

T2 Systems - Confidential Quotation

For: Virginia Commonwealth University – Sourcewell Pricing
Quote ID: Q-36376
Date Issued: 8/7/2023
Expires: 3/31/2024

Bill To:
 Virginia Commonwealth University
 PO Box 843002, 1108 W. Broad St.
 Richmond, Virginia 23284
 United States

Ship To:
 Virginia Commonwealth University
 1108 W. Broad St.
 Richmond, VA 23284
 United States

Prepared By:
 Jeri Baker

Josh Stone
 804-828-8575
 jstone@vcu.edu
 EIN: 54-6001758

Prepared For:
 Josh Stone

Subscriptions

Product Name	Product Code	Base Unit Price	Quantity	Total
Citation Services: Letter Services		USD 0.00	3,818.00	USD 5,077.94
Year 1	100.2160	USD 0.00	3,818.00	USD 5,077.94
This is only an estimate not actuals. They will be invoiced at \$1.33 each based on actuals. Letters will be sent on schedule based on VCU Business Needs - 31 days, 45 days, and 58 days. Once customer has received 3 letters, they will be eligible to be transferred to collections.				
Citation Services: Delinquent or 3rd Party Collections		USD 0.00	310.00	USD 6,200.00
Year 1	100.2157	USD 0.00	310.00	USD 6,200.00
This is from Sourcewell pricing. \$20.00 flat fee per citation collected - to be passed to violator prior to transfer. This includes the backlog from July 1, 2021 - Present. (CCS will process 3 years of uncollected citations.)				
TOTAL:				USD 11,277.94

Year 1 Total: USD 11,277.94

Net Total: USD 11,277.94

Tax Amount: USD 0.00

Tax Comments: N/A

Additional Information:

Freight Term: FOB-VEND-PP

Payment Terms: N30

IRIS Profile:

End User: Virginia Commonwealth University

GP Customer Number: 1730

Billing Terms

Upon processing of order, invoice issuance for subscriptions, hardware, services and shipping will be 50% at time of booking and 50% at project completion.

Travel is invoiced as incurred.

Stand-alone Mobile Enforcement App orders or CheckPayment order subscriptions, hardware, services and shipping will be invoiced within 30 days of order processing.

Stand-alone Managed Services orders are invoiced 100% upon order processing.

CS, RoVR and Permit Direct services are invoiced per transaction or per usage (minimum fees apply). Additional details to be provided in supporting documents.

Tax rate, if applicable, will be finalized for calculation at time of invoicing.

Invoices paid via credit card will incur a 2.5% convenience fee.

Purchase orders can be forwarded to purchaseorders@t2systems.com

Quote is developed in conjunction with the applicable Statement of Work. If any billing term language conflicts occur, Standard Billing Term section in Statement of Work document takes precedence.

Quote Number: Q-36376

PO Required?

IF "NO" IS SELECTED UNDER PO REQUIRED, CUSTOMER ACCEPTS RESPONSIBILITY TO PROCESS CONTRACT PAYMENT WITHOUT RECEIPT OF PURCHASE ORDER NUMBER.

Customer DocuSigned by:
John McHugh

Signature EE6DA7427C67468...

Print Name **John MCHugh**

Title **Director, Procurement Services**

Date **3/14/2024**

PO #



Collection Services Addendum

THIS COLLECTION SERVICES ADDENDUM GOVERNS THE PROVISION AND USE OF COLLECTION SERVICES PURCHASED BY VIRGINIA COMMONWEALTH UNIVERSITY, AN INSTITUTION OF HIGHER EDUCATION OF THE COMMONWEALTH OF VIRGINIA ("CUSTOMER") FROM T2 SYSTEMS, INC. ("T2 SYSTEMS").

1. BACKGROUND.

The parties have entered into a Master Customer Agreement ("Agreement") with Effective Date November 30, 2022. This Addendum is incorporated into and subject to the terms of the Agreement and the terms of the Agreement are incorporated herein. To the extent of any conflict between the terms of this Addendum and the Agreement, the terms of the Addendum shall control. All terms defined in this Addendum shall have the meanings ascribed thereto. Capitalized terms used in this Addendum that are not otherwise defined in this Addendum have the meaning set forth in the Agreement.

Customer has authority pursuant to certain laws, ordinances and/or regulations to assess and collect fines and citations for violations of these laws, ordinances and/or regulations. T2 Systems is a duly licensed collection agency, and possesses the personnel, experience, expertise, and equipment to collect the fines and citations through an effective collection process and court action, if necessary. Customer and T2 Systems have mutually agreed that T2 Systems will assist in the collection of, or actually collect, certain unpaid fines and citations (the "Accounts") which Customer refers to T2 Systems from time to time during the Term of this Addendum.

2. REFERRED ACCOUNTS.

(a) Referred Accounts. Pursuant to the terms and conditions of this Addendum, Customer shall provide to T2 Systems, from time to time, those Accounts which Customer desires T2 Systems to assist in the collection of (or actually collect) on behalf of Customer. All Accounts submitted to, and accepted by, T2 Systems shall be referred to as "Referred Accounts."

(b) Collection of Referred Accounts. T2 Systems agrees to undertake the collection of each Referred Account in accordance with the level of service selected by Customer which shall be described in more detail in a Statement of Work ("SOW") in the form attached hereto as Appendix A (collectively, the "Collection Services").

(c) T2 Systems Collection Services. During the Term of this Addendum, T2 Systems agrees to employ such lawful means, methods, and procedures as in T2 System's judgment, discretion and experience, it believes will best effect the collection of the Referred Accounts. T2 Systems may use outside contractors or vendors to perform certain portions of the Collection Services and/or gather information about Referred Accounts and the obligors thereon.

(d) Authority to Settle Referred Accounts. Customer hereby authorizes T2 Systems to collect, compromise, or settle each Referred Account. However, unless otherwise authorized by Customer in writing, any such settlement shall be in conformance with the minimum amounts as set forth on the applicable SOW related to the Referred Account in question.

(e) Transfer of Accounts. All Accounts will be forwarded to T2 Systems using the systems and procedures designed by T2 Systems. Upon request of T2 Systems, Customer will provide certified copies or originals of violation notices, tickets, citations, assessments letters, and any other documents necessary for use by T2 Systems in collection of the Referred Accounts. T2 Systems agrees to keep all such documents confidential and to not use or disclose them (or the information contained therein) for any purpose other than the performance of the Collection Services.



- 2 -

- (f) **Exclusivity of Collection Services.** Customer agrees that T2 Systems shall be the exclusive third-party collector of all Referred Accounts during the Term of this Addendum and during any applicable retention period set forth in Section 3. If Customer refers an Account to T2 Systems, which becomes a Referred Account, Customer may continue to exercise its collection efforts with respect to such Referred Account; provided, however, that T2 Systems shall be entitled to payment pursuant to the terms of this Addendum for all collections made against such Referred Account, irrespective of who makes such collection.
- (g) **Rejected and Returned Accounts.** T2 Systems may reject any Account or return any Referred Account to Customer at any time for any reason (or no reason) in its sole discretion. After an Account is rejected or a Referred Account is returned to Customer at T2 System's request, T2 Systems shall not be entitled to any additional fees with respect thereto. T2 Systems will return to Customer such Referred Accounts which it determines, in its sole judgment and discretion, to be uncollectible. If Customer wishes to remove a Referred Account from T2 Systems (the "Returned Accounts"), Customer will notify T2 Systems in writing at least ten (10) days in advance (the "Return Notice"). Section 3 shall govern the collection on any Returned Accounts. Within thirty (30) days of the expiration of the one (1) year period set forth in Section 3 for Returned Accounts, T2 Systems agrees to return each such Returned Account to Customer.

3. TERM AND TERMINATION.

- (a) **Term.** The initial term of this Addendum is six (6) months. This Addendum may be extended while negotiating and executing a separate new agreement.
- (b) **Termination.** Either party may terminate this Addendum if the other party fails to perform any obligation hereunder which failure is not cured within fifteen (15) days after notice from the other party, except that T2 Systems may terminate this Addendum immediately for Customer's failure to pay any amounts hereunder when due and payable. In the event T2 Systems elects to retain any Referred or Returned Account pursuant to the section below, the provisions of this Addendum applicable to such continuing collection efforts shall survive any termination or expiration of this Addendum until all rights and obligations hereunder are fully performed and/or satisfied with respect to such accounts.
- (c) **Retention of Referred Accounts.** Upon the expiration of this Addendum or earlier termination of this Addendum by T2 Systems due to a breach by Customer, T2 Systems shall have the right, at its sole discretion, to retain for collection, pursuant to the terms and conditions of this Addendum, any Referred Account upon which a partial payment has been made within the prior one (1) year period or which is subject to an agreed upon payment plan.

4. PAYMENT TERMS.

- (a) **Collection fees.** During the term of this addendum and during any applicable retention period set forth in Section 3, T2 Systems shall be entitled to the fees, costs, and expenses set forth (in the SOW applicable referred account), regardless of whether collected by T2 Systems, Customer, or others.
- (b) **Payments to and from Customer.** Customer agrees that T2 Systems will deposit each check received from the Customer's end customer on behalf of the Customer. T2 Systems shall remit each payment it collects on a Referred Account to Customer, minus T2 System's fees and any other amounts owed to T2 Systems, on or before the twentieth (20th) day of each month following the month in which the amount was actually collected. Invoices may be submitted to Customer by Collection Citation Services, LLC, which is an Affiliate of T2 Systems, Inc.

Customer shall remit, or cause to be remitted, all amounts owed T2 Systems under this Addendum, if any, within thirty (30) days of receipt of notice thereof from T2 Systems. A late fee of one percent (1%) per month shall be assessed on all past due amounts from Customer based upon the aggregate amount of all



past due monies. T2 Systems shall also be entitled to reasonable attorney's fees and other costs of collection incurred in attempting to collect past due amounts from Customer.

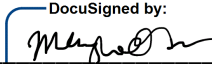
- (c) Direct Payments. Customer agrees to immediately notify T2 Systems of any payments on a Referred Account made directly to Customer, and T2 Systems will be entitled to the fees specified in this Addendum as if T2 Systems had actually collected the Referred Account. Any such amounts may be deducted from Customer's next monthly payment from T2 Systems.

5. MISCELLANEOUS.

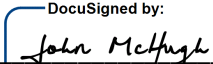
- (a) Inspection Rights. Customer, its auditors, or any governmental agency or other party authorized to supervise, regulate or audit Customer, may examine T2 System's records pertaining to the Referred Accounts during normal business hours and upon ten (10) days' advance written notice; or with less notice if required of Customer by any such agency or other party or by law.
- (b) Entire Agreement. This Addendum (including all Appendices and Quote(s)) and the Agreement comprise the entire understanding and agreement between parties regarding the subject matter hereof and supersedes all prior written and oral agreements, purchase orders, representations, understandings, promises, descriptions or other communications between the parties regarding the subject matter hereof.

IN WITNESS WHEREOF, the parties have executed this Addendum by a duly authorized representative thereof.

T2 SYSTEMS, INC.

DocuSigned by:
 Per: 
987379D63F1E459...
 Name: Maggie Vercoe
 Title: Senior VP, Customer Experience
 Date: 3/14/2024

VIRGINIA COMMONWEALTH UNIVERSITY, AN INSTITUTION OF HIGHER EDUCATION OF THE COMMONWEALTH OF VIRGINIA

DocuSigned by:
 Per: 
EE6DA7427C67468...
 Name: John McHugh
 Title: Director, Procurement Services
 Date: 3/14/2024





Notice Processing and Collections Statement of Work

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CONTENTS

Notice Processing and Collections Statement of Work	i
Scope	3
Project Methodology	3
Project Schedule	3
Change Control.....	3
Assumptions, Constraints, and Risks	3
Notice Fulfillment	3
Collection Services	4
Agency Collection Services Details	4

The Statement of Work and any Exhibits or Attachments hereto shall be governed by the terms and conditions of the T2 Uni Agreement and Services Addendum dated February 7, 2024, between T2 Systems and Virginia Commonwealth University (CUSTOMER).

SCOPE

This Statement of Work (SOW) outlines the deliverables to be completed for the successful project implementation and on-going services for Virginia Commonwealth University. Deliverables not addressed in this SOW are considered out-of-scope and not included.

T2 will provide the following activities through Citation Collection Services, LLC ('CCS') a wholly owned subsidiary of T2.

Project Methodology

Each party shall designate a Project Manager who shall work together to facilitate an efficient delivery of the SOW. The T2 Project Manager will be responsible for project planning, scheduling, and issue/risk resolution.

The Agency's Project Manager will be responsible for identifying and coordinating Agency resources necessary to meet the project schedule.

T2 will assign a dedicated Business Analyst (BA) dedicated to the project's success.

Time is of the essence and all parties must participate as required to meet the time limit.

Project Schedule

During the project kick-off meeting, the T2 Project Manager, with the Agency's Project Manager, will determine the project schedule.

Change Control

Customer may request changes to this SOW or planned deliverables. Change request may result in a change to the price, schedule and other terms and conditions contained herein.

Assumptions, Constraints, and Risks

Much of the CCS work will be performed remotely. Any requirements for project resources to come onsite may result in additional consulting fees and related travel expenses.

Notice Fulfillment

- Letter compilation, printing, and fulfillment
 - 31 days
 - 45 days
 - 58 days

- Nationwide first – class mail delivery
- NCOA (National Change of Address) address matching against the U.S. Postal Service database to verify accuracy and improve cash-flows
- High quality, 600 dpi resolution mailings
- Client logo included on letter
- Daily, weekly, or monthly letter services can be selected to create steady and predictable cash flows.

