calculation accuracy for all devices that perform fee calculations shall be 100%	M		
	3.07	Data transfer (data received, validated and accepted by the PARCS management software from devices or Subsystems) accuracy shall be 100%.	M		
	3.08	Transaction count accuracy for each lane device (transactions processed compared to transactions posted to the FMS) shall be 99.998% for all lane devices.	M		
	3.09	Exception count accuracy shall be 99.998% (exceptions noted at the device compared to exceptions reported to the PARCS management software).	M		
	3.10	Revenue amount accuracy shall be 99.998% (amounts calculated at the device, and where appropriate posted to a local audit trail, compared to amounts posted to the PARCS management software).	M		
	3.11	Revenue reconciliation and data transfer for bankcards shall also be 99.5% accurate (assuming all source data is complete and communications devices operate normally).	M		
	3.12	Parking space counts for any individual parking lot/garage shall be no less than 98% accurate (FMS count compared to manual count).	M		

**4.00 System Configuration & Software Application Requirements**

	4.01	The PARCS shall use barcode technology. Mag-stripe ticket technology will not be accepted.	M		
	4.02	All PARCS equipment shall be based on multi-slot technology. Credit card reader shall be a non-motorized card-reader, and separated from the ticket issuing / reading device.	M		
	4.03	The management software of the PARCS shall be installed on a server running windows server 2008 or 2012.	M		

### Appendix B Vendor Self Assessment

Appendix B Vendor Self Assessment					
ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
MAIN FEATURES	4.04	The PARCS shall utilize SQL Server 2012 / SQL server express 2012 or be Oracle-based.	M		
	4.05	The PARCS equipment shall be a based on microprocessor controlled system, running embedded real-time firmware and shall be PC programmable. Programming to all equipment will be done remotely from the PARCS management software.	D		
	4.06	The PARCS shall be enterprise-worthy, capable of controlling, programming and monitoring multiple facilities through one system / interface. Needing to copy programming from one facility to another or monitoring multiple facilities through multiple instances will not be accepted.	M		
	4.07	Client Work Station options for the PARCS management shall include:			
	4.07.01	Standard PC for all functionality, including remote customer service interventions.	D		
	4.07.02	Browser-based UI for the control and management of the facility.	D		
	4.08	The PARCS shall be able to work in off-line mode with no server.	D		
	4.09	The PARCS management software shall have the following built-in, fully integrated modules:			
	4.09.01	System Monitoring & Control	M		
	4.09.02	Revenue Management	M		
	4.09.03	Access Control	M		
	4.09.04	Validations	M		
	4.09.05	Reporting & Statistics	M		
	4.10	The PARCS management software shall also have the following optional modules:			
	4.10.01	Hotel Guest Parking (where applicable)	M		
	4.10.02	Valet Parking (where applicable)	M		
	4.10.03	External System Integration	M		
	4.10.04	Pre-paid Reservation Systems	M		
	4.10.05	Mobile "Pay-by-Phone" Payment Systems	D		
	4.10.06	Event Management Systems	M		
	4.11	The PARCS shall also be comprised of the following optional sub-systems:			
	4.11.01	Bankcard Processing	M		
	4.11.02	Credit-Card-on-File	D		
4.11.03	Declining Balance / Wallet / Purse	D			
4.11.04	License Plate Recognition	M			
4.11.05	Space Counting & Signage	M			
4.11.06	Parking Guidance	F			
DATABASE MANAGEMENT	4.12	Administrators will grant access to the database for users and be able to limit access based on role.	M		
	4.13	Database will manage a manual and automatic scoff table and alert administrators and enforcement personnel when a scoff file is scanned by enforcement personnel or fixed camera.	F		
	4.14	PPA owns the database whether maintained on premises or hosted environment.	M		

**Appendix B Vendor Self Assessment**

	DAting	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	4.15	Administration will use a Web Based application to interact with database, dashboards and reporting tools.	D		
	4.16	Database will automatically import new and change credential records from PPA's current and or future permit management system.	M		
Grace Periods	4.17	The PARCS shall allow configurable grace periods for the following:			
	4.17.01	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.	M		
	4.17.02	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.	M		
	4.17.03	Between the conclusion of an event and the exit from a facility, to give customers 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.	M		

**5.00 Facility Management Software**

	GENERAL	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	5.01	The PARCS shall include a real-time Facility Management Software system that shall be designated as the FMS.	M		
	5.02	The FMS shall have the capability to work in Server / Client architecture.	D		
	5.03	The FMS shall support web access at least, but not limited to the following modules:			
	5.03.01	Remote control of open/close gates, hold gate up, validate tickets or send a new rate to a station with a transient customer requiring assistance.	M		
	5.03.02	Card holder management. Grant individuals with permitted login credentials to manage their own card holders or any card holders associated with their privileges.	M		
	5.03.03	Visitor management. Grant individuals with permitted login credentials to manage their own visitors or any visitors associated with their privileges. The system will support invitations to visitor either by license plate or pin code. (If supported by site hardware)	M		
	5.03.04	On-line web validations. Grant individuals with permitted login credentials to validate their own visitors parking ticket or any visitors associated with their privileges.	M		
	5.04	FMS Clients can be added to the PARCS to support real- time monitoring & control from multiple locations.	M		
	5.05	The PARCS shall be able to support an unlimited number of FMS clients irregardless of their location on the network.	M		
	5.06	The FMS shall have the capability to control multiple parking lots from the same workstation.	M		