Collection Services

- CCS will perform outbound collection procedures on individual debts including:
 - Third party, FDCPA (Fair Debt Collection Practices Act) compliant letter services and outbound/inbound collection call center services
 - State licensed
 - Experienced staff
 - Non-confrontational and professional approach that reflects positively on your organization
 - Skip Tracing – access to a database with personal information
 - Real time bankruptcy information to ensure that no FDCPA violation is committed when pursuing an individual who has petitioned for bankruptcy, verify the legitimacy of the bankruptcy status, and improve collection efficiency and results

Agency Collection Services Details

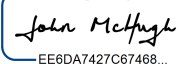
- CCS will assume responsibility for all citations the Agency has identified and escalated to a collection status CCS does not assume responsibility for obtaining and/or the accuracy of the registered owner information provided by the Agency.
 - Fee is \$20 for each citation collected that are transferred to CCS for collections.
 - Citations that are 60 days delinquent or greater.
 - Backlog accepted from July 1, 2021 forward.
- Citations that meet the criteria of delinquent collections will be pursued using T2's collections process that may include the state debt set off programs.
- With CCS's assistance, the Agency will transfer the citations (a soft transfer with the balance remaining in the T2 Flex solution) to collections. Prior to transfer, the contingency fee of \$20 per citation will be added to each citation. Payments can be made at the Agency or CCS.

Once collected at CCS, CCS will remit back to the Agency the amount paid less than the \$20 per citation fee. If collected by the Agency, the \$20 payment amount will also be charged to the Agency for CCS collection services on accounts.

- CCS is authorized to collect on the citations' balance using collection best-practices. This can include additional letter notifications and outbound calling. These collection best-practices are already included in the fee quoted.
- T2/CCS will provide a query to export the citation data to be escalated to CCS for collections. The Agency will generate this file weekly. In advance of generating this file, the data will be matched with current Registered Owner information.
- CCS limits the number of citations that can have a fee waived per month. Six (6) citations per month can have their service fees waived.
- In the event the Agency needs to recall a citation that has already been escalated for collection, the Agency will notify CCS via email at ccsclientservices@t2systems.com. Once the initial letter has been sent, the Agency can use one of their six (6) citation waivers per month to remove the service fee.
- CCS will send one (1) PL-95 collection letter per citation. Assuming the citation holder does not pay from the PL-95, CCS will begin collection best practice procedures.
- CCS will provide a daily payment file to import into the Agency's T2 Flex database made through CCS. The file will contain the citation number, payment date and citation amount. The file will be imported via the T2 Flex Task Scheduler using the Citation Payments Received task.
- CCS will obtain from the Agency a daily payment import file of payments received at the Agency. It will contain the citation number, payment date and citation amount. It will be imported into the collection's software.
- CCS will provide the Agency with a monthly reconciliation report on the 3rd Friday of each month. The report will provide statistics on citations collected, dollar amount collected, and associated fees. Also, an electronic check will be issued in the total amount collected, net of fees.
- CCS will assess fees to the parker for insufficient funds. A flat \$20.00 fee would be assessed to the citation holder for insufficient funds. CCS will retain this fee for bank services.
- CCS will provide a Project Manager responsible for project planning, scheduling, and status reporting. In addition, the Project Manager will act as the project's single point of contact with regards to change management and issue/risk control.

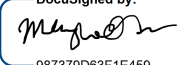
“Customer”

Virginia Commonwealth University

DocuSigned by:
By: 
EE6DA7427C67468...
Printed Name: John MCHugh
Title: Director, Procurement Services

“CCS”

Citation Collection Services, LLC

DocuSigned by:
By: 
987379D63F1E459...
Printed Name: Maggie Vercoe
Title: Senior Vice President, Customer Experience

Retrieval of Vehicle Registrations (RoVR) Addendum

THIS RETRIEVAL OF VEHICLE REGISTRATIONS (RoVR) ADDENDUM GOVERNS THE PROVISION AND USE OF THE ADDENDUM SERVICES PURCHASED BY VIRGINIA COMMONWEALTH UNIVERSITY (“CUSTOMER”) FROM T2 SYSTEMS, INC. (“T2 SYSTEMS”).

1. **BACKGROUND.** The parties have entered into contract number 6018303JC, effective June 30, 2016, and the amendments thereto and Master Customer Agreement, with Effective Date November, 2022. This Addendum is incorporated into and subject to the terms of the Master Customer Agreement and the terms of the Master Customer Agreement are incorporated herein. To the extent of any conflict between the terms of this Addendum and the Master Customer Agreement, the terms of the Master Customer Agreement shall control.
2. **DEFINITIONS.** In this Addendum:
 - (a) **“Addendum”** means this Retrieval of Vehicle Registrations (RoVR) Addendum.
 - (b) **“Addendum Services”** means the provision of access to RoVR by T2 Systems and/or any additional services provided under this Addendum.
 - (c) **“Agreement”** means the Master Customer Agreement.
 - (d) **“Effective Date”** means the date set forth below as the executed date.
 - (e) **“RoVR”** means the application owned by T2 Systems known as the Retrieval of Vehicle Registration system.

All other terms defined in this Addendum shall have the meanings ascribed thereto. Capitalized terms used in this Addendum that are not otherwise defined in this Addendum have the meaning set forth in the Agreement.

3. **TERM AND RENEWAL.** The **“Initial Term”** of this Addendum shall be for a period of one (1) month from the Effective Date of this Addendum unless there is a Default as defined in Section 8(a). Reasonable reconnect fees and a minimum term period may be imposed by T2 Systems in the event that the Customer terminates this Addendum and subsequently wishes to re-subscribe to the Addendum Services or in the event of a Default. This Addendum may be renewed in accordance with the Master Customer Agreement unless otherwise terminated as provided herein.
4. **USE OF ROVR.** In accordance with this Addendum and the Agreement, T2 Systems grants Customer authorization to use RoVR on a month-to-month basis.
5. **DOCUMENTATION.** Certain states require that the Customer execute a signed application for access to vehicle registration information. T2 Systems will assist Customer with the application process, however, T2 Systems shall not be held accountable for any denial of access to vehicle registration information by any state or governmental authority.
6. **EXCLUSIVE USE.** Customer agrees that information made available through T2 Systems’ RoVR service will be used in compliance with the Federal Driver’s Privacy Protection Act and other applicable laws governing the dissemination of public information. Such information will be used exclusively in the ordinary conduct of the Customer’s business functions and data provided through the RoVR service will not be resold in any manner.
7. **FEES AND PAYMENT.** Customer will pay to T2 Systems a monthly subscription that shall be calculated as the greater of ninety-five dollars (\$95.00) per month or one dollar and ninety-five cents (\$1.95) per vehicle registration obtained by the Customer. Upon execution of this Addendum, T2 Systems will grant a credit for an amount equal to fifty (50) vehicle registrations obtained by the Customer through the use of the




RoVR service. With each monthly payment, T2 Systems will submit to Customer a written invoice and report that sets forth the vehicle registrations successfully obtained on behalf of Customer during the given invoice period.

8. DEFAULT & TERMINATION.

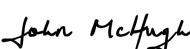
- (a) Default. If Customer fails to abide by the obligations of this Addendum, including the obligation to make a monthly payment when due (each a "Default"), T2 Systems shall have the option to cancel this Addendum by providing written notice to Customer. Customer may prevent the termination of this Addendum by taking corrective action that cures the default provided that such corrective action is taken within ten (10) days and if there are no other Defaults during such time period.
- (b) Termination. Either party may terminate this Addendum by providing thirty (30) days written notice to the other party following the initial Term for which the Addendum is in place. In the event that Customer exercises its right to terminate this Addendum, Customer agrees to pay T2 Systems for any registered owner information requested prior to the effective date of termination and registered owner information returned after the effective date of termination.

9. ENTIRE AGREEMENT. This Addendum (including all Appendices and Quote(s)) and the Master Customer Agreement comprise the entire understanding and agreement between parties regarding the Addendum Services and supersedes all prior written and oral agreements, purchase orders, representations, understandings, promises, descriptions or other communications between the parties regarding the Addendum Services.

T2 SYSTEMS, INC.

DocuSigned by:

 Per: _____
1167447A700243B...
 Name: Joe weiler
 Title: Vice President Sales

VIRGINIA COMMONWEALTH UNIVERSITY

DocuSigned by:

 Per: _____
EE6DA7427C67468...
 Name: John McHugh
 Title: Director, Procurement Services



ROVR CUSTOMER USER CERTIFICATION T2 SYSTEMS, INC.

T2 Systems requires that you certify your intended use of the information made available to you through our services and that such use is in compliance with the Federal Driver's Privacy Protection Act and another applicable laws governing dissemination of public records. Based on your intended use of such information, T2 Systems will either grant you permission to use the service or deny your application. Please specify your intended uses for RoVR provided data and check all that apply.

- _____ a. Law Enforcement
- _____ b. Federal, State or local government purposes
- _____ c. For use by any government agency, including any court of law enforcement agency, in carrying out its functions, or any private person or entity acting on behalf of a Federal, State or local agency in carrying out its functions.
- _____ d. In connection with any civil, criminal, administrative, or arbitration proceeding in any Federal, State, or local court or agency or before any self-regulatory body, including the service of process, investigation in anticipation of litigation, and the execution or enforcement of judgments and orders, or pursuant to an order of a Federal, State or local court.
- _____ e. Other Use Not Defined Above (please describe): _____

In consideration of T2 Systems making its Services available, Customer agrees to (i) utilize RoVR provided data only for the purpose(s) specified above; and (ii) request such information only for the Customer's exclusive use in the ordinary course of Customer's business and not for resale.

I certify that I am authorized to execute the Customer user certification on behalf on the Customer listed below. On behalf of such Customer, I certify that the above statements are true and correct. Customer acknowledges and agrees that T2 Systems may from time to time audit Customer's use of RoVR to ensure that such use is consistent with the intended uses set forth above and will abide by all applicable laws.

(Customer, Name of Agency)

Name and Title

Address

Telephone and Fax Numbers

Email Address



Copy to your letter head

To Whom it May Concern:

Unpaid parking violations are on file with (organization name) issued to vehicles that have been registered in your state. To equally enforce the law, (organization name) would like to obtain the registration information for the license plates in question so that a reminder letter can be sent.

T2 Systems, Inc. of 8900 Keystone Crossing, Suite 700, Indianapolis, IN 46240 is the agent who will be requesting the information on our behalf. We would greatly appreciate it if you would grant T2 Systems, or its duly authorized agents, permission to request this data in the name of (organization name).

Please call the undersigned should you have any questions. Thank you for your anticipated cooperation.

Sincerely,

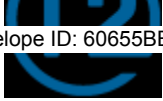
VIRGINIA COMMONWEALTH UNIVERSITY

(Signature)

(Print Name)

(Title)

(Date)



Copy to your company Letterhead

Month, Day, Year

Contact Name
Motorist Information Manager
[State] Department of Motor Vehicles

RE: [State] DMV Information Use Application
Information Security

Dear [],

The [insert customer] has identified Law Enforcement Systems, Inc. (LES) as its third party information service to acquire [insert state] DMV registration records. LES obtains these records on our behalf and then updates them to our parking violation files which reside at LES offices. Under our agreement with LES, they use these records solely for the purpose of assisting in the collection of past due parking fines and fees.

By separate letter (on file at the [] DMV), LES has described their information Security Policy. Any violation of security would be a cause for termination of their contract with us.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

VIRGINIA COMMONWEALTH UNIVERSITY

CONTRACT RENEWAL

DATE: 02/27/2023

CONTRACT TITLE: Permit and Citation Management/Parking Access & Revenue Control System

CONTRACT NO: 6018303JC (C0000191)

NEW START DATE: 07/01/2023

NEW END DATE: 06/30/2024

RENEWAL NUMBER: Eight of Eight (Final Renewal)

CONTRACTOR: T2 Systems, Inc.

PRICING:

Select one of the options below.

- Pricing is in accordance with Quote ID: Q-31547.
- Attached is the revised pricing in accordance with the contract terms.

EARLY PAYMENT DISCOUNT (EPD):

Please check one of the below. If you select "Other" below, please add a comment (e.g., 4.0% Net 15 / Net 30, enrolled in Virtual Card Program, etc.)

- 2.0% Net 15 / Net 30
- 1.5% Net 20 / Net 30
- 0.5% Net 25 / Net 30
- Other: n/a

For more information on the Early Payment Discount program, please visit [Learn about EPD](#).

CERTIFICATE OF INSURANCE:

- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing Virginia Commonwealth University as the "Additional Insured", citing the contractor's name and contract number, emailed to sbkessinger@vcu.edu or mailed to Virginia Commonwealth University Risk Management, P.O. Box 843040, Richmond, VA.

All other terms and conditions of Contract 6018303JC shall remain unchanged and in full force and effect.

RESPONSE:

T2 Systems, Inc.

Name of Firm

DocuSigned by:
Joe Weiler
1157447A700243B...

Signature

Joe Weiler

Name Printed

Vice President, Sales
Title

3/14/2023
Date



VCU Procurement Services

Date: May 25, 2022

Victor Hill
8900 Keystone Crossing Suite 700
Indianapolis, IN 46240

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

RE: Contract #: 6018303JC
Renewal No.: Seven (7) of Nine (9)

Dear Victor Hill:

The current term for the Virginia Commonwealth University (VCU) Contract #6018303JC with T2 Systems will expire on June 30, 2022. VCU intends to renew the contract from July 01, 2022 to June 30, 2023 in accordance with the renewal terms of the contract.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

Pricing is in accordance with Quote ID: Q-22876

By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Would your firm be able to offer early payment discounts? If yes, please fill out your early payment discount below:

Yes No

% Discount Net (15 days minimum)

Will this apply to future purchases? Yes No

Please return the completed and signed renewal document to me no later than June 20, 2022 by email to lofgreenj@vcu.edu. If you have any questions, please contact me at (804) 628-2897.

Sincerely,

Jason Lofgreen

Jason Lofgreen
Senior Buyer, CUPO

Products and Services shall be provided in accordance with contract No. 6018303JC and this renewal form for the renewal period July 01, 2022 through June 30, 2023.

T2 Systems, Inc.

Name of Firm

DocuSigned by:
Joe Weiler
1157447A700243B...

Signature

Joe Weiler

Name Printed

VP Sales Operations

Title

5/25/2022

Date



VCU Procurement Services

Date April 22, 2021

Victor Hill
8900 Keystone Crossing Suite 700
Indianapolis, IN 46240

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7637
TDD: 1-800-828-1120
www.vcu.edu/procurement

RE: Contract #: 6018303JC
Renewal No.: Six (6) of ~~Eight (8)~~ Nine (9)

Dear Mr Hill:

The current term for the Virginia Commonwealth University (VCU) Contract #6018303JC with T2 Systems will expire on June 30, 2021. VCU intends to renew the contract from July 01, 2021 to June 30, 2022 in accordance with the renewal terms of the contract.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

X Pricing is in accordance with Quote ID: Q-14596

— By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return the completed and signed renewal document to me by June 01, 2021 by email to lofgreenj@vcu.edu. If you have any questions, please contact me at (804) 628-2897.

Sincerely,

Jason Lofgreen

Jason Lofgreen
Senior Buyer, CUPO

Products and Services shall be provided in accordance with contract no. 6018303JC and this renewal form for the renewal period July 01, 2021 through June 30, 2022.

T2 Systems, Inc.

Name of Firm

DocuSigned by:

Joe Weiler

Signature

Joe Weiler

Name Printed

VP Sales Operations

Title

4/26/2021

Date



VCU Procurement Services

Date June 5, 2020

Joe Weiler
8900 Keystone Crossing Suite 700
Indianapolis, IN 46240

RE: Contract #: 6018303JC
Renewal No.: Five (5)
Current Purchase Order: P0051845

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

Dear Joe:

The current term for the Virginia Commonwealth University (VCU) Contract #6018303JC with T2 Systems will expire on June 30, 2020. VCU intends to renew the contract from July 01, 2020 to June 30, 2021 in accordance with the renewal terms of the contract.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

Pricing is in accordance with Quote ID: Q-08429

By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return the completed and signed renewal document to me no later than June 20, 2019 by email to lofgreenj@vcu.edu. If you have any questions, please contact me at (804) 628-2897.

Sincerely,

Jason Lofgreen

Jason Lofgreen
Senior Buyer, CUPO

Products and Services shall be provided in accordance with contract no. 6018303JC and this renewal form for the renewal period July 01, 2020 through June 30, 2021.

T2 Systems, Inc.

Name of Firm

DocuSigned by:
Joe Weiler

Signature

Joe weiler

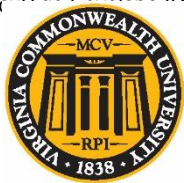
Name Printed

VP sales operations

Title

06/05/20

Date



VCU Procurement Services

Date June 21, 2019

Joe Weiler
8900 Keystone Crossing Suite 700
Indianapolis, IN 46240

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

RE: Contract #: 6018303JC
Renewal No.: Four (4)
Current Purchase Order:

Dear Joe:

The current term for the Virginia Commonwealth University (VCU) Contract #6018303JC with T2 Systems will expire on June 30, 2019. VCU intends to renew the contract from July 01, 2019 to June 30, 2020 in accordance with the renewal terms of the contract.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

- _____ Pricing is in accordance with Quote ID: Q-01848
- _____ By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return the completed and signed renewal document to me no later than June 28, 2019 by email to lofgreenj@vcu.edu. If you have any questions, please contact me at (804) 628-2897.

Sincerely,
Jason Lofgreen
Jason Lofgreen
Senior Buyer

Products and Services shall be provided in accordance with contract no. 6018303JC and this renewal form for the renewal period July 01, 2019 through June 30, 2020.

T2 Systems, Inc.

Name of Firm

DocuSigned by:

Joe Weiler

Signature

Joe weiler

Name Printed

VP sales operations

Title

25/6/2019

Date

T2 Systems - Confidential Quotation



Virginia Commonwealth University

Quote ID: Q-01848

Quote Issued: 6/17/2019

Quote Expires: 6/30/2019

General Information:

Bill To

Virginia Commonwealth University
 PO Box 843002
 Richmond, Virginia 23284
 United States

Ship To

Virginia Commonwealth University
 1108 W. Broad St.
 Richmond, VA 23284
 United States

Prepared By:
 Tristen Moe

Prepared For:
 Amy Anthes

Subscriptions

Product Name	Quantity	Total
Flex Device: PARCS		
Year 1: 06/22/19 – 06/21/20	81.00	USD 69,922.44
Flex Device: Credit Card Processing		
Year 1: 06/22/19 – 06/21/20	22.00	USD 6,330.28
Core Flex Enterprise Edition		
Year 1: 06/22/19 – 06/21/20	1.00	USD 31,154.11
Flex Mobile Enforcement		
Year 1: 06/22/19 – 06/21/20	27.00	USD 21,776.10
Flex Test Instance		
Year 1: 06/22/19 – 06/21/20	1.00	USD 4,555.46
Flex FlexPort Accounts		
Year 1: 06/22/19 – 06/21/20	1.00	USD 1,244.46
Flex FlexPort Enforcement		
Year 1: 06/22/19 – 06/21/20	1.00	USD 1,244.46
Flex FlexPort Permits		
Year 1: 06/22/19 – 06/21/20	1.00	USD 1,244.46

Total: USD 137,471.77

Tax Amount: USD 0.00

Tax Comments: N/A

Additional Information:

Freight Term: FOB-VEND-PP

Payment Terms: N30

IRIS Profile:

End User: Virginia Commonwealth University

GP Customer Number: 1730

Billing Terms

This renewal quote is for expiring subscriptions and may not include all subscription services in use by your organization. Any italicized pricing on the quote indicates a continuation of a current subscription, following a bridge term. The italicized pricing is a place holder, included on the quote only to note a change in a subscription's term. The quote's annual totals do **NOT** include the cost of any italicized pricing because these amounts are not being renewed.

Ongoing software subscriptions and hosting fees are billed annually and payable on the anniversary of the software location activation date. The subscriptions and support identified on Quote Q-01848 are hereby extended and shall now expire on June 21, 2020. The Subscriptions may be renewed by the Commonwealth upon mutual agreement of both parties and in accordance with the Terms and Conditions of Contract #6018303JC.

Tax rate, if applicable, will be finalized for calculation at time of invoicing.
Invoices paid via credit card will incur a 2.5% convenience fee.

Quote Number: Q-01848

Is a PO number required to be referenced on the invoice?

YES

NO

IF "NO" IS SELECTED UNDER PO REQUIRED, CUSTOMER ACCEPTS RESPONSIBILITY TO PROCESS CONTRACT PAYMENT WITHOUT RECEIPT OF PURCHASE ORDER NUMBER.

Customer

Karol Kevin Gray

Signature

KAROL KEVIN GRAY

Print Name

SR. VP & CEO

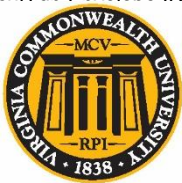
Title

6-27-19

Date

P0011684

PO #



VCU

Procurement Services

Date June 14, 2018

Lynn Braddock
8900 Keystone Crossing Suite 700
Indianapolis, IN 46240

Procurement Services
University Purchasing

912 W Grace Street, 5th Floor
Box 980327
Richmond, Virginia 23284

804 828-1077
Fax: 804 828-7837
TDD: 1-800-828-1120
www.vcu.edu/procurement

RE: Contract #: : 6018303JC
Renewal No.: Three (3)
Current Purchase Order:

Dear Samantha:

The current term for the Virginia Commonwealth University (VCU) Contract #6018303JC with T2 Systems expires on June 30, 2018. VCU intends to renew the contract from July 01, 2018 to June 30, 2019 in accordance with the renewal terms of the contract.

Your signature constitutes your firm's acceptance of this renewal, to include the optional use language and the eVA registration requirement provisions below.

This contract is an optional use contract. VCU is in no way required to make purchases from the Contractor and may in its sole discretion; purchase the identical and/or similar goods/services from other sources. Services shall be provided in accordance with the contract for the renewal period: July 01, 2018 through June 30, 2019.

- Pricing remains the same as the previous contract period.
- Attached is the revised pricing in accordance with the contract terms.
- By signing and submitting this contract renewal letter Contractor certifies that it will maintain the insurance coverages required at the time the contract was awarded. At renewal, Contractor shall have a new Certificate of Insurance listing VCU as the "Additional Insured", citing the contractor's name and contract number, mailed to VCU Risk Management, Box 843040, Richmond, VA.

Please return the completed and signed renewal document to me no later than June 20, 2018 by email to pbanks3@vcu.edu. If you have any questions, please contact me at (804) 828-0160.

Sincerely,
Princess Banks
Princess Banks
Senior Buyer

Products and Services shall be provided in accordance with contract no. 6018303JC and this renewal form for the renewal period July 01, 2018 through June 30, 2019.

T2 Systems, Inc.

Name of Firm

DocuSigned by:

Joe Weiler

Signature

Joe Weiler

Name Printed

VP, Sales Operations

Title

7/9/18

Date



T2 Systems – Confidential Quotation

For: Virgini o m elth U iversity – Flex E t., Flex host, PAR S, PAR S host, FlexPort, Test, M
 A – Re e l exp. 06.21.18

Quote Issued: 07/02/2018 M

Quote Expires: 08/15/2018 M

Quote ID: 00009332

usto r #: 1780

General Information

Bill To:

Virgini o m elth U iversity M
 Box 843000 1108W. Bro d StM M
 Rich o d, Virgini 23284 M

Ship To:

Virgini o elth U iversity
 1108W West Bro d Street
 Rich o d, Virgini 23284

Prepared By:

Triste æ M

Prepared For:

m y A thes

Subscriptions

Product Name	Qty	Line Item Description	Year 1: 06/22/18 – 06/21/19
Flex DevMe: PAR S M	1.00 M	PAR S Soft re / 1-Ye r Ter Re e l M	USD 5,680.71
Flex E terprise EdM	1.00 M	Per M M ge M t Syste M 1-Me r Ter Re e l	USD 1,922.50 M
Flex FlexPort Accou Ns	1.00 M	1-Me r Ter Re e l	USD 1,209.72
Flex FlexPort E MrcM t e	1.00	1-Ye M Ter M Re M MI	USD 1,209.72
Flex FlexPort Pri ts	1.00	1-Ye r Ter Re e l	USD 1,209.72 M
Flex Mobile E force M t	13.00	o-ter 02/11/19 – 06/21/19 (130 d ys)	USD 1,623.50
Flex Mobile E force t	12.00	o-ter: 10/14/18 – 06/21/19 (251 d ys)	USD 1,484.42
Flex Mobile E force M t e	2.00 M	o-ter 02/11/19 – 06/21/19 (130 d ys)	USD 557.45
Flex Test I st M eM	1.00	o-ter: 08/01/18 – 06/21/19 (325 d ys)	USD 3,943.01
T2 Flex Hosti g Fee	1.00 M	Flex Hosti g / 1-Ye M Ter M Re M l	USD 10,461.99 M
T2 Flex PAR M Per L Me Hosti g Fee	1.00 M	PAR M Hosti g / 1-Ye M Ter Re M MI M	USD 28,442.92

M
Total Annual Investment: USD 22,645.66



Account Nam : -----
Print Name: -----
Signature: -----
Ti l : -----
Date: -----



T2 Systems – Confidential Quotation

For: Virginia Commonwealth University – Embedded Technician Service Contract – RENEWAL exp. 06.21.18

Quote Issued: 7/4/2018

Quote Expires: 8/15/2018

Quote ID: 00010921

Customer #: 1730

General Information

Bill To:

Virginia Commonwealth University
Parking & Transportation 1108 W. Broad St., Box
843002
Richmond, Virginia 23284

Prepared By:

Tristen Moe

Ship To:

Virginia Commonwealth University
1108 W. Broad St.
Richmond, Virginia 23284

Prepared For:

Amy Anthes

Services

Product Name	Quantity	Line Item Description	06/21/18	06/21/19
PARCS Embedded Technician Service Contract	1.00	1-Year Term Renewal		USD 115,000.00

Total:
Total Annual Investment: USD 115,000.00

Quote Acceptance

Account Name: -----

Print Name: -----

Signature: -----

Title: -----

Date: -----



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
10/31/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

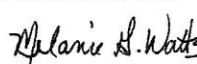
PRODUCER Willis of Michigan, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	CONTACT NAME: PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@willis.com	
	INSURER(S) AFFORDING COVERAGE	
INSURED T2 Systems, Inc. 8900 Keystone Crossing Suite 700 Indianapolis, IN 46240 T2 Quote ID 9332	INSURER A: StarNet Insurance Company NAIC # 40045	
	INSURER B: Berkley Insurance Company 29580	
	INSURER C: Berkley National Insurance Company 38911	
	INSURER D: AXIS Insurance Company 37273	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** W4234625 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		TCP 7007311-12	10/31/2017	10/31/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY		TCP 7007311-12	10/31/2017	10/31/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		TUL 7007372	10/31/2017	10/31/2018	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	TWC 7007313-12	10/31/2017	10/31/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Cyber Security Liability		ECN000249581701	10/31/2017	10/31/2018	Limit: \$5,000,000 Retroactive Date: 1/1/2004

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Issued for evidence of insurance purposes only.

CERTIFICATE HOLDER Virginia Commonwealth University 1108 W Broad Street Richmond, VA 23284	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 



VCU

Make it real.