**Appendix B Vendor Self Assessment**

Appendix B Vendor Self Assessment						
	Req #	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments	
SYSTEM MONITORING	DEVICE STATUS	5.07	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:			
		5.07.01	Lane Status: open or closed.	M		
		5.07.02	Device status: active or out of service.	M		
		5.07.03	Door status: open or closed.	M		
		5.07.04	Gate Failure.	M		
		5.07.05	Gate up.	M		
		5.07.06	Low ticket/ Out of ticket condition.	M		
		5.07.07	Jammed ticket.	M		
		5.07.08	Illegal entry - reverse direction through lane.	M		
		5.07.09	Illegal exit - reverse direction through lane.	M		
		5.07.10	Stolen ticket.	M		
		5.07.11	Back-out.	M		
		5.07.12	Low receipt / Out of receipt condition.	M		
		5.07.13	Nested parker violation.	D		
		5.07.14	Stuck credit card.	D		
	5.07.15	Barrier gate alert, immediate notification if gate arm knocked off, forced up, broken or otherwise not funtional.	M			
SYSTEM MONITORING	TRANSACTION COUNTS	5.08	Each time a vehicle pass event occurs, the FMS shall increment or decrement a count (specific to the transaction type), in order for the FMS to provide accurate data.	M		
		5.09	All entry and exit station transaction counts shall appear in lane activity reports and ticket inventory/status reports.	M		
		5.10	<p>The system shall provide a tool to assist the operator with remote vending of gates. The purpose of the tool is to ensure that all remote gate vends are tied properly to the counting system. For example – if the exit station is not able to process a transient ticket and the operator needs to vend the gate, it will be done in such a manner that the gate vend transaction will be tied to that specific transient, which will ensure that the transient counts get updated accordingly. The system must allow differentiation between the type of customers such as transients, card holders, guests and reservations. The same method should apply for registered card holders, guest and reservations.</p> <p>The tool will provide a snapshot to the operator of all data related to the credential / ticket / reservation used by a customer requiring assistance at the remote station.</p> <p>All gate vends shall prompt the operator to input the reason for the gate vend, which can then be tracked in an audit report.</p>	D		
SYSTEM MONITORING		5.11	The alarm function shall allow the user to select which events to alarm.	M		
		5.12	Alerts can be displayed on a workstation or sent to an authorized user via email notification.	M		



**Appendix B Vendor Self Assessment**

Appendix B Vendor Self Assessment					
	ing		Priority	Capability	Vendor Self-Assessment & Comments
SYSTEM ALERTS & EVENT LOGS		<b>Description of Requirement</b>			
	5.13	Abnormal status conditions shall be flashed on monitor(s) and accompanied with an audible alarm	D		
	5.14	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).	D		
	5.15	Acknowledgement of alarm condition shall be able to be performed at any workstation with access to FMS.	M		
	5.16	It shall not be necessary to acknowledge alarm condition at every workstation.	M		
	5.17	The FMS shall record abnormal status condition of alarm condition by time.	M		
	5.18	Authorized users shall see and be able to manage alarms.	M		
	5.19	Alarms shall be selectable as visual, email, or both.	M		
	5.20	The FMS must record all system events, which can be viewed or printed.	M		
	5.21	The FMS must record the specific information and details for changes to system configurations including type of change, date/time, and user ID.	M		
5.22	The FMS must have the ability to sort events by activity type and/or device ID.	M			
GENERAL FUNCTIONALITY	5.23	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.	M		
	5.24	The rate structures shall be available to be utilized by the following:			
	05.24.01	<u>Transient customers</u> : Rate structure is assigned to regular transient parking tickets.	M		
	05.24.02	<u>Discount Validations</u> : Validated parking ticket that is assigned to a different rate structure than the default rate.	M		
	05.24.03	<u>Equipment selection</u> : Transient parkers entering the lot through specific entry lanes, shall be associated to a different assigned rate structure for that specific lane.	D		
	05.24.04	<u>Registered passes</u> : A temporarily guest that has an access media to the lot. Upon exit the guest will be charged according to the associated weekly rate structure.	M		
PAYMENT METHODS	5.25	The PARCS shall be able to handle the following payment methods:			
	5.25.01	Banknotes and coins.	M		
	5.25.02	Credit/debit bankcards (including contactless, mag stripe, chip and pin).	M		
	5.25.03	Value payment cards.	D		
	5.25.04	Mobile "Pay-by-Phone" Payment	M		
	5.25.05	Credit Card-on-File	D		
	5.25.06	Near Field Communication (NFC) - ex: Apple Pay / Android Pay	D		
5.26	The FMS shall allow pay-per-use, flat-rate and incremental rate structures.	M			
5.27	The FMS shall allow for the following flexible rate structures:				
5.27.01	Set by credential	M			
5.27.02	Set by parking product	M			
5.27.03	Set by parking facility	M			

**Appendix B Vendor Self Assessment**

		<b>Description of Requirement</b>	<b>Priority</b>	<b>Capability</b>	<b>Vendor Self-Assessment &amp; Comments</b>	
REVENUE MANAGEMENT	ing  RATE STRUCTURES	5.27.04	Set by area of the parking facility	M		
		5.27.05	Set by time of day, day of week	M		
		5.27.06	Daily rate	M		
		5.27.07	Weekly rate	M		
		5.27.08	Monthly rate	M		
		5.28	All rate structures MUST be configurable by the parking operator without the need for a service call or programmer to modify.	M		
		5.29	The FMS shall allow an unlimited number of rates.	D		
		5.30	The FMS shall provide automatic adjustment for daylight savings time and leap year in fee calculations.	M		
		5.31	The FMS shall allow for 24-hour maximum rates	M		
		5.32	Provide a configurable Grace Period that has a zero (0) amount 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 transaction reports.	M		
	5.33	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.	M			
	MANUAL FEE MANAGEMENT	5.34	The FMS shall allow the following exception transactions occurring at Exit Stations to be processed at a PARCS workstation and records each exception type uniquely:			
		5.34.01	Unreadable entry media	M		
		5.34.02	Unreadable proximity cards	M		
		5.34.03	Swapped tickets	M		
		5.34.04	Stolen tickets	M		
		5.34.05	Unreadable validations	M		
		5.34.06	Lost prepaid tickets	M		
		5.35	Be capable to locating a customer's entry date/time at all exit lanes via LPR system, when license plate is not matched to the parking ticket.	D		
5.36		Allows customer service personnel to find an entry date based on the LPR data and/or by entry media number.	D			
5.37		Once the entry date is found the FMS automatically computes the parking fee, operator can send the payment to the exit station display.	M			
5.38		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.	M			
5.39	After successful completion of the transaction, the entry media is automatically marked as 'closed' in the system.	M				
5.40	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, or print a copy of the entry ticket to the customer.	M				
5.41	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.	M				

**Appendix B Vendor Self Assessment**

	ing	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
		5.42	Records the different exception transaction types in the transaction database so that the type of exception transaction is displayed in the FMS reports.	M	
		5.43	Provides reports and accountability features per cashier ID on a shift basis.	M	
	EXCEPTION TRANSACTIONS	5.44	The FMS shall support the following exception transactions:		
		5.44.01	Lost tickets	M	
		5.44.02	Stolen tickets	M	
		5.44.03	Back-out tickets	M	
		5.44.04	Unreadable entry media	M	
		5.44.05	Unreadable POF prepaid ticket	M	
		5.44.06	Swapped tickets	M	
		5.44.07	Insufficient funds transactions	M	
		5.44.08	Towed or impounded vehicles	N/A	
		5.45	Each exception transaction type shall be recorded as a unique type in the FMS so that data by each exception transaction type is available.	M	
	5.46	The FMS shall provide the capability to report on all exception transaction data for a selectable time by transaction type and device ID.	M		
	DISCOUNT GENERATOR SOFTWARE	5.47	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.	M	
		5.48	The FMS shall allow approved users to create barcoded Promotional Discounts that can be printed, published in 3rd party materials, and/or transferred to an approved website.	D	
		5.48.01	Promotional discounts can be printed by the operator or transferred to an approved website.	D	
		5.48.02	Both the validation and ticket shall be voided after exit is complete.	M	
		5.49	If a transaction is cancelled in the exit lane, the ticket or a copy of the entry ticket shall be issued to the user and shall not be voided.	M	
		5.49.01	After a successful exit, the validation amount and type is recorded in the PARCS database for reporting purposes.	M	
		5.49.02	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.	M	
	5.49.03	The FMS shall have the ability to offer and track multiple promotions simultaneously.	M		
	ALITY	5.50	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.	M	
		5.50.01	Validations can be generated by different users or by the permitted user only.	M	
		5.50.02	Restrict the validations to certain dates & times or to particular days of the week.	M	

**Appendix B Vendor Self Assessment**

		<b>Description of Requirement</b>	<b>Priority</b>	<b>Capability</b>	<b>Vendor Self-Assessment &amp; Comments</b>	
<b>VALIDATIONS</b>	<b>GENERAL FUNCTIONING</b>	5.50.03	All parking devices in the lot shall recognize the validation, calculate the new parking fee and update the balance accordingly.	M		
	5.51	Validations shall include the following:				
	5.51.01	Validations Encoded on Issued Paper Ticket – shall be processed at Exit Stations, Cashier Station or Pay-on-Foot Stations.	M			
	5.51.02	QR code validations processed at Exit Station (either on paper or smart phone)	M			
	5.52	The validation module shall be capable of supporting flat rate, discount rate, percentage discount, hourly discount, change of fee table validations.	M			
	5.53	The validation module shall permit the operator to change a ticket to allow multiple entries and exits by using that ticket.	D			
	5.54	The FMS shall be capable of supporting the following discounts:				
	5.54.01	Full discount with no maximum	M			
	5.54.02	Full discount with selectable maximums	M			
	5.54.03	Fee discount allowing a specified monetary amount to be subtracted from various portions of fee calculations (ex: surcharge fees allowing a fixed fee that is charged in addition to the parking fee).	M			
	5.55	Discounts can use different rate structures to compute the parking fee.	M			
	5.56	Discounts can be issued with starting and/or ending expiration dates.	M			
	5.57	Discounts can be valid based on time and location restrictions.	M			
	5.58	Each discount shall have a unique identification number to track activity and discount values processed.	M			
	5.59	PARCS shall accept, at a minimum, the following discount types at all PARCS point of sale devices:				
	5.59.01	Encoded on dispensed paper tickets.	M			
	5.59.02	Validation label applied on ticket.	M			
	5.59.03	Chaser Ticket option if needed at a later date.	M			
	5.59.04	Barcode and QR code printed on paper or presented on a smart phone.	M			
	5.59.05	Manually processed discounts using a key or code on the Cashier Stations.	M			
	5.59.06	Online web validations where a discount is applied via a workstation 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.	M			
	5.60	The validation module shall support the following validation methods:				
	5.60.01	<u>Discount stickers</u> - a barcoded, uniquely serialized label printed on standard label sheets using a standard color laser printer, with sticker placed on the spitter ticket	D			
	5.60.02	<u>Chaser Tickets</u> - shall be pre-printed from the management software and used at pay-on-foot or exit station.	M			
	5.60.03	Pre-paid validations	M			
	5.60.04	<u>Off-line validations</u> - generated from an off-line validator	M			
	5.60.05	<u>On-line validations</u> - generated from an on-line validator	M			
5.60.06	<u>On-line web validations</u> - ability to validate spitter ticket through a web portal that connects in real-time to the FMS.	M				

### Appendix B Vendor Self Assessment

Appendix B Vendor Self Assessment					
ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
MONITORING & CONTROL	5.60.07	Mobile device validations (iOS and Android) - allows scanning spitter ticket with smart device and applying a validation through an app that is linked to FMS in live-time.	M		
	5.60.08	Pre-paid vouchers.	M		
	5.61	The validation module shall have the following monitoring & control capabilities:			
	5.61.01	The ability to modify or terminate existing validations at any time.	M		
	5.61.02	Support the production of validation tickets directly from the FMS.	M		
	5.61.03	Allow the encoding of various values of coupons.	M		
	5.61.04	Shall support a minimum of 10,000 validation accounts with unlimited validations associated with each account.	D		
	5.61.05	The ability to generate and print validation reports from remote FMS work stations.	M		
	5.61.06	Shall support a web interface for PPA departments allowing them to validate parking tickets without the need for chaser tickets, stamps or punches.	M		
	5.61.07	Online web validations shall have the ability to assign and track a "declining balance" per account, allowing departments to validate until a certain low threshold is reached. Once this operator-defined threshold is met, an email is automatically sent to operator and department head informing them of the low threshold alert. Once the declining balance reaches "zero", no additional validations are permitted within that account until the account is replenished.	D		
5.61.08	Support a variety of online and off-line PARCS devices for the real-time validation of parking tickets.	M			
QUALITY	5.62	Securely activate and personalize an Access Credential.	M		
	5.63	Handles an unlimited number of tag holders per local parking facility.	D		
	5.64	Allow authorized users to create accounts (companies & Sub-companies) and activate/deactivate credentials.	M		
	5.65	Allow account settings to be changed for a credential.	M		
	5.66	Retain credential account and activity history after the credential is deactivated and re-issued to a different user.	M		
	5.67	Shall be capable to distinguish between different parking zones and apply restrictions accordingly.	M		
	5.68	Provide ability to have master account (companies), sub-accounts (sub-companies).	M		
	5.69	Set access restrictions by facility, master account, sub-account, and individual credential for time of day and day of week parameters.	M		
	5.70	Assign pass back setting by master account (companies), sub-accounts (sub-companies), individual credential, and by facility.	M		
	5.71	Provide the ability to reset the access credential status for individual access credentials, by group and by facility.	M		
	5.72	Be able to check credential validity at the time of entry.	M		
	5.73	Record all card usage including the lane ID, entry/exit date/time, credential number, and passback status.	M		
5.74	Generate a record of all activity related to a master account or an individual credential in the FMS database for a selectable time.	M			