COMMONWEALTH OF VIRGINIA STANDARD CONTRACT

Contract Number: 6018303JC

This contract entered into by T2 Systems, hereinafter called the "Contractor" and Commonwealth of Virginia, Virginia Commonwealth University (VCU), called the "Purchasing Agency".

WITNESSETH that the Contractor and the Purchasing Agency, in consideration of the mutual covenants, promises and agreements herein contained, agree as follows:

PERIOD OF THE PERFORMANCE: From the execution of the contract through June 30, 2016 with eight (8) successive one (1) year renewal options.

SCOPE OF CONTRACT: The Contractor shall provide the goods/services for financial advisory and modeling services to the Purchasing Agency as set forth in the Contract Documents.

The contract documents shall consist of:

- (1) This signed form;
- (2) The Request for Proposals # 6018303JC dated May 23, 2014; including the Addenda dated June 9, 2014, June 20, 2014, July 3, 2014, July 8, 2014, July 22, 2014, and July 25, 2014;
- (3) The Contractor's Proposal dated July 23, 2014; and
- (4) The Negotiated Modification dated December 3, 2014.

All of which documents are incorporated herein by reference.

IN WITNESS WHEREOF, the parties have caused this Contract to be duly executed intending to be bound thereby.

CONTRACTOR:

T2 Systems

By: _____

Name Printed: Tim Maginn

Title: COO

Date: 12/10/14

PURCHASING AGENCY:

Virginia Commonwealth University

By: _____

Name Printed: William R. Decatur

Title: Senior Vice President for Finance and Administration and CFO

Date: 12/11/14



Request for Proposal

Enterprise RFID
Permit & Citation
Management System

|
&

Enterprise Parking
Access & Revenue
Control System



*Virginia
Commonwealth
University
Richmond, VA*





Request For Proposals RFP #6018303JC

Issue Date: 5/23/2014

Title: Permit and Citation Management/Parking Access & Revenue Control System

Issuing and Using Agency: Virginia Commonwealth University
Attention: Jackie Colbert
10 S 6th St., 2nd floor
POB 980327
Richmond, Virginia 23298-0327

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EST) local time on 7/2/2014.

All Inquiries For Information Should Be Directed To: ISSUING AGENCY, address listed above or to Phone: (804) 828-0163, Email: jcolbert@vcu.edu, VOICE TDD: (800) 828-1120.

This solicitation & any addenda are posted on the eVA website at: <http://www.eva.virginia.gov>

HARD-COPY, ORIGINAL PROPOSALS MUST BE RECEIVED IN VIRGINIA COMMONWEALTH UNIVERSITY'S DEPARTMENT OF PROCUREMENT SERVICES ON OR BEFORE THE DATE AND TIME DESIGNATED ON THIS SOLICITATION. ELECTRONIC SUBMISSIONS AND FACSIMILE SUBMISSIONS WILL NOT BE ACCEPTED IN LIEU OF THE HARD-COPY, ORIGINAL PROPOSAL. VENDORS ARE RESPONSIBLE FOR THE DELIVERY OF THEIR PROPOSAL. PROPOSALS RECEIVED AFTER THE OFFICIAL DATE AND TIME WILL BE REJECTED. THE OFFICIAL DATE AND TIME USED IN RECEIPT OF RESPONSES IS THAT TIME ON THE CLOCK OR AUTOMATIC TIME STAMP IN THE DEPARTMENT OF PROCUREMENT SERVICES. IF PROPOSALS ARE MAILED, SEND DIRECTLY TO VIRGINIA COMMONWEALTH UNIVERSITY, PROPOSAL PROCESS DEPARTMENT, POB 980327, RICHMOND, VA 23298-0327. **IF PROPOSALS ARE HAND DELIVERED OR SENT BY COURIER, DELIVER TO:** VIRGINIA COMMONWEALTH UNIVERSITY, DEPARTMENT OF PROCUREMENT SERVICES, 10 S 6TH ST., 2nd FLOOR, RICHMOND, VA 23219. THE RFP NUMBER, DATE AND TIME OF PROPOSAL SUBMISSION DEADLINE, AS REFLECTED ABOVE, MUST CLEARLY APPEAR ON THE FACE OF THE RETURNED PROPOSAL PACKAGE.

In Compliance With This Request for Proposals And To All Conditions Imposed Therein and Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services Described Herein In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation. **Signature below constitutes acknowledgement of all information contained through links referenced herein.**

NAME AND ADDRESS OF FIRM:

_____	Date: _____
_____	By (<i>Signature In Ink</i>): _____
_____ Zip Code _____	Name Typed: _____
E-Mail Address: _____	Title: _____
Telephone: (____) _____	Fax Number: (____) _____
Toll free, if available	Toll free, if available
DUNS NO.: _____	FEI/FIN NO.: _____
REGISTERED WITH eVA: () YES () NO	SMALL BUSINESS: () YES () NO
VIRGINIA DMBE CERTIFIED: () YES () NO	MINORITY-OWNED: () YES () NO
DMBE CERTIFICATION #: _____	WOMEN-OWNED: () YES () NO

A Pre-Proposal conference will be held. See Section 7, Page 8-61 herein for additional information.

TABLE OF CONTENTS

SECTION 1 Project Information	1-1
1.1 Intent and Scope.....	1-1
1.2 General Information	1-2
1.3 Parking & Transportation Department.....	1-2
1.4 Current PARCS Overview	1-3
1.5 Definitions.....	1-4
1.6 Detailed Scope of Work.....	1-7
SECTION 2 Permit and Citation Management	2-1
1.7 Software Interface Requirements	2-1
1.8 General Financial Management Function.....	2-4
1.9 Credit Card Processing.....	2-5
1.10 Parking Permit System - Online	2-5
1.11 RFID Permit Encoding & Supply	2-6
1.12 Optional RFID Permit Fulfillment Service	2-8
1.13 Event Parking Reservation and Transaction Processing System	2-8
1.14 Handheld Citation Device	2-9
1.15 Reporting	2-10
1.16 Maintenance and Support Agreement.....	2-10
1.17 Installation Requirements.....	2-10
1.18 Data Migration.....	2-11
1.19 Training.....	2-12
1.20 Qualifications and Standards.....	2-12
1.21 PCI Compliance/Safeguarding Obligations	2-13
1.22 Security/ Backup/ Recovery.....	2-13
1.23 Credit Card Payments and Compliance Questions.....	2-14
1.24 Customization	2-18
1.25 Statement of Work	2-18
1.26 Third party services.....	2-18
1.27 User Group.....	2-19
1.28 Pricing	2-19
1.29 Company Background.....	2-19
1.30 Reporting.....	2-19
1.31 Financial Proposal	2-20
1.32 Price Format	2-22
SECTION 3 Parking Access and Revenue Control Systems.....	3-1
1.33 Work Included	3-1
1.34 Contractor Requirements	3-2
1.35 System Description – General	3-4
1.36 Operating Conditions.....	3-11
1.37 Warranty/Service Agreement.....	3-12
1.38 Spare Parts Inventory	3-15
1.39 Software Interface Requirements	3-15
1.40 System Hosting Technical Requirements	3-16
1.41 General Equipment Description	3-20
1.42 PCI Compliance/Safeguarding Obligations	3-42
1.43 Software Licenses	3-43
1.44 Third party services	3-45
1.45 Execution	3-45
1.46 Company Background.....	3-48
1.47 Financial Proposal	3-49
1.48 Proposal Price Format – Permit Parking Decks Only	3-51
1.49 Proposal Price Format – Permit & Transient Decks Only	3-56



SECTION 4	CONTRACT TERM AND COOPERATIVE PROCUREMENT:	4-61
SECTION 5	OPTIONAL USE CONTRACT:	5-61
SECTION 6	REPORTING AND DELIVERY REQUIREMENTS:	6-61
SECTION 7	PRE-PROPOSAL CONFERENCE:	7-61
SECTION 8	PROPOSAL RESPONSE REQUIREMENTS AND SUBMISSION INSTRUCTIONS:	8-61
SECTION 9	ORAL PRESENTATION:	9-63
SECTION 10	EVALUATION AND AWARD CRITERIA:	10-64
SECTION 11	GENERAL TERMS AND CONDITIONS:	11-64
SECTION 12	SPECIAL TERMS AND CONDITIONS:	12-64

VIRGINIA COMMONWEALTH UNIVERSITY

REQUEST FOR PROPOSAL

SECTION 1 Project Information

1.1 Intent and Scope

Virginia Commonwealth University is soliciting proposals from qualified contractors to furnish, deliver, install and implement a Campus Wide Permit & Citation Management System along with a Parking, Access & Revenue Control System (PARCS) consisting of the following sub-systems or components:

1. Parking Facilities Management System
2. Programmable Access Control System
3. Automated Transient Parking Payment System
4. Web-Based Online Parking Permit System
5. Managed Permit Fulfillment Services
6. Web-Based Citation Enforcement System
7. Web-Based Event Parking Reservation System
8. Credit Card Transaction Processing System

VCU expects this complete parking conversion will increase overall parking efficiency, system productivity, and to improve customer services. The new RFID Permits and new PARC System will expand how students, faculty/staff and visitors conduct their parking activity at Virginia Commonwealth University.

VCU anticipates purchasing a complete RFID Permit and Citation Management system, along with the Parking Access & Revenue Control System (PARCS) within one contract. However, VCU reserves the right to only purchase certain systems and not the entire Permit or PARC system from any contractor or to enter into multiple contracts to obtain the desired results. VCU encourages teaming by vendors to provide the optimal solutions for the delivery of all components of the system as outlined above.

The University's intent is to incorporate all of their parking decks, surface lots and public parking spaces into a new PARC system that will improve the parking experience. The program will impact the process of purchasing on-line Parking Permits, the use of multiple access control credentials in each lane; provide multiple forms of payments for transient parkers, and the existing database transfer of all existing student and faculty/staff records (e.g., parking permits, and parking fines) to the new system. This will be accomplished by interface to VCU's Banner and CBORD systems. The new Permit and Citation Management System will streamline the online purchase of the parking permit and delivery functions, citation issuance and revenue capture, reports and any other processes and functions that may be of use by the University that will be part of a unified, comprehensive and cost effective user oriented system.

The University would also like to integrate an Event Parking Reservation System that will allow visitors attending University events to easily pay to park via a self-printed barcode event voucher and/or future mobile QR code, to integrate with future system Wi-Fi point of sale handhelds used by the University event staff. This system shall allow for online reservations via pre – purchased permits or season ticket parking passes as well as a VIP module for important guests. These events are not limited to athletic events, but any event hosted by University departments throughout the year on the University campus. The University requires a new Parking Access & Revenue Control System (PARCS) that will be scalable

and efficient to manage from one central management center. The primary focus within PARCS will be the Permit access control credential to automatically read and capture the intelligent RFID Permit affixed to the vehicle. The use of additional access control credentials for students and faculty/staff will be with the VCU (RAMBUCKS) card that includes PROXIMITY, Bar Code and mag stripe technologies to be implemented in an automated parking system environment.

The transient activity will have various payment options at the Automated Payment Stations, or in the exit lanes for credit card, VCU (RAMBUCKS) card, validations, or QR codes.

Virginia Commonwealth University wishes to implement the most technologically advanced, user oriented, cost effective Parking Access & Revenue Control System that will interface with the intelligent RFID Permit database on a real-time basis.

Respondents are encouraged to submit their most progressive ideas that are highly scalable and capable of functional expansion as technology advances with proposed alternatives.

1.2 General Information

Founded in 1838, Virginia Commonwealth University (VCU) is a public research university located in Richmond, Virginia.

Virginia Commonwealth University has two main campuses in Richmond, Va.: the Monroe Park Campus located west of downtown Richmond, and the MCV Campus in the urban center. Today, VCU has more than 31,000 students enrolled and over 13,000 Faculty and Administrative Staff

Monroe Park Campus - The 90.6-acre Monroe Park Campus (MPC) took its name in June 2004, replacing the former name, the Academic Campus of VCU. The Monroe Park Campus houses most of VCU's general education facilities, and is situated on the eastern end of the Fan district, a historic, late 19th-century neighborhood adjacent to downtown Richmond.

The Monroe Park Campus (MPC) parking map may be found [HERE](#):

Medical Center of Virginia - The 52.3-acre (MCV) Campus is home to the VCU Medical Center. This includes the Schools of Medicine, Dentistry, Pharmacy, Allied Health, Nursing, and the medical center, which is overseen by the VCU Health System Authority. The campus is also home to the Massey Cancer Center (an NCI-designated Cancer Center) and the Children's Hospital of Richmond at VCU. The MCV Campus is an integral part of Richmond in the old Court End district.

The Medical Center of Virginia (MCV) parking map may be found [HERE](#):

1.3 Parking & Transportation Department

Virginia Commonwealth University - Parking & Transportation Facilities Management Department is responsible for regulating and maintaining the parking space program campus-wide. VCU's parking system includes over 13,000 spaces located in 12 parking decks and approximately 40 parking lots throughout the downtown Richmond area.