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Appendix B Vendor Self Assessment						
ACCESS CONTROL	GENERAL FUNCTIONING	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
		5.75	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.	M		
5.76	The FMS shall have, the following data input fields available for each credential account:					
5.76.01	Unique credential number	M				
5.76.02	Customer ID number	M				
5.76.03	Account number	M				
5.76.04	Credential holder name	M				
5.76.05	Credential validity period	M				
5.76.06	Credential holder organization	M				
5.76.07	Credential holder department	D				
5.76.08	Credential holder telephone number	M				
5.76.09	Credential holder email address	M				
5.76.10	Parking privilege code access profiles	M				
5.76.11	Credential fee/rate	M				
5.76.12	License plate number	M				
5.76.13	Driver's license number	D				
5.76.14	Vehicle make/model	M				
5.77	Capable of setting different access privileges for an entire group or for an individual tag holder.	M				
5.78	Able to distinguish between different parking zones and apply restrictions accordingly.	M				
5.79	Ability to apply programming changes to each group, sub-group, facility or globally.	M				
Daily Tag Management	5.80	<u>New Tag holder</u> : Record Tag holder details such as identification details, tag number, monthly fee, expiration date and group or sub-group association.	M			
	5.81	<u>Renew Tag</u> : 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.	M			
	5.82	<u>Block a Tag</u> : Change the status of a tag to "blocked" without altering its associated tag details.	M			
	5.83	<u>Unblock a Tag</u> : Change the status of a blocked tag to "normal" without altering its associated tag details	M			
	5.84	<u>Cancel a Tag</u> : Cancellation of a tag in the system shall cancel the tag but not the tag history.	M			
	5.85	Ability 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.	M			
5.86	Ability to assign each tag with a monetary amount. Once the amount has been exhausted, the tag shall not be accepted at the entry/exit terminals.	M				
IONS	5.87	<u>Anti-Pass back</u> : In the event a tag is "passed back" to allow an additional vehicle entry into the facility the tag shall be denied access.	M			
	5.88	<u>Loop Presence</u> : Prevents a pedestrian to present a tag without a vehicle.	M			

**Appendix B Vendor Self Assessment**

		#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
TAG RESTRICTING		5.89	<u>Access restriction</u> : Prevents the tag holder to pass through certain lanes	M		
		5.90	<u>Company Full</u> : Prevents the tag holder from gaining access to a nested area or the garage when the total available parking slots assigned to the particular tag holder group has been occupied.	M		
		5.91	Granting facility access by particular tag holder group who have been assigned special pricelist or when certain rules apply.	M		

**6.00 Hotel Guest Parking Module**

		#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
HOTEL GUEST PARKING		6.01	The FMS shall have a required integrated Hotel Parking Module for hotels that offer garage usage privileges.	M		
		6.02	The FMS shall generate the required transactional data for ensuring guest room billing for provided garage services.	M		
		6.03	THE FMS shall be able to extend beyond the time of checkout, the customer's exit time from the parking facility.	M		
		6.04	The FMS shall be able to generate reports detailing garage occupancy statistics broken down by guest room, entry/exit traffic data, validated hotel guest as well as duration of stay statistics.	M		
		6.05	The FMS shall support the following types of Hotel parking operations:			
		6.05.01	Both modes in this section that utilize guest room key for access, must support utilization of MIFARE room keys, used by the following (but not limited to) hotel locking system manufactures – SAFLOK, VINGCARD and ONITY.	M		
		6.05.02	<u>Hotel Integrated</u> : Adding a parking charge to the guest folio and transmit the relevant data to the parking system by an interface between the parking system and the hotel's Property Management System (PMS).	D		
		6.05.03	<u>Non-Integrated</u> : Adding a parking charge to the guest folio, then swipe the room key in an encoding device to add parking access. Upon exit or re-entry into the garage, the guest shall insert or present their room-key to a card reader in the lane terminal to grant access. The transaction and room key information shall then be logged in the parking system.	D		
	6.05.04	<u>Ticket-Based</u> : Adding a parking charge to the guest folio, then scan the entry ticket in an encoding device to change the ticket privileges to allow multiple in & out privileges, which expires on the checkout date. The transaction and ticket information shall then be logged in the parking management system.	D			

**7.00 Valet Parking Module**

		#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
PARKING		7.01	Scalable valet parking management options with integration into the FMS.	M		
		7.02	Ability to integrate into 3rd party valet management systems.	M		
		7.03	The Valet Cashier Station shall be able to process the valet customers' cash, bankcards and validation payments.	D		

**Appendix B Vendor Self Assessment**

<b>Appendix B Vendor Self Assessment</b>					
VALET PAIING	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	7.04	The Valet Cashier Station shall have all other functionality as the exit or central cashier stations.	D		
	7.05	All data from the valet devices are reported to the database of the FMS in real-time and shall be included in all relevant PARCS reports.	D		
	7.06	Three-part Valet Tickets generated by Valet enabled stations, which include sequential serial numbers for use at valet podium station, cashier station and ticket dispenser.	D		

**8.00 External System Integrations**

<b>8.00 External System Integrations</b>					
GENERAL FUNCTIONALITY	8.01	The FMS shall provide tools to interface to external platforms and systems.	M		
	8.02	System APIs shall provide real-time XML interfaces. Fields and data structures shall comply with a specified schema.	M		
	8.03	APIs shall support security authentication of all clients invoking APIs so that each individual client is identified for each API call.	M		
	8.04	The FMS shall allow for logging all requests and responses to and from the APIs.	M		
	8.05	All interfaces where possible shall be upon RESTful compliant Web Services technology.	D		
INTEGRATION TYPES	8.06	<u>Pre-Paid Web Reservations</u> : The FMS shall support interfacing to 3rd Party on-line pre-paid reservation system. (Parkmobile, Parking Panda, SpotHero, etc.).	M		
	8.07	<u>Mobile "Pay-by-Phone" Payment</u> : The FMS shall support interfacing to (but not limited to) the Pay By Phone mobile "pay-by-phone" payment system.	M		
	8.08	<u>Accounting &amp; Revenue Control</u> : The FMS shall support interfacing to (but not limited to) Integrepark / PARIS accounts receivable system, and the accounts receivable system will integrate with Microsoft Dynamics GP, which is used by the PPA corporate office.	M		
	8.09	<u>Hotel Systems</u> : The FMS shall interface to any future hotel PMS system.	M		