During an average year, VCU plans to provide the following:

- 16,000 Student Permits
- 13,000 Faculty & Staff Permits
- 5,000 Visitor Permits
- 2,000 Special Event Permits

Primary Permit categories:

- 50 Types of Student Permits
- 150 Types of Faculty/Staff Permits
- 1 Patron Permit
- 1 Visitor Permit
- 1 Emergency Permit

1.4 Current PARCS Overview

Medical Campus of Virginia Current PARCS Overview

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes	Payment Options
D Deck	MCV	2,174	YES	NO	NO	5	5	PERMIT ONLY
N Deck	MCV	967	YES	NO	NO	1	1	PERMIT ONLY
8 th St. Deck	MCV	972	YES	YES	YES	3	4	PERMIT & PAYMENT
Total		4,113				9	10	

Monroe Park Campus Current PARCS Overview

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes	Payment Options
Bowe St. Deck	MPC	429	YES	NO	YES	3	3	PERMIT ONLY
Henry St. Deck West	MPC	370	YES	NO	YES	2	2	PERMIT ONLY
Henry St. Deck East	MPC	385	YES	NO	NO	2	2	PERMIT ONLY
Jefferson Deck	MPC	679	YES	NO	YES	2	4	PERMIT ONLY
Laurel St. Deck	MPC	209	YES	NO	YES	1	1	PERMIT ONLY
Broad & Belvidere	MPC	194	YES	NO	NO	1	1	PERMIT ONLY
W. Broad St. Deck	MPC	960	YES	YES	YES	4	4	PERMIT & PAYMENT
W. Carey St. Deck	MPC	726	YES	YES	YES	2	3	PERMIT & PAYMENT
W. Main St. Deck	MPC	1,101	YES	YES	YES	4	4	PERMIT & PAYMENT
Total		5,053				21	24	

1.5 Definitions

Definitions of terms used in this RFP and are located throughout this entire document as follows:

1. **Acts of God** – Those events which are outside of control of humans and for which no one can be held responsible and which cannot be prevented. Acts of God include, but are not limited to, severe weather phenomena such as hail, flooding, extreme drought, hurricanes, tornados, tropical storms, fire, earthquakes, and lightning.
2. **Barrier Gate** – An automated gate utilized by the PARCS to control ingress and egress of a parking facility.
3. **CCI/CCO** – Credit Card In/Credit Card Out: an express parking transaction whereby a parker inserts a credit card into an entry station to gain access into a parking facility. Upon exit the parker inserts the same credit card into the exit station. The system matches the entry event with the exit event, calculates the appropriate parking fee, and charges the credit card. Upon positive authorization of the credit card, the barrier gate raises and parker exits the facility.
4. **Contract Documents** – The Contract Documents executed by VCU and the Contractor outlining the requirements for the Work to be performed as it relates to the implementation of the PARCS.
5. **Contractor** – The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the Work contracted, and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the Work.
6. **Dynamic Signage** – signage capable of displaying varying text and/or graphics to relay specific messages to parkers via the use of LED lights. Dynamic signage can be used for various applications including displaying the method of payments accepted at a specific lane, the number of available spaces in a facility/level, or providing guidance to parkers.
7. **EMV** – "EMV[®] is a global standard for credit and debit payment cards based on chip card technology" taking its name from the card groups Europay, MasterCard, and Visa that developed it. The standard covers the processing of credit and debit card payments using a card that contains a microprocessor chip at a payment terminal
8. **Entry Station** – a computerized PARCS device located in an entry lane that facilitates multiple methods of entry including issuing a magnetically encoded or barcode parking ticket, by transporting and reading a magnetically encoded or barcode access card or credit card, reading an AVI transponder, or reading a proximity access card; commonly referred to as: Ticket Dispenser, ticket issuing machine or TIM.
9. **Exit Station** – a computerized PARCS device located in an express exit lane that facilitates multiple methods of exit from a parking facility including transporting and reading a magnetically encoded or barcode parking ticket, retracting and reading a magnetically encoded or barcode access card or credit card, or reading a proximity access card or via RFID. The exit station uses the data from the inserted or detected media to validate exit privileges or calculate and process the associated parking fee; fees can be paid via credit card, or exit is granted via access card or validated/pre-paid magnetically encoded ticket; commonly referred to as: express exit terminal or exit verifier.
10. **FAT** – Factory Acceptance Test: a test of the PARCS Contractor's system and equipment prior to delivery to a project site to ensure that the equipment and system meets the intent of this RFP.
11. **FMS** – Facility Monitoring System: A system that provides central operational and performance information of the system components.
12. **GUI** – Graphical User Interface: A program interface that takes advantage of a computer's graphics capabilities in an attempt to make the program user-friendly and intuitive to use.



13. **IP** – Internet Protocol: IP is a network layer encapsulated in a data link layer protocol (e.g., Ethernet). IP provides the service of unique global addressing amongst computers.
14. **ISO** – short for International Organization for Standardization: An international organization comprised of national standards bodies from around the world. ISO is the world’s largest developer and publisher of standards.
15. **IT** – Information Technology.
16. **LAT** – Lane Acceptance Test: a test of a Contractor’s installed equipment at the lane level to ensure that the equipment meets the intent of this RFP.
17. **LED** – Light Emitting Diode: a type of light commonly used for dynamic signage.
18. **Major Deviation** – Any deviation or failure of a FAT, LAT or Site Acceptance Test procedure that affects fee calculation accuracy, transaction count accuracy, exception count accuracy, active ticket inventory accuracy (system vs. actual), revenue processing, calculations, or reporting.
19. **Minor Deviation** – Any deviation or failure of a FAT, LAT or Site Acceptance Test procedure that does not affect fee calculation accuracy, transaction count accuracy, exception count accuracy, active ticket inventory accuracy (system vs. actual), revenue processing, calculations, or reporting.
20. **NEMA** – National Electrical Manufacturers Association
21. **NEC** – National Electric Code: part of the National Fire Code
22. **NFC** - Near Field Communication; A technology standard for very-short-range wireless connectivity that enables quick, secure two-way interactions among electronic devices. NFC technology typically takes the form of a small chip embedded in a phone or a credit card. The phone or card is simply placed on or very near a reader device (such as a pad on a debit card terminal, kiosk machine, or turnstile) - or another portable NFC device - to initiate a transaction.
23. **Normal Conditions** - Normal conditions are considered to be equipment malfunctions, parts usage under normal wear and tear, and performance of scheduled services.
24. **Normal Weather Conditions** - Normal weather conditions are applicable to weather conditions that are common to the Richmond, VA region such as rain, driving/tropical rain, strong thunderstorms, drought, well below freezing temperatures, snow, hail, ice, 100+ degree temperatures, and high winds.
25. **ODBC** – Open Database Connectivity: In computing, ODBC provides a standard application software programming interface method for using database management systems. ODBC is intended to infer an independence from programming languages, database systems, and operating systems.
26. **OTS** – Office of Technology Services for Virginia Commonwealth University
27. **PA DSS** – Payment Application Data Security Standard: a set of comprehensive data security requirements and parameters for computer applications that process credit card payments.
28. **Pay-on-Foot Station**: a computerized PARCS device that facilitates payment of parking fees prior to a parker returning to their vehicle. Also known as Automated Payment Station.
29. **PARCS** – Parking Access & Revenue Control System: A combination of equipment, subsystems, and supporting infrastructure that allows an entity to accurately calculate, collect, track, and report revenues for parking within one or more facilities. A PARCS also monitors and controls ingress and egress to and from those facilities.
30. **PC** – Personal Computer

31. **PCI DSS** – Payment Card Industry Data Security Standard: a set of comprehensive requirements and parameters for enhancing payment card account data security to help facilitate the broad adoption of consistent data security measures on a global basis.
32. **PDF** – Portable Document Format
33. **PIN** – Personal Identification Number
34. **Preventative Maintenance** - This type of maintenance includes but is not limited to scheduled inspection, testing, necessary adjustment, alignments, lubrication, parts cleaning, replacement of consumables, communication system maintenance, server administration, database administration, and application support of the PARCS hardware and software.
35. **QA/QC** – Quality Assurance/Quality Control: The quality processes and quality checks used to ensure the PARCS and its components comply with the Contract requirements.
36. **RFI/EMI** – Radio Frequency Interference / Electromagnetic Interference: Radio Frequency and Electromagnetic Interference that occur when the radio frequency of electromagnetic field of one device disrupts, degrades, or impedes another device.
37. **RFID** – Radio Frequency Identification: the technology utilized by proximity card systems, such as HID™ or PayPass™, for identifying a parker’s credential. A RFID system consists of an antenna, a transceiver (which reads the radio frequency and transfers the information to a processing device), and a transponder, also called a tag (which is an integrated circuit containing the RF circuitry and information to be transmitted).
38. **SAT** – Site Acceptance Test: A test of a Contractor’s installed equipment at the site or facility level over a defined period of time to ensure that the equipment meets the intent of this performance RFP.
39. **SNMP** – Simple Network Management Protocol: SNMP forms part of the internet protocol suite and is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention.
40. **SQL** – Structured Query Language: a database computer language designed for the retrieval and management of data in relational database management systems, database schema creation and modification, and database object access control management.
41. **TCP/IP** – Transmission Control Protocol/Internet Protocol: The Internet Protocol Suite (commonly known as TCP/IP) is the set of communications protocols used for the Internet and other similar networks.
42. **UL** – Underwriters Laboratories, Inc.
43. **UPS** – Uninterruptible Power Supply: A UPS is a device that maintains a continuous supply of conditioned electric power to connected equipment by supplying power from a separate source when utility power is not available; also known as a continuous power supply or a battery backup.
44. **Unusual Conditions** – Unusual conditions are those conditions other than normal conditions that are out of the control of the Contractor. These events include willful or careless damage to the equipment including parker accidental damage as well as Acts of God.
45. **Work** – Services or goods to be provided by the Contractor per the Contract.



1.6 Detailed Scope of Work

The scope of the required project shall include, but not limited to, the design, development, programming, reliability testing, fabrication, unit testing, system testing, packaging, shipping, installation, start up, maintenance, training of staff and documentation of an enterprise Permit and Citation Management program, along with a Parking Access and Revenue Control System that will provide for multiple credentials for access control and payment services.

The new PARC system will interface with VCU database of all Permit holders for access control by the automated read and capture of an intelligent RFID Permit affixed to the vehicle.

Other integral components of the system shall be the VCU ID Card (RAMBUCKS) that has proximity, mag stripe and a bar code for various intelligent systems throughout VCU campus.

Transient parking will provide for automated payment stations located in strategic locations at each parking deck coinciding with a graphics program to assist transient parkers.

The technical requirements for the project, as set out in this RFP, describe the system concepts, operational and technical requirements and various procedures for the design, development, fabrication, programming, testing, installation and implementation of the various items of access control credentials and fee collection equipment.

Objectives:

1. Improve customer service by reducing system downtime and repair costs.
2. Provide efficient throughput with RFID intelligent Permits
3. Reduce in-lane Queue time for all parkers
4. Improve technology to reduce staff hours and enhance customer service.
5. Improve administration and operations process through enhanced reporting.
6. Automate multiple credentials for access control and payment options

SECTION 2 Permit and Citation Management

1.7 Software Interface Requirements

The Permit and Citation Management System shall include the following system options that must be capable of interfacing with the University's existing Banner System, CBORD and Blackboard systems, and between each module of the system, shall be configured to meet the University's business requirements for permit, transient and event parking.

The University reserves the right to award one or more or all of the following systems and may award to more than one vendor:

1. Parking Facilities Management System
2. Programmable Access Control System
3. Automated Transient Parking Payment System
4. Web-Based Online Parking Permit System
5. Managed Permit Fulfillment Services
6. Web-Based Citation Enforcement/Payment System
7. Web-Based Event Parking Reservation System
8. Secure Credit Card Transaction Processing System

System Hosting Options

The University will consider Hosted and VCU Hosted proposals.

- 1) Vendor/Contractor Hosted Environment
- 2) VCU Hosted Environment
- 3) Hybrid Hosted Environment

System Hosting Technical Requirements

If vendor proposes a hosted, Web-based, Software as a Service (SaaS) solution:

- 1) All hardware and software required for the solution must be housed in a secure site and vendor must provide a SAS 70 style security report from a third-party reviewer
- 2) Solution must include the services required for installation, integration, testing, and maintenance
- 3) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data
- 4) Solution must provide at minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU
- 5) Solution must run on redundant servers with failover capability
- 6) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery
- 7) Solution must provide Web-based remote and mobile access using any industry standard device and browser combination
- 8) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding

- 9) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes.
- 10) System outages for maintenance must not be scheduled during normal working hours (Monday – Friday, 6am – 11pm, EST)
- 11) Solution must provide scalability and adaptability to changing business needs. Customization methodology must be specified.
- 12) User authentication must be LDAP compatible and ideally CAS for VCU administrative access
- 13) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods.

If vendor proposes a VCU-hosted solution:

- 1) Solution must conform to VCU’s architectural standards for operating system, database, server platforms, and user authentication (documentation available on Technology Services’ Web site)
- 2) User authentication must be LDAP compatible and ideally CAS for VCU administrative access
- 3) Solution should be capable of running in a virtual server environment
- 4) Solution must provide VCU the capability to install and integrate the solution with existing systems and data, and manage end-users and data
- 5) Application response time must be demonstrated to not exceed 5 seconds on average to load any system form or display on VCU’s main network (10 Gb/sec)
- 6) Vendor must identify the IT skill-sets required to support the solution
- 7) Solution must provide VCU the scalability, adaptability, and customization ability needed to match evolving business needs and processes. Customization capabilities must be robust and flexible.
- 8) Solution must provide Web-based remote and mobile access using any industry standard device and browser combination
- 9) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data
- 10) Solution must include the services and support required for installation, integration, testing, and maintenance
- 11) Vendor must detail the Total Cost of Ownership over three, five, and ten year periods.