**9.00 Reporting**

G	9.01	Provide full, real-time reporting (revenue, system, ticket, occupancy & traffic, vehicle identification, validation, company/department, guest, hotel, and statistics), with flexibility in content, formatting, and timing of the pertinent operational and management reports.	M		
	9.02	Reports can be scheduled to run and emailed to specified users.	M		
	9.03	Reports can be scheduled to run automatically. For example, on the first day of each quarter, weekly, etc.	M		
	9.04	Reports (manual and automated) can be run at any time and not impact the system performance.	M		
	9.05	Reports can be exported to Microsoft Word, Excel, PDF etc.	M		
	9.06	The Reports Module shall be able to provide ad hoc reporting such as Crystal Reports Software.	M		



## Appendix B Vendor Self Assessment

Appendix B Vendor Self Assessment					
REPORTING	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	9.07	The database of the FMS shall contain sufficient 'Views' to support external reporting tools such as Crystal Reports.	M		
	9.08	Queries can minimally be run for transactions by day/date/time (or time range), station, cashier/user ID, payment type, amount or amount range, access card number or by exception type.	M		
	9.09	Query results are sortable.	M		
	9.10	Vendor to provide a complete list of canned reports and samples of these reports upon request, i.e., MISSING TICKET REPORT.	M		
	9.11	System shall create daily financial reports.	M		
	9.12	System will provide transaction details per day/week/month. (Detail and Summary formats)	M		
	9.13	Administrators can generate original reports.	M		
	9.14	System shall offer audit trail information that can be reported.	M		
	9.15	Vendor will provide a data dictionary outlining tables, fields, views and linking properties.	D		

### 10.00 Credit Card Processing & PA/PCI-DSS Documentation

DOCUMENTATION	10.01	Data Flow Diagram.	M		
	10.02	Transaction Diagram.	M		
	10.03	PA-DSS Certificate showing expiration date.	M		
	10.04	PA-DSS Attestation of Compliance.	M		
	10.05	PA-DSS Attestation of Compliance Report.	M		
10.06	Vendor will provide continued PA-DSS documentation with each passing expiration date.	M			
10.07	PCI data shall NOT reside on any PPA server.	M			
10.08	Vendor is listed on the PCI Security Standards Council list for PA-DSS Certification.	M			
10.09	The credit card system (CCS) shall provide online real-time authorization for bankcard payments made at all of the garage's point of sale devices.	M			
10.10	The PARCS and/or the CCS shall not retain any bank card sensitive CHD (Card Holder Data) in accordance with PCI Security Standards guidelines for PCI certified applications.	M			
10.11	The CCS 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.	M			
10.12	The PARCS equipment shall be integrated with the CCS, and shall comply with the PCI security standard council regulations for payment applications PA-DSS 3.1 or later to process and handle credit card data in effect at the time of the installation.	M			
10.13	The CCS shall support acceptance (based on customer determination) of all bankcard types (i.e. credit, debit and prepaid) and the following card brands - American Express, Discover, MasterCard, Visa and Diners Club for payment.	M			
10.14	For all approved bankcard authorization requests, the PARCS shall be capable of providing a bankcard transaction receipt.	M			

**Appendix B Vendor Self Assessment**

Appendix B Vendor Self Assessment						
	ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
		10.15	The CCS shall provide online real-time authorization for bankcard payments made at all of the garage's point of sale devices.	M		
		10.16	For payments, bankcard data shall be read and transmitted to the CCS /acquirer ("clearinghouse"). The clearinghouse shall provide authorization for all bankcard purchase transaction request.	M		
	EMV CREDIT CARD PROCESSING SYSTEM	10.17	The CCS shall be installed either on a windows 7 operating system or windows server 2008/2012, and shall be located locally at the PPA Main Office. Credit card processing between gateway and service provider / clearing house shall be through a WAN (Wide Area Network) connection, utilizing secured TCP/IP protocol.	M		
		10.18	Bankcard processing time shall be no longer than 8 seconds for EMV with no-pin entry transactions for most common major credit cards, regardless the amount of equipment that resides on the parking system network.	M		
		10.19	The following types of bankcards/devices shall be supported as an accepted method of payment media at all point of sale devices for parking access and payment (If supporting hardware is installed), as follows:	M		
		10.19.01	Magnetic-stripe bankcards.	M		
		10.19.02	EMV chip bankcards.	M		
		10.19.03	Contactless bankcards.	D		
		10.19.04	NFC-based payment from smart phones.	M		
		10.20	The EMV terminals shall provide end-to-end encryption (E2EE); however point-to-point encryption (P2PE) shall also be accepted.	M		
		COMMUNICATIONS	10.21	The CCS shall provide communication with credit card processing service provider / clearinghouse for the purposes of obtaining authorization to complete a transaction with a bankcard.	M	
	10.22		The CCS shall be able to simultaneously process bankcard transactions from all PARCS devices to the clearinghouse.	M		
	10.23		The CCS shall support the logging, storage, backup, and retrieval of information regarding all data transmissions, including timing of the transmission, data transmitted, and status of the transmission, for both individual transactions and entire files, such as settlement files.	M		
	10.24		The future ability for the garage operator to change clearinghouses, shall be supported.	M		
	10.25		The PARCS shall include a notification method of communication failures at any point in the data transmission from device to bankcard server to clearinghouse.	M		
	FUNDS SETTLEMENT	10.26	The CCS shall generate on a daily basis an electronic settlement data file and transmission with the appropriate financial institution, or have the service provider / processor settle the transactions for the merchant account.	M		
		10.27	The PARCS shall provide report data that displays:	M		
		10.27.01	Bankcard revenue by card type, amount, individual parking device and parking facility and in total for a selectable time.	M		
		10.27.02	The data shall be able to be displayed by total for each card brand and grand total of all brand subtotals.	M		