If vendor proposes a ‘hybrid’ solution:

- 1) Solution must provide subscription-based licensing
- 2) Solution must be a single-tenancy architecture where applications, databases, servers and memory, storage and backups are not shared with multiple tenants
- 3) Solution should provide the convenience and cost-efficiency of a SaaS (software as a service)-based application with the robustness and broad customization functionality of an on premise system.
- 4) Solution must include the services required for installation, integration, testing, and maintenance
- 5) User authentication must be LDAP compatible and ideally CAS for VCU administrative access
- 6) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data



- 7) Solution must provide minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU
- 8) Solution must run on redundant servers with failover capability
- 9) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery
- 10) Solution must provide the ability to adapt workflow and internal methodologies to existing VCU processes
- 11) Solution must provide Web-based remote and mobile access to all members of VCU community using any industry standard device and browser combination
- 12) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding
- 13) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes
- 14) System outages for maintenance must not be scheduled during normal working hours (Monday – Friday, 6 am – 11 pm, EST)
- 15) Solution must provide scalability and adaptability to meet changing business needs. Customization methodology must be specified.
- 16) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods.

Interface

- 1) System should accept files in tab delimited, LST, TXT and CSV format from VCU Banner HR, Student, and Finance systems sent by secure file transfer SFTP
- 2) System should create files in tab delimited, LST, TXT and CSV format with the ability to have files picked up from a SFTP location by secure file transfer.
- 3) Shall interface with Banner for transactions related to students, faculty and staff. There are three interfaces needed:
 - a) Banner student account transactions passed to Banner Accounts Receivable
 - b) Banner faculty and staff Human Resource transactions passed to Banner payroll system
 - c) Banner financial transaction feeds to Banner finance for non-student, non-faculty/staff payment transactions
- 4) Shall have a certified interface with Banner, CBORD and Blackboard for RAM BUCKS account access and access security validation for VCU CARD based transactions.
- 5) Shall interface at a minimum the Permit Holder database within the University's PARC system :
 - a) All other systems within the Parking Access and Revenue Control System (Facility Management, Transient Fee Collection, Reporting, Barrier Gates, Access Control, Credit Card System, and Event Management System
 - b) University in-house Wi-Fi (IEEE 802.11 a/g/n) system

Authentication

- 1) Access to functions should be limited by assigned user roles
- 2) User ID and password shall be required to access the applications with lockout controls as auto log-off to frequently change passwords

- 3) System should allow LDAP and Local account authentication. LDAP will be used for VCU Students, VCU Faculty & Staff. Local accounts will be used for Non-VCU Employees and Non-VCU Event permit requestors.
- 4) System should have API's available to allow single sign-on using CAS (Central Authentication Service). Single sign-on should be usable from any VCU.edu site to the system's website.

Security

- 1) Shall provide essential security based on access levels. Functions and screens should not be displayed or accessible unless the user has the necessary level of security. For example: A cashier batch should only be accessible to the cashier that opened the batch and others based on security level. Shall allow for user configuration of role privileges and specific individual overrides of standard role security privileges.
- 2) Segregation of duties should be an integral internal control, so that a single individual cannot have access to divert resources.

Mobile App

- 1) Contractor shall provide a web application optimized for mobile devices so that faculty, staff, students and visitors can locate parking lots and decks, and determine if spaces are available. Ideally, the mobile parking application will be included in the official mobile application for the University. If a native mobile application (iOS, Android or BlackBerry) is available, Contractor shall agree to the Banner, CBORD and Blackboard Mobile non-disclosure agreements and use the Banner, CBORD and Blackboard Mobile Software Development Kit (SDK) so that the parking app can be included in the official mobile application for the University.
- 2) For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. The VCU mandate is that no payment card information will be stored on any VCU systems at any time.
- 3) Mobile application should include the ability for a user to update their account or parking permit.

1.8 General Financial Management Function

1. Shall provide the financial functions of payments, service fees, deposits, credits, adjustments and reversals for accounts with quick links and full detailed information displayed on screen for Parking staff and administrators with complete audit trail.
2. The faculty/staff decal purchases may be purchased by immediate payment through payroll deduction or, spread out over several months as a payroll deduction.
3. Online payment processing services that will interface with a system for customers to pay for citations, parking permits and event permits.
4. Fully support hardware devices that fully integrate with the PC based parking management software system
5. Cash receipts shall be managed in daily batches created by individual cashiers. General ledger entries will be automatically imported into the General Ledger system for posting at regularly

scheduled time periods. The file will be created by the software quoted in this RFP.

6. Capable of accepting updated data in proper format from internet based payment systems
7. Update all files and refresh screen displays as soon as an update is completed for all users on the administrative side.
8. Shall display real time balance on each cashier's screen of cash and check payments Needs to have a balancing component, that will allow the cashier to compare funds in the drawer, with amounts entered in the system's cashiering function, and a supervisor approval component.
9. Shall generate receipt/ transaction numbers for payments
10. Ability to make adjustments for misapplied payments or reverse payments with a complete audit trail
11. Provide an audit trail to track payments by type (cash, check, money order, credit card, RAM BUCKS)
12. Ability to manually apply and remove flags on an account for various reasons
13. Ability for customers to view, print and pay all charges (permits, citations, etc. via internet and to allow for transactions to be charged to student accounts, and to payroll accounts for student/faculty/staff.
14. Shall update all files and refresh screen displays as soon as update is completed and be available to all users
15. Ability to code transactions or provide comments of explanation as to the type and reason for the transaction
16. All changes, adjustments, credits made to any account should create a record with the user's name, date, time stamp and reason code for the adjustment and should not be user-alterable. The record should be easy to retrieve by query / report.
17. Provide approval capability on the administrative side.to include but not be limited to financial overrides and permit sale overrides. Admin users should have the ability to override/approve transactions that they can't complete without approval.
18. Allow administrative staff to monitor and manage users, citations, invoices, payments, reports, user groups, parking lots, and audit system settings
19. System should be able to send mass emails to users with the ability to add attachments created by the applications. The system created attachments should in a PDF format

1.9 Credit Card Processing

1. For the processing of credit card payments, the University is currently utilizing ELAVON Merchant Services Processing Platform.
2. VCU requires that credit card readers be capable of reading mag stripe products; and VCU will require integration infrastructure for NFC cards and EMV smart card with chip & pin technology.

1.10 Parking Permit System - Online

1. Allows users to register and obtain parking permits online by registering their vehicles.
2. Allow users to add multiple license plates per permit for primary, secondary, etc. vehicles.
3. Allow users the ability to change their primary license plate on-line for a permit to another license

plate (vehicle) if needed.

4. Provide for multiple types of permits. Currently, VCU utilizes four permit types
5. The use of physical RFID Permit tags with the ability to use with Citation devices must be possible.
6. The system must allow the use of physical RFID Permit tags as permit types. The ability to use hand held permit recognition software and hardware with the system.
7. System must have the ability to print out and use temporary permits and must meet all relevant anti-forgery standards.
8. System should allow the ability for accounts to have permits changed by users if needed.
9. Permits will need to be purchasable through payment plans, cash, credit cards.
10. The system must allow multiple types of payment plans to be available for permit payments.
11. The system must allow for the transfer of payments to various payment and billing departments of the University.

1.11 RFID Permit Encoding & Supply

1. The RFID Permit shall have an RFID micro circuitry Alien G inlay associated to the Antenna/Reader located at all VCU parking facilities from the PARCS provider.
2. The UHF RFID Permit inlay shall transmit at a 915MHz, EPC Class 1, GEN 2 and is compliant with ISO 18000-6.
3. RFID inlays feature Alien (brand) Higgs-3 silicone chips, which feature a 96-bit (24-characters) factory-encoded Tag ID number, 96-bit EPC memory bank and 512-bit User Memory Bank. The EPC and User Memory banks may be utilized for customer specific encoding.
4. VCU's parking applications utilize the EPC Memory bank, with data encoded to specifications provided by VCU. Custom encoded EPC data usually includes Facility Codes or Prefixes identifying specific lots or garages, followed by sequential Permit Numbers, much like data historically encoded in barcodes.
5. Custom encoded data may be formatted as 4-bit (hexadecimal) code, 8-bit ASCII code, or decimal values.
6. Different reader brands and models offer different defaults and/or options governing how data read from tags is interpreted and/or translated. Acceptable manufacturers of the RFID/Antenna are compatible to ISO 18000-6C and EPC Class 1, Gen 2 standards include the following.
 - Nedap uPass
 - TagMaster XT-3
 - Sirit 4100
 - Rapid Pass MR6011
7. All RFID Permits must be guaranteed to perform satisfactorily in the heat and not to break in the cold and withstand the general intended use with daily handling and transferring. All printing and numbering on permits shall be provided with sun resistant inks that will remain in good legible condition for a period of one (2) years after permit has been in use on vehicle.
8. Contractor to provide 50 TEST samples of RFID Permits to VCU for system testing and compatibility to Antenna/Reader and PARCS network.



9. The RFID Inlay memory chip – must hold 60+ blocks of information containing several fields of info per block, i.e., name, address, Permit #, license plate #, etc.
 - INSIDE MOUNT REPOSITIONABLE DECAL
 - Size: 1.875 X 4.5
 - Prints Both Sides
 - 1 Type / Consecutive Numbering On Front
 - Front Prints In 4-Color Process, All Being The Same Picture
 - Back Prints In 1-Color, All Being The Same
 - Alien G Inlays (ALN-9645) Applied To The Back
 - Encoding Of RFID Inlays
 - Scalloped Liner
10. Repositionable Dry Seal Decals are designed for inside-windshield application and are easy to remove and re-apply to a smooth, contaminant-free interior glass surface.
11. Adhesive - The adhesive shall remain “open” for a period of one year of normal use.
12. Material - 4 mil. clear Polyester with 3 mil. clear matte liner. A tough, flexible, transparent polymer film with a specially treated printing surface backed by a colorless, low-tack (removable) pressure sensitive adhesive, which is protected by an easy-release, moisture-resistant, lay-flat liner which resists curl. The liner is transparent matte PET and is scallop slit for easiest removal.
 - INSIDE SECURITY STICK DECAL
 - Size: 1.875 X 4.5
 - Prints Both Sides
 - 1 Type / Consecutive Numbering On Front
 - Front Prints In 4-Color Process, All Being The Same Picture
 - Back Prints In 1-Color, All Being The Same
 - Alien G Inlays (ALN-9645) Applied To The Back
 - Encoding Of RFID Inlays
 - Scalloped Liner
13. Adhesive - A crystal clear, non-yellowing, firm acrylic pressure sensitive .001 inches thick with high peel and good shear strength. The adhesive must be long aging giving a permanent bond to a flat or curved glass surface. The adhesive must be applied during the printing process to uncured sun resistant inks so that a portion of the ink pigments will migrate into the adhesive, effectively making the inks an integral part of both the base material and the adhesive to further prevent unauthorized transfer. The adhesive must have excellent initial tack and high solvent resistance. The adhesive is to be placed over the decal portion only.
14. Paper - The base material is to be an opaque white book, 50# (Basis 25 x 38-500), with optical character recognition quality surfaces. Normally invisible integral properties formulated in this paper include a chemical indicator for counterfeit protection and detection. Both sides readily accept all printing and writing with typewriter, ball point pen, ink pen and pencil.
15. Liner - The protective liner, which is placed over the adhesive, is to be an easy release, silicone treated Kraft. Liner must have low elongation and high strength. Liner must be translucent so that all face printing, numbers and colors can be easily read without removing or lifting the liner. An opaque liner is not acceptable. The liner, as well as the base material, must not wrinkle in changing humidity and will stay flat at all times. Liner and adhesive must cover entire face of the decal portion. Liner and base material are to stay flat at all time and corners must not curl when liner is removed. The liner must be furnished cleanly slit for easy removal.

TRIPLEX RFID HANGTAGS

Approx. Size: 3 x 5.25" with rounded corners and a special die cut for easy application, to hang from rearview mirror.

Stock: 14 pt Pro Print stock with 10 mil lamination on both sides

Prints both sides

1 Type / consecutive numbering on both sides

Front prints in 4-color process, all being the same picture

Back prints in 1-color, all being the same

Alien G inlay applied to the back under the lamination

Encoding of RFID Inlays

16. Materials - Hangtags will be manufactured on a Triplex material. The hangtags shall consist of three (3) layers. The center layer shall be a single layer, highly filled micro porous, plastic film 14 mils in thickness. The center layer must not delaminate under the demand of normal hangtag applications. The center layer shall be sandwiched between two 10 mil polyester outer layers with an aggressive adhesive. The total thickness of the hangtags will be 34 mils.
17. Weathering Qualities - The triplex construction will exhibit no color change when tested 400 hours AATTC, 16-A method and will develop only minimal curl in sunlight for one 1 year. Minimal curl will be 3/8" in the 2 3/4" dimension when exposed to sunlight in use on an automobile rearview mirror. This measurement is the evaluation of the top of the arc to a place 55 upon which the sample rests.

1.12 Optional RFID Permit Fulfillment Service

1. A service for relaying the permit sale information to the University's parking permit (RFID) provider. When customers purchase their permits online, that information is then batched at the end of the day. That information is sent to the University's third party permit provider who manufactures the permits and mails them direct from their factory.

1.13 Event Parking Reservation and Transaction Processing System

1. Shall be web based software accessible through Internet Explorer, Firefox, Chrome, and Safari browsers.
2. Includes event and valet parking modules
3. Ability to operate in real time over cellular wireless and/or the University hosted wireless network (Wi-Fi)
4. Ability to communicate data to and from management and staff via handhelds
5. Manage multiple events at multiple rates per event and more than one event at the same time utilizing user friendly interface
6. Onsite payment for University event parking may occur 24 hours a day, 7 days a week.
7. Process vehicles quickly and cashier via handheld mobile units processes high volume of credit cards quickly
8. PCI Compliance Certification, and/or PA DSS application certification.
9. Shall not store customer credit card numbers or transactions in the handhelds or system server
10. Shall accept payments by cash, real-time credit/ debit card transactions, pre-paid reservations,

pre-purchased permits or season ticket parking passes

11. Provides two way communication between the server/central office and the handhelds
12. Provides backup system in the event of wireless network failure
13. Provide management reports and automatic management updates
14. Provides access remotely for managers located off-site
15. Tickets issued onsite will be issued in sequential number order and on demand
16. System shall use wireless mobile printers for printing paper tickets or receipts.
17. Provides a VIP module that allows for up to 500 names per event to be treated as VIP giving the parking attendant the ability to see the patron's name and communicate with the patron or other parking attendants
18. VIP module shall allow for VIP lists to be modified and updated in real-time by authorized personnel.
19. Provides handheld access to barrier gate control
20. Prepare event cashier report by transaction, total revenue and activity per cashier with user specific data of time, date and location
21. Communicate cellular wireless and/or Wi-Fi, but shall employ a back-up system that can be employed in the event the wireless network is unavailable.
22. Shall be accessible to managers that are off-site and need to monitor operations remotely
23. Shall integrate with the Pay on Entry equipment located at barrier gate parking lots and decks

1.14 Handheld Citation Device

1. The HH Citation Device shall be an all-in-one rugged handheld terminal equipped with a built-in thermal printer and near field communication (NFC) reader/writer designed for contactless smart cards and radio-frequency identification (RFID) tags.
2. The HH Citation Device shall include a C-MOS Imager for scanning 1D and 2D symbologies, a magnetic card reader, and a color auto-focus digital camera.
3. The HH Citation Device must read data on ISO Tracks 1, 2, and 3 for VCU Cardholder data.
4. The RFID (NFC reader/writer) can be used to verify Permits issued within the system and quickly populate the data fields. Secure Access Module (SAM) slots are available on-board for use if even higher security is required.
5. A 3.7" VGA LCD with touch panel operator screen for high visibility in low light and high light, both indoors and outdoors and has intelligent power demand features.
6. The device is compliant with IP54 dustproof and splash proof standards, and will withstand drops of up to 1.5 meters, making it suitable for deployment in a wide variety of challenging environments.
7. The Handheld Citation Device shall provide the user the following at a minimum:
 - Database File Storage cable of 20,000 students, 30,000 staff and 20,000 ticket records.
 - Quick download of Scofflaw Listing & Permit Database
 - Rechargeable lithium ion 7.4 V, 2000 mAh battery with lockable access door
 - Wi-Fi Enabled (Data push acceptable via Wi-Fi)
 - GPS Enabled

- Bar Code Reader for QR and Code 39
- Operator Stylus attached by industrial cable
- Windows Mobile 6.5 or higher Operating System
- LCD Display for easy viewing
- Internal black and white thermal Printer
- Integral Camera to record violation associated to citation
- Removable 4gb SD Card with lockable access door
- Backlit keyboard
- Heavy Duty Nylon Hardware and Carry Strapping

1.15 Reporting

1. Ability to track by citation by various independent field criteria
2. Ability to track vehicle permits by various criteria
3. Ability to track regulation and enforcement by various criteria
4. Ability to produce Cashiering Reports including by not limited to: cashier closeout reports, transaction reports
5. Ability to produce Parking Services Administration Reports by day, month and year and by facility
6. Ability to produce Parking Services Notices and General Reports
7. Ability to create custom reports when needed against all parts of the database.
8. Ability to have reports scheduled to run at specific times. These reports should have the ability to be emailed to selected users.
9. Ability to run real-time reports against parking lots/decks to gather spacing information.
10. Ability to schedule reports to run from within the system at a selected date and times and by facility.

1.16 Maintenance and Support Agreement

1. Shall cover each system purchased individually or collectively
2. Shall include all hardware / equipment
3. Shall include software support through phone, email, chat, website and on-site technicians
4. Shall include preventive maintenance such as troubleshooting, upgrades, training, performing back-ups and routine checks for maximum performance
5. Upgrades and preventative maintenance shall be handled remotely and after hours, so Parking & Transportation Management experiences little or no down time.
6. Upgrades to software shall be provided to the University as soon as they become available for distribution. This should include Release Notes, Changes, Known Issues and Instructions.

1.17 Installation Requirements

1. Contractor shall install a complete and fully functional system including hardware, software, network installation, all necessary cabling, all data conversion from the existing computerized



system and all future updates to the system. Provide technical support for customization of reports and file formats and the conversion of existing data saved on the current system.

1.18 Data Migration

1. Contractor shall convert all required data in the University's Permit & Citation existing system.

Current Database	4.46 GB
Customer Records	89,142
Vehicle Records	167,866
Addresses	135,085
Permits	193,724
Citations	41,914

2. Contractor shall be responsible for the importing of existing data on the current system to the new system.
3. Contractor shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system.
4. A reference file of the old system account numbers with a link to the new account numbers shall be available in the new system.

Implementation Requirements

- 1) Vendor to provide qualified training staff members that shall assist, consult, install, train and oversee the system implementation simultaneously in multiple facilities.
- 2) Provide a documented implementation plan with reasonable timeline.
- 3) Upon award of the RFP, signing of the contract and within ten (10) days of receipt of the University's purchase order, the successful Contractor shall provide a complete project timeline to the University's Parking & Transportation Management Department and the Purchasing Department.
- 4) Provide integrated implementation process that incorporates on-line tools, on-site and web based technical services and on-site consultation.
- 5) Ability to interface with existing University systems: Banner, CBORD and Blackboard, Wi-Fi and the other PARC systems.
- 6) Assist in the development of reports prior to implementation.
- 7) Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up.

Testing Requirements

- 1) The system shall be tested thoroughly by the University prior to final acceptance. A minimum of four (4) weeks of testing shall be conducted. The University's current system and the new production system and new test system will run concurrently during the test period. In addition to the production system, a test system shall be provided to allow for testing of changes, upgrades, new maintenance to the system, while the current production system is still functioning and allowing for adequate time to test for any issues with the new system.

1.19 Training

Vendor to provide a comprehensive on-site training program as part of the proposal. The training program shall outline the expected number of personnel for this application and schedule proportionate to this installation.

Vendor to provide hourly fee for training.

At a minimum, Vendor will provide pricing for the following:

1. Provide eighty (80) hours of on-site instructions to VCU staff. Specific allocation of training time to be determined by VCU.
2. Instructions shall include but not be limited to, use of all Permit and Citations Software and products, use and operations of control of automatic report generation, production of "on demand" reports, specialized report creation, and methods of controlling revenue and auditing Permits and Citations with the system specified.
3. Include training and assistance to the VCU-OTS with interfacing the Parking Access & Revenue Control System with the VCU web site for real time activity posting, as well any other IT issue as it relates to the PARCS. Coordinate schedule with VCU to accommodate shift schedules.
4. Provide an additional sixteen (16) hours of on-site training, in any area, at VCU's request, during the first twelve (12) months after system start-up.
5. Provide an additional eight (8) hours of on-site training, in any area, at VCU's request, within twelve (12) months after system acceptance.
6. Contractor shall provide (2) two complete product Service & Support technical manuals on all Permit and Citation products in print and a CD in PDF format.
7. Contractor to provide online webinars for all future training.
8. Contractor shall provide (2) two complete Permit & Citation Software Operating & Support technical manuals on all Software modules in print, and a CD with all manuals in PDF format.

1.20 Qualifications and Standards

1. Respondent shall provide, in writing, a statement that the Respondent has been regularly and continually engaged in business for a minimum three (3) years engaging in furnishing, delivering, servicing, repairing and installing, equipment, goods, or services required in this RFP.
2. Provide the names, qualifications, and experience of personnel proposed for the project. Resumes of staff to be assigned to the project may be used.
3. The Contractor must have a Class A Contractor's License with the appropriate specialty classifications issued by the Virginia State Board of Contractors. Submit a copy of your Class A Contractor's License.
4. A performance bond shall be submitted in the amount of one hundred (100 %) percent of the Contract price if requested by the University. This bond will be used to secure the successful completion of the project and payment of the Respondent's subcontractors should the successful Respondent default for any reason. Respondent required to provide a bond, shall submit a letter from a bonding agent licensed to do business in the State of Virginia stating that if the offering company is the successful Respondent, said bonding agent will furnish a 100% performance and payment bond covering and including products and service for the duration of



the Contract period. Said bond shall be subject to the approval and acceptance of Virginia Commonwealth University. If requested, the bond shall be furnished to the University Purchasing Department within forty-eight (48) hours after receipt of the purchase order. The premium of the bond shall be paid by the successful Respondent.

1.21 PCI Compliance/Safeguarding Obligations

1. If the successful Contractor's system accepts credit cards for products and services in this RFP utilizing the vendor's own merchant account, the successful Contractor system complies with all applicable Payment Card Industry Data Security Standards ("PCI Standards" and or PA DSS standards) and Contractor shall defend and hold The Board of Trustees of Virginia Commonwealth University, its designated representatives and their officers, agents and employees, harmless from all claims, liabilities, damages, or judgments involving a third party, including costs and attorney fees, which arise as a result of a Contractor's failure to meet any of its obligations under such PCI Standards. Contractor shall fully cooperate with VCU in all reasonable requests related to PCI Standards compliance. Contractor shall submit a copy of its annual certification of PCI or PA DSS compliance or provide a notification of compliance as shown on the Visa's Global Registry of Service Providers-PCI DSS Validated Entities compliance list.
2. To the extent the Contract which may be awarded by this RFP will allow the Contractor to have access to customer information, as that term is defined in 16 C.F.R. §314.2(b), which is required to be protected under the Gramm-Leach-Bliley Act (15 U.S.C. §6801-6809) as well as credit card information received in the course of business by the University, then the Contractor agrees to comply with and adhere to the terms and provisions described in General Terms and Conditions No. 33 which shall form a material part of the awarded Contract.

1.22 Security/ Backup/ Recovery

1. Describe in detail all security features for each of the systems including cashier batch access, any and all audit trails provided, segregation of duties, file transfer process and access to lockout controls.
2. Describe the system backup process. Can backups be completed in a dynamic mode so that the system can be operational 24 hours per day? What backup schedule is recommended? Describe the automated backup features that allow rapid and unattended system and data backup operations on a user-scheduled basis.
3. Describe the change logs for provider/user additions, deactivation, security, profile authorizations, etc.
4. Describe available options for single sign-on authentication of users in sufficient detail to ensure that the product's single sign-on solution provides an acceptable level of system security.
5. Discuss data archiving and restoring from archive within all applications of the software. What are the capabilities in restoring from archive? What tools/media are used for archiving data?
6. With regard to disaster recovery, please completely and comprehensively answer the following:
7. Describe your proposed disaster recovery plan to safeguard source code and ensure that the proposed system is recoverable in the event of a disaster at the headquarters of your facility or that of any of your company's technology partners.

8. Specifically describe what your disaster recovery plan would be for Parking Services to ensure that our data is safe and secure in the event of a disaster.
9. Where is the location of your disaster recovery site, and what are your disaster recovery plans?
10. Describe your database recovery processes.

1.23 Credit Card Payments and Compliance Questions

1. Describe in detail and provide a flowchart of the entire credit card process including all third party appliances and software.
2. Is the process for credit card processing PCI DSS and/or PA-DSS compliant? Describe your cardholder processing systems' Payment Card Industry (PCI) Payment Application.
3. Does the implementation, including any required auxiliary servers, store the card holder PAN on VCU hosted servers for any length of time at any time during the credit card payment process?
4. Please provide information on where the University can verify your application and / or payment gateway compliance - on the PCI Standards validated payment applications list or on the Visa's Global Registry of Service Providers – PCI DSS Validated Entities compliance list?
5. For implementation of your solution that includes VCU hosted payment card processing solutions, does your application store card holder PAN on disk located on our network at any time or do you process and transmit cardholder data to a payment gateway?
6. Does your VCU hosted payment card processing solution interface with any other system that would also be hosted on the VCU network that stores cardholder PAN on disk located on our VCU network at any time?
7. For implementation of your solution that includes VCU hosted payment card processing, please provide a detailed diagram that includes the flow of cardholder data from the user entry through your system, out to the payment gateway, and merchant services processor for verification, and back to your application.
8. For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. Respondents must specify how the application will meet PCI compliance for payments.
9. Describe in detail and provide a flowchart on how the credit card payment is relayed in the system that you are proposing from the handheld devices in remote locations to the PARC system

Training Program Questions

- 1) List the number of University employees you propose to train and indicate if training proposed will be on-site at the University.
- 2) List any resources you would require the University to provide in order to conduct training on campus, including extra software, licenses, etc.
- 3) Describe your training methodology for system administrators, approvers, and users for both the initial implementation and ongoing training.
- 4) Provide a list of training centers.
- 5) Provide a list of training agendas.
- 6) Will training materials customized for the University be provided? Can the materials be copied for use by the University personnel subsequent to the initial training?



- 7) Can other system manuals and documentation be copied for use by University personnel?
- 8) Is additional on-line training available at the customer's convenience or through webinars?
- 9) Provide your training schedule
- 10) Describe on-going training programs offered after conclusion of the implementation and/or acceptance period (e.g., for staff re-training after upgrades/enhancements or other system changes). Specify when costs for additional training are included in the annual maintenance and support fees and when they are not.