**Appendix B Vendor Self Assessment**

		ing		Priority	Capability	Vendor Self-Assessment & Comments
		#	Description of Requirement			
		<b>11.00</b>	<b>Hardware Specifications</b>			
ENTRY STATION	GENERAL FUNCTIONALITY	11.01	The Entry Lane Station shall be a fully automated ticket dispenser and access reader and authorization verifier that controls entries into the parking facility.	M		
		11.02	Push-button Issues a bar-coded parking ticket to each transient customer.	M		
		11.03	No pre-printed bar-coded tickets shall be used.	M		
		11.04	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.	M		
		11.05	Print license plate number on ticket when entry lane includes LPR.	M		
		11.06	The ticket's barcoded data shall be sent to and saved by the FMS.	M		
		11.07	In rush-hour or peak mode, automatically issues a ticket upon vehicle arrival without the customer having to push the ticket issuing button.	D		
		11.08	Supports roll paper tickets with fan-folded ticket option.	D		
		11.09	Grants entry into the facility to monthlies, hotel & event guests and prepaid transients that present valid transaction authorizations from:	M		
		11.09.01	Proximity Card or Tagmaster	M		
		11.09.02	LPR pre or post-capture	M		
		11.09.03	QR/barcoded passes	M		
		11.09.04	Hotel Mifare room keys	M		
		11.10	Automatically sends all transaction data to the central controller and to the FMS for generating reports.	M		
		11.11	Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices.	M		
		11.12	Incorporates VoIP intercom in device that can be seamlessly integrated into parking operator's remote command center	M		
		11.13	Switches to stand-alone mode when network communication is lost:	M		
	11.13.01	Have sufficient local memory storage to cache at least 2,000 transactions.	D			
	11.13.02	Bankcard processing shall be disabled.	M			
	11.13.03	Automatically uploads all transaction data to the FMS and the central controller once communication is restored.	M			
	11.14	Alerts for all operational exception conditions, including "Ticket Stock Low" and "Ticket Stock Out" conditions.	M			
11.15	Network communication via RS-485 or TCP/IP Ethernet	M				
11.16	Integrated PCI Compliant PA-DSS Credit card processing software connection.	M				
CUSTOMER INTERFACE	11.17	Illuminated ticket request push button.	M			
	11.18	Hi-resolution 4.3" color TFT display for customer guidance that is visible in all lighting conditions. Supports the usage of pictographs, custom logos and text. Should include touchscreen capabilities for future use.	D			
	11.19	VoIP intercom sub-station with call button.	M			
	11.20	Visual customer instructions.	M			
	11.21	Integrated voice annunciator which plays messages in accordance to the different events occurring in the area. The parking operator shall have the ability to customize the voice messages.	D			

**Appendix B Vendor Self Assessment**

		ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
EXIT STATION	GENERAL FUNCTIONALITY		11.22	QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.	M		
			11.23	Accepts, validated roll or fanfold barcoded paper parking tickets to grant exit from the facility, if ticket presentation is within the programmed "grace time" for exit after payment.	M		
			11.24	Performs parking fee calculations based upon rate structure.	M		
			11.25	Accepts all major credit/debit bankcards for payment.	M		
			11.26	Processes discount validations for fee reduction purposes.	M		
			11.27	Sends all transaction data to the central controller and to the FMS for generating reports.	M		
			11.28	Supports EMV Chip credit cards for payment.	M		
			11.29	Prints customer receipts upon request once bankcard payment has been processed.	M		
			11.30	Grants exit from the facility to monthlies using proximity cards, tagmaster, hotel & event guests and prepaid transients that present valid validated authorization from QR/barcode scanner.	M		
			11.31	QR/Bar-coded validations.	M		
			11.32	Hotel Room Keys.	M		
			11.33	LPR matching recognition.	M		
			11.34	Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices.	M		
			11.35	Incorporates VoIP intercom in device that can be seamlessly integrated into parking operator's remote command center.	M		
			11.36	Switches to stand-alone mode when network communication is lost:	M		
			11.36.01	Have sufficient local memory storage to cache at least 2,000 transactions.	D		
			11.36.02	Bankcard processing shall be disabled.	M		
			11.36.03	Automatically uploads all transaction data to the FMS and the central controller once communication is restored.	M		
			11.37	Alerts for all operational exception conditions, including "Receipt Stock Low" and "Receipt Stock Out" conditions.	M		
			11.38	Network communication via RS-485 or TCPIP Ethernet.	M		
	11.39	Integrated PCI Compliant PA-DSS Credit card processing software connection.	M				
	CUSTOMER INTERFACE		11.40	Illuminated ticket request push button.	M		
		11.41	Hi-resolution 4.3" color TFT display for customer guidance that is visible in all lighting conditions. Supports the usage of pictographs, custom logos and text. Should include touchscreen capabilities for future use.	D			
		11.42	VoIP intercom sub-station with call button.	M			
		11.43	Visual customer instructions.	M			
		11.44	Integrated voice annunciator which plays messages in accordance to the different events occurring in the area. The parking operator shall have the ability to customize the voice messages.	D			
		11.45	EMV Chip dip-style credit card reader for payment.	M			
		11.46	QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.	M			
		11.47	Shall accept, read and validate barcode encoded roll or fanfold paper parking tickets for use at an exit station.	M			

**Appendix B Vendor Self Assessment**

		<b>Priority</b>	<b>Capability</b>	<b>Vendor Self-Assessment &amp; Comments</b>		
PAY-ON-FOOT (POF) STATION	GENERAL FUNCTIONALITY	<b>#</b>	<b>Description of Requirement</b>			
		11.48	Performs parking fee calculations based upon rate structure.	M		
		11.49	Shall process discount validations for fee reduction purposes including chaser tickets.	M		
		11.50	Accepts all major credit/debit bankcards for payment.	M		
		11.51	Supports EMV Chip credit cards for payment.	M		
		11.52	Accepts value card and monthly card holder payments.	D		
		11.53	Supports access card payments via proximity card.	D		
		11.54	Accepts banknote cash payments and includes:	M		
		11.54.01	A bill acceptor unit, which shall read, verify and store bills. Bills shall be read in any direction of insertion.	M		
		11.54.02	A minimum 600 bill storage cassette.	D		
		11.54.03	A bill dispenser unit to dispense bills for change in a minimum of 2 different denominations.	D		
		11.54.04	Cash payment related alerts and transaction shall be monitored by the FMS.	M		
		11.55	No coin will be accepted or dispensed.	M		
		11.56	Incorporates VoIP intercom in device that can be seamlessly integrated into parking operator's remote command center.	M		
		11.57	Switches to stand-alone mode when network communication is lost:	M		
		11.57.01	Have sufficient local memory storage to cache at least 2,000 transactions.	D		
		11.57.02	Bankcard processing shall be disabled.	M		
		11.57.03	Automatically uploads all transaction data to the FMS and the central controller once communication is restored.	M		
		11.58	Alerts for all operational exception conditions, including "Receipt Stock Low" and "Receipt Stock Out" conditions.	M		
		11.59	Network communication via RS-485 or TCP/IP Ethernet.	M		
11.60	Integrated PCI Compliant PA-DSS Credit card processing software connection.	M				
11.61	Multi-language customer guidance.	D				
11.62	Illuminated front panel.	M				
11.63	Hi-resolutuion 4.3" color TFT display for customer guidance that is visible in all lighting conditions. Supports the usage of pictographs, custom logos and text. Should include touchscreen capabilities for future use.	D				
11.64	VoIP intercom sub-station with call button.	M				
11.65	Visual customer instructions.	M				
11.66	Integrated voice annunciator which plays messages in accordance to the different events occurring at the station. The parking operator shall have the ability to customize the voice messages.	D				
11.67	EMV Chip dip-style credit card reader for payment.	M				
11.68	QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.	M				
11.69	Illuminated user selection buttons for Lost Ticket, Language Select, Receipt Request and Cancel Transaction.	D				
11.70	Single pocket for receipt and change.	M				
11.71	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 lane that doesn't include a standard entry or exit station.	M				

**Appendix B Vendor Self Assessment**

		#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
ACCESS CARD READERS	GENERAL FUNCTIONALITY	11.72	When an LPR camera is connected to the access card reader, the vehicle tag no. shall be sent to the management software along with the transaction data.	M		
		11.73	Grants entries and exits into and out of the parking facility to customers that present valid authorizations from:	M		
		11.73.01	Proximity Card & Tagmaster.	M		
		11.73.02	Encoded QR/Barcodes	M		
		11.73.03	Hotel Mifare room keys.	M		
		11.73.04	LPR matching recognition.	M		
		11.73.05	PPA Employee ID Card.	NA		
		11.74	Supports barrier gates, vehicle presence loops, lane status signs and other I/O devices.	M		
		11.75	Incorporates VoIP intercom in device that can be seamlessly integrated into parking operator's remote command center.	M		
		11.76	Automatically sends all transaction data to the central controller and to the FMS. When an LPR camera is connected to the station the vehicle tag number shall also be sent.	M		
		11.77	Switches to stand-alone mode when network communication is lost:	M		
		11.77.01	Have sufficient local memory storage to cache at least 2,000 transactions.	D		
		11.77.02	Automatically uploads all transaction data to the FMS and the central controller once communication is restored.	M		
		11.78	Network communication via RS-485 or TCP/IP Ethernet.	M		
	11.79	Hi-resolution 4.3" color TFT display for customer guidance that is visible in all lighting conditions. Supports the usage of pictographs, custom logos and text. Should include touchscreen capabilities for future use.	D			
	CUSTOMER I/F	11.80	VoIP intercom sub-station with call button.	M		
		11.81	Visual customer instructions.	M		
		11.82	QR/Bar-code scanner to read paper, plastic cards, or smartphone displays.	M		
		11.83	Barrier open/close time 1.5-3.5 seconds, based on boom length of 10 to 14 feet. Speed is field-selectable.	D		
		11.84	Arm Options:			
11.84.01		LED Lit straight combination aluminum-PVC or complete aluminum, with high-reflective red/white strip tape and bumper base.	D			
11.84.02		LED Lit ADA-articulated combination aluminum-PVC or complete aluminum, with high-reflective red/white strip tape and bumper base.	D			
11.84.03		LED Lit non-ADA-Articulated combination aluminum-PVC or complete aluminum, with high-reflective red/white strip tape and bumper base.	D			
11.84.04		Breakaway arm mount flange.	D			
11.84.05		Optional wood gate arm attachment plate.	D			
11.85	Built-in position sensors (no limit switches) providing precise arm position status and a self-learning control unit to guarantee optimum braking and no boom arm bouncing, sagging or rotating out of position.	D				

**Appendix B Vendor Self Assessment**

<b>Appendix B Vendor Self Assessment</b>						
		<b>#</b>	<b>Description of Requirement</b>	<b>Priority</b>	<b>Capability</b>	<b>Vendor Self-Assessment &amp; Comments</b>
<b>BARRIER GATE</b>	<b>GENERAL FUNCTIONALITY</b>	11.86	Automatic reversing mechanism that stops gate arm movement if arm hits an object, and immediately reverses arm to the up position.	D		
		11.87	"Force Arm Down" feature that allows motor to counter-act the force of someone attempting to manually raise the gate arm.	D		
		11.88	Built-in alarm that sounds and sends notification to FMS when arm is hit or tampered with.	M		
		11.89	Build in adjustable timer for arm gate closing.	D		
		11.90	Field-configurable left or right-hand orientation.	D		
		11.91	Uninterrupted power supply, allowing barrier gate to run for up to 1000 cycles after AC power loss. Field configurable to fail open or secure when batteries deplete.	D		
		11.92	115VAC input power, 12VDC operation.	D		
		11.93	Operating temperature: -13F to 158F. No heater necessary.	D		
		11.94	White, zinc-plated powder-coated housing with locking access door, uniquely keyed.	D		
		11.95	Rated at 2 million cycles.	D		
		11.96	Smart controller providing the following:	D		
		11.96.01	Surge protection	D		
		11.96.02	4-plug-in sockets for vehicle loop detectors	D		
		11.96.03	RS-485 or TCP/IP communication	D		
		11.96.04	Two configurable user relays with (8) additional optional relay outputs.	D		
		11.96.05	LCD screen and PC Interface for easy troubleshooting and diagnostics.	D		
		11.97	Open Arm Command - momentary dry contact input	D		
		11.98	Close Arm Command - momentary dry contact input	D		
		11.990	Arm Up Output - Continuously dry contact output or 24VDC output.	D		
		11.100	Arm Lost Output - Continuously dry contact output or 24VDC output.	D		
				M		
<b>INTERCOM</b>	<b>GENERAL FUNCTIONALITY</b>	11.102	Vendor is to provide a VoIP intercom module in each noted entry lane, exit lane and POF that integrates seamlessly into the contractors remote command system.	M		
		11.103	VoIP intercom modules must include the following features:			
		11.103.01	Location - specific assignments	M		
		11.103.02	Ability to link an IP camera to intercom location, permitting Call Center representatives to view the closest camera feed at active intercom location.	D		
		11.103.03	Ability to forward VoIP intercoms to other VoIP extensions.	M		
		11.103.04	Ability to forward VoIP intercoms to landline.	M		
		11.103.05	Ability to queue calls based on priority locations and/or when calls are received.	D		
		11.103.06	Ability to utilize a ringdown program to include up to (5) different numbers / extensions.	D		
		11.103.07	Remote gate-vend option through intercom.	M		
		11.103.08	Full-duplex communication.	M		
11.103.09	Crystal clear audio w/background noise filtering.	M				
11.103.10	Field-configurable audio levels and auto-leveling feature.	M				

**Appendix B Vendor Self Assessment**

Appendix B Vendor Self Assessment					
ing	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
	<b>12.00</b>	<b>Project Execution</b>			
	12.01	The PARCS shall be installed by a manufacturer or certified dealer only, who shall coordinate all work with other contractors and trades.	M		
INSTALLATION	12.02	PARCS certified dealer must have experience being the lead installer / project manager on at least (5) installations of similar scope, size and schedule from current PARCS manufacturer.	M		
	12.03	All necessary conduit, raceways, pull boxes, standard boxes, (and any special boxes provided by the PARCS manufacturer), shall be installed by the manufacturer certified dealer only.	M		
	12.04	All necessary conduit, wiring, networking hardware and electrical circuits from facility point-of-entry to each facility lane.	M		
	12.05	All necessary modifications to concrete islands, curbs and foundations, based on contractor's drawings.	M		
	12.06	Installation of the PARCS equipment shall be coordinated with the installation of other related systems such as: Networking, Hotel PMS and CCTV video, switching and Intercoms.	M		
	12.07	Installation should be performed in such a way as to minimize any service disruptions to parking patrons. Vendor must be able to maintain existing PARCS and new PARCS simultaneously for a short period of time while new system is being installed. At no time will existing PARCS be completely shut down before new PARCS is fully-operational.	M		
	12.08	All equipment must be leveled and properly secured. If a gap exists between the equipment base and the ground due to leveling, those gaps must be grouted and/or sealed to provide a clean installation.	M		
	12.09	All wiring, conduits, junction boxes, circuits and connections must be clearly labeled to aid in future troubleshooting.	M		
	12.10	All vehicle detector loops must be re-cut and properly sealed. It is the vendor's responsibility to perform GPRS as needed on elevated post-tension slabs before cutting the loops. The vendor is required to route, clean and re-use any existing detector loop saw-cuts when possible.	M		
	12.11	Vendor will be required to set up all PARCS equipment at an off-site location for initial testing, programming and configuration before on-site installation. During this off-site testing, PPA representatives will visit the site and approve the testing, programming and configuration. Any costs associated with the off-site testing will be the responsibility of the vendor. Travel related expenses for PPA representatives will be the responsibility of the PPA.	M		
ESTING	12.12	The PARCS shall be completely tested to assure that the PARCS equipment, servers, gates and all components are connected and in working order.	M		
	12.13	The PARCS shall be pre-tested by contractor and certified to function in accordance with plans and specifications.	M		
	12.14	The PARCS shall be tested in presence of owner's representative.	M		



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Title	#	Description of Requirement	Priority	Capability	Vendor Self-Assessment & Comments
DOCUMENTATION	12.15	The Contractor shall provide the customer with (2) copies of the manufacturer's operation, installation and maintenance manuals include typical wiring diagrams for each of the installed products in both hardcopy and machine readable formats.	D		
	12.16	The Contractor shall provide the customer with (2) hardcopy sets and (1) electronic file in CAD format of As-Built Drawings including all plans, elevations, sections, details, and attachments that include detail equipment assemblies and dimensions, required clearances, and method of field assembly, components, and location and size of each field connection. It is the contractor's responsibility to retrieve the garages' site work schematics for the project and incorporate them in to the contractor's final as-built drawings set.	D		
	12.17	The Contractor shall provide the customer with (2) copies of any risers, layouts, and special wiring diagrams showing any changes to standard drawings, as required by the project.	D		
<b>13.00 Warranty, Maintenance &amp; Support</b>					
WARRANTY	13.01	The PARCS shall include a factory warranty that equipment is free from defects in design, material, manufacturing and operation. During this period, vendor will cover all parts & labor costs associated with any defects due to normal operations.	M		
	13.02	Factory warranty period shall be for 24 months from date of project completion / sign-off.	D		
	13.03	The installing PARCS vendor shall guarantee the equipment, wire, cable, and installation for 24 months from date of project completion / sign-off.	D		
	13.04	The installing PARCS vendor shall provide a quarterly preventive maintenance program on supplied hardware and software for the duration of the manufacturer warranty period. This includes software & firmware updates at no additional charge.	D		
	13.05	The PARCS Manufacturer shall guarantee availability of parts, for minimum of (7) years from date of project completion / sign-off.	M		
	13.06	Vendor shall provide an option for extended full parts & labor hardware coverage for years 3-7.	D		
EXTENDED COVERAGE	13.07	Vendor shall provide an option for extended full parts & labor software coverage for years 3-7. This shall include software & firmware updates at no additional charge.	D		
	13.08	Vendor shall provide an option for an extended preventive maintenance program for years 3-7.	D		
	13.09	Vendor shall provide a 24/7, 365 technical hardware and software support via phone, email and web portal.	M		
	13.10	Vendor must notify operator a minimum of 5 business days in advance of any scheduled service interruptions.	M		
	13.11	Vendor must guarantee an 4 hour response time to any service or technical requests.	M		

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Appendix B Vendor Self Assessment					
			<b>Priority</b>	<b>Capability</b>	
	<b>#</b>	<b>Description of Requirement</b>			<b>Vendor Self-Assessment &amp; Comments</b>
<b>SUPPORT</b>	13.12	Vendor must guarantee a 8 hour on-site response time to any service or technical request that requires on-site support.	M		
	13.13	Vendor must guarantee a 48 hour response time to repairing any issue that arises. No hardware or software component shall be down longer than 48 hours.	M		
	13.14	Vendor shall utilize a clear service escalation process.	M		
	13.15	Vendor shall provide a detailed list of replacement parts stock which are recommended for Owner to keep on-hand.	M		
	<b>14.00</b>	<b>Training</b>			
<b>TRAINING</b>	14.01	Vendor shall provide both written and on-line training documentation.	M		
	14.02	The vendor shall conduct on-site training (to be delivered by factory trained personnel) for up to 10 persons employed by the facility owner or parking contractor. The class duration shall be at least 32 hours in length and shall include practical operation and testing of installed equipment and project-specific features and options.	M		
	14.03	Vendor shall provide a dedicated manufacturer-trained technician on-site for the first (7) days of system go-live, to provide any last minute training, programming or configuration of system.	M		
	14.04	The vendor shall conduct up to (40) hours of on-site refresher training within the first year of project sign-off.	D		
	14.05	The vendor shall conduct technical training sessions once a year for eight (8) hours and make them available to those responsible for on-going system operations.	D		