Support and Maintenance Questions

- 1) Provide a 2 YEAR WARRANTY PERIOD along with a precise description of support/maintenance program. Include annual cost for the five (5) years following for all software and hardware including:
 - Hours of Support – On Weekdays? On Weekends? On Holidays? 24/7?
 - Methods Of Support – E.G., E-Mail, Phone, On-Line Chat, Remote Access, In-Person
 - Severity/Priority Classification – I.E., Severity Levels Of Problems/Issues
 - Response Times – During Regular Business Hours, During Off Hours, On Weekends
 - Problem Escalation/Triage And Issue Resolution Procedures
 - Customer Responsibilities/Duties
- 2) If not included above, which of the following support features are available:
 - Toll-Free Hotline
 - Remote Monitoring
 - Remote Diagnostics
 - Training Tutorials
 - Web-Based Support Tracking
- 3) Are there multiple levels of support available? (5x8, 7x8, 7x24, etc.) Describe the support available for the proposed solution. What is the model of support recommended by your company for the University?
- 4) Include a chart of the escalation procedures for continuing or critical issues. Issues should not remain unresolved at Tier 1 more than six (6) hours and should not remain unresolved at Tier 2 more than three (3) days.
- 5) What are your hours of operation for support during Central Standard Time weekdays, weekends and holidays?
- 6) What are your guaranteed and documented response times for support turnaround?
- 7) Will the University be assigned dedicated support personnel familiar with our requirements and installation?
- 8) How many versions of your software are you currently supporting?
- 9) Are there limitations to the number of University staff who can contact technical support? If so, how many University staff can contact support? Who do you recommend be University contacts?
- 10) If not included above, describe problem reporting software and tools. Are they available via the Internet? Can a list of outstanding problems and enhancements by client be viewed on-line and downloaded?
- 11) Describe the technical support staffing and systems, including specifics about the following:

- Skill sets of support personnel, including background, training, experience/qualifications, and average tenure with the company
 - Organization and structure of support services/resources
 - Number of support resources located at corporate headquarters, in field offices, and/or in other locations
 - Specific locations where support personnel for Parking Services would be located
- 12) Describe the support process for evaluating and fixing “bugs” or problems in system. Also, how are problem analysis and resolution coordinated with the contractors of systems with which the proposed PARC system interfaces and other 3rd party software products?
- 13) Describe procedures to be employed in the event of unexpected system downtime.
- 14) What is the range and average system downtime (both scheduled & unscheduled) for your clients’ systems?
- 15) Describe the support procedures for the following, both during the acceptance testing period and after the system is in production:
- Tracking of problem reports
 - User notification of problems, including detailed descriptions of actions required for resolution
 - Tracking of all changes/modification/customizations made to the system

Installation / Testing / Implementation Questions

- 1) Does the product license allow for the installation of test and development instances without additional cost?
- 2) Describe your installation, testing and implementation process and a detailed timeline for the project including:
 - Pre-implementation planning, e.g., workflow analysis
 - Hardware preparation/configuration, installation, & testing
 - Software installation & testing
 - Interfaces development, implementation, & testing
 - Data migration/conversion from our current Permit Parking system
 - Training (cover more thoroughly in Section X)
 - Customization of screens/templates/reports/forms/clinical content/etc.
 - Go-Live and post Go-Live follow-up
- 3) Provide a copy of an example of the completed documentation history of actions performed, issues identified, resolution and acceptance of an installation at a site comparable to VCU.
- 4) Provide a sample implementation checklist.
- 5) What is the method for assigning implementation consultants to a customer account?
- 6) Describe the testing database available in your systems? Can new software be loaded and tested in the testing database before it is loaded into the live production system?
- 7) Describe the capability of the proposed system to perform the following functions, both during the acceptance testing period and after the system is in production:
- 8) Tracking of problem reports, client access to such reports, detail level of actions required for resolution.
- 9) Tracking of all changes/modifications/customizations, client access to such reports, detail



- level of actions required for resolution.
- 10) Describe client workstation virtualization implementation.
 - 11) Within what timeframe after contract signing can your staff/resources begin working on the project?
 - 12) Describe the plan for contractor staffing and time commitment on-site at Parking Services during the implementation period.
 - Be specific as to identity/role of all staff to be involved, their implementation experience and qualifications, and the exact time periods during which they will be on-site.
 - Specify how many personnel and at what level within the company (i.e., identify roles and experience at company and with product) will be involved.
 - Will implementation team be dedicated only to the VCU Parking System implementation project through Go-Live and for a time period afterwards or assigned to other clients in addition to VCU?
 - 13) Describe the expectations for VCU Parking personnel resources that will need to be available to participate in the implementation process. Be specific as to identity/role of needed personnel and estimated time commitment of each that will be needed.
 - 14) Describe the level of support which will be provided immediately prior to, during, and immediately after the “Go-Live” phase.
 - 15) At what point during the implementation process will a full test version of the proposed software be available for VCU personnel to access and thoroughly operate in a training mode?

Data Migration Questions

- 1) Specify the details of how data from VCU Parking’s current system will be converted/migrated into the proposed system, including the following:
 - Plan and methods for data extraction – who will be responsible, contractor, University, or 3rd party?
 - If contractor does not provide data extraction services, include 3rd parties with whom they have worked previously.
 - estimated timeline for completion within the implementation process
 - All costs associated with this process must be identified on the Quotation Sheets
- 2) Provide references of existing customers that your company has migrated to for Permit Management software.

Update and Upgrade Questions

- 1) How often are version updates to your software typically released?
- 2) Are version updates included at no additional charge to customers?
- 3) What is the methodology utilized to apply version updates?
- 4) How is affected by version updates to the software?
- 5) What responsibilities for software upgrades are assumed by the University?
- 6) Supply a copy of your upgrade and development calendar including all hardware and

software components, applications and third party services during the next five (5) years.

- 7) Provide a test platform and method for implementing upgrades, especially for modules that are customized.
- 8) Provide a copy of your Quality Assurance Guidelines for testing new software releases.
- 9) What is the release version that would be implemented at VCU?
- 10) What is the expected timeframe for release of the next product version which requires a different platform or an operating system upgrade?
- 11) Have there been major enhancements to the product in the last year, and if so, please describe them?
- 12) List major enhancements planned for the coming year.
- 13) How many levels of software releases are currently supported?
- 14) What happens if upgrades negatively affect client's system? What is the plan to restore system to its state prior to the upgrade?

1.24 Customization

1. Describe the customization options (format/ content) of the screens, forms, reports, etc. available in the proposed PARC system for the University.
2. Describe the tools utilized by end-users in the customization process
3. Describe the extent of training and programming skills needed to become proficient in customizing the software of the system
4. Does your company require access to VCU Network 365/24/7? How frequently are updates, patches, etc., normally performed? Please explain.
5. Describe all customization options (format/content) of screens, forms, reports, etc., available in the proposed PARC system.

1.25 Statement of Work

1. Provide a Statement of Work outlining tasks to be performed by the respondent, the University and any third party contractors.

1.26 Third party services

1. List the names of any technology companies that your organization is partnered with, the nature of your relationship, and the value that it brings to your proposed solution and ultimately to our organization.
2. Describe your overall approach to developing, testing, implementing, and upgrading system interfaces to 3rd party systems.
3. Detail any limitations/issues regarding the willingness or ability to interface/integrate the proposed system with other 3rd party automated systems.
4. Please indicate if your firm offers an Interface Engine product and/or describe your experience with 3rd party interface engine products and the proposed system.



5. If customization is required, describe how this will affect the cost, timeline for development, and support after implementation of the interface.

1.27 User Group

1. Does your company offer an annual forum for customers to learn more about the contractor's products and services, offer training classes and network with other customers?

1.28 Pricing

1. Explain your company's assumptions in determining the cost including:
 - Assumed number of transaction per year
 - Assumed breakdown of mobile payment system usage
 - Assumed growth, year or year

1.29 Company Background

1. List your company's technology and/or distribution alliances and partnerships, including the partner name, address, telephone number, and a brief description of the nature of the relationship.
2. List any current or previous regulatory actions against your company or its officials in the past five (5) years. Include the date(s) of action(s) and resolution.
3. Has your firm or any of its current officials ever filed for bankruptcy protection?
4. Has your firm or any of its current officials ever had tax liens filed in any state or federally?
5. Has your firm or any of its current officials had any judgments against it by any taxing authority within the past ten (10) years? If so, list the dates, name of authority, and disposition.
6. Has your firm been found guilty of any patent or trademark violations in the past ten (10) years? If so, provide complete details including case number and jurisdiction.
7. In what state is your firm incorporated and where is its headquarters located?
8. List any names your firm has previously operated under since beginning operations.

1.30 Reporting

1. Describe the systems reporting tool and any premade reports. Does the system allow ad hoc reports and can these reports be built within the system?
2. Describe the reporting tool with canned reports along with ad hoc reports.
3. Will VCU have access to database to write custom reports?
4. Does the system allow for reports to be built outside of the system and imported in? If so what type of formats can be imported in?
5. If the contractor is acting as the merchant, taking payments via their own merchant services account and proposing to pay VCU's portion after the fact, Contractor shall provide the following reports for any revenue collected by the Contractor or their third party service:
 - Monthly revenue report showing the number and type of permits sold, itemized by rate and

- the point of sale such as Transportation Services Office, website or mobile app
 - Special event records including the number of event permits sold for each location and the revenue for each location identifying the event and location
6. Describe the reports available with how the system sets the various parking zones, decks, and lots with regards to enforcement and permit regulation.

1.31 Financial Proposal

1. The Financial Summary shall contain complete financial offer made to the University fully describing all aspects of the proposal and the costs including hardware/equipment, Permits, software, software license, support/maintenance/upgrades, customization and modifications, system manuals and documentation, training, data conversion, any transaction and remittance fees as well as professional services to be provided by Contractor and any third party initially and per year beyond those listed in this RFP. Describe in detail the financial proposal you are offering the University for all Products and Services to be provided. Any transaction fees paid by VCU shall be clearly identified.

Proposals are requested for University hosted and contractor hosted systems. Each host option should be treated as a separate pricing proposal. In addition to the host options, the University is requesting proposals for all new equipment/ hardware devices and for using the existing equipment/hardware.

Each pricing proposal shall include an itemization of all costs to the University.

- a. Respondents should be creative in presenting various alternatives for providing services at the least possible cost to the University. The University will select the financial option that best meets the overall needs of faculty, staff, and students.
- b. It is the Respondent's responsibility to verify any information, measurements and obtain any clarifications prior to submitting the bid response. The University is not liable for any errors or misinterpretations made by the Respondent in response to this Solicitation.
- c. The quoted price involving equipment shall include all necessary accessories to make a complete functioning unit unless specifically stated in the Solicitation.
- d. Quoted price shall include all travel expense associated with the installation, training and implementation of the system.
- e. What is the discount(s) applied to the cost of the products. Confirm that this is the minimum discount for all product purchases throughout all of the terms of the contract.
- f. Include an example of your firm's standard software support/maintenance agreement.
- g. If using a third party credit card processor/gateway, detail all credit card transaction fees associated.
- h. Quote hourly rate for work not covered by maintenance agreements

References and Implementation Schedule

- 1) Respondent shall supply names, addresses, and telephone numbers of three (3) business references from the management of other higher education customers for whom the contractor has provided products and services similar in size and complexity to VCU, and to those outlined within the RFP specifications. The Respondent shall grant permission to the University to contact the references. If prior permission is required of the business

reference in order to provide this information, the contractor shall obtain permission to include this information with the proposal. For each reference, include:

Name, address, phone number, fax number and email addresses of the Reference similar

- Number of users
 - Date of contract commencement
 - Go live date with system
 - Current version
 - Brief description of software & hardware configuration, including number & type of workstations, scanners, printers, & other system components
- 2) Name and contact information of the individual(s) in the reference's IT Department, so that the University can contact for further information.
 - 3) Respondent shall provide an implementation and transition schedule for the proposal submitted.


Other Additional Information

- 1) Please provide any additional information that the Respondent feels should be considered when evaluating their proposal.
- 2) Respondent may present any creative approaches that might be appropriate. The Respondent may also provide supporting documentation that would be pertinent to this RFP.

Attachments to be included with proposal

- 1) Your company's insurance certificate(s)
- 2) Security Certification

1.32 Price Format

					
Permit & Citation Management Purchase Program					
Hosted Service <input type="checkbox"/>		VCU Hosted <input type="checkbox"/>		Hybrid <input type="checkbox"/>	
Product Description	Qty	Program Costs			Delivery Schedule
		Total Initial Purchase	Total Year #2	Total Year #3	
Permit Management Software	1	\$ -	\$ -	\$ -	120 Days
WorkStation License	10	\$ -	\$ -	\$ -	120 Days
Annual Hosting Fee	1	\$ -	\$ -	\$ -	120 Days
Business eCommerce Fee	1	\$ -	\$ -	\$ -	120 Days
Data Conversion Costs	1	\$ -	\$ -	\$ -	120 Days
Banner - CBORD Interface Costs	1	\$ -	\$ -	\$ -	
Web Design Service	1	\$ -	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Installation	1	\$ -	\$ -	\$ -	120 Days
Training	1	\$ -	\$ -	\$ -	120 Days
Documentation	1	\$ -	\$ -	\$ -	120 Days
Other	1	\$ -	\$ -	\$ -	120 Days
			\$ -	\$ -	120 Days
Citation Management Software	1	\$ -	\$ -	\$ -	120 Days
Annual Hosting Fee	1	\$ -	\$ -	\$ -	120 Days
WorkStation License	10	\$ -	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Web Design Service	1	\$ -	\$ -	\$ -	120 Days
Other	1	\$ -	\$ -	\$ -	120 Days
			\$ -	\$ -	
Hand Held Citation Devices	12	\$ -	\$ -	\$ -	120 Days
HandHeld Software	12	\$ -	\$ -	\$ -	120 Days
Charging Stations (Single)	2	\$ -	\$ -	\$ -	120 Days
Charging Stations (6 Unit)	4	\$ -	\$ -	\$ -	120 Days
Data Interface Stations	4	\$ -	\$ -	\$ -	120 Days
Data Storage Devices	12	\$ -	\$ -	\$ -	120 Days
Replacement Battery	12	\$ -	\$ -	\$ -	120 Days
Replacement 4GB SD Card	12	\$ -	\$ -	\$ -	120 Days
RFID Permits					
Inside Repositionable Decal	15,000	\$ -	\$ -	\$ -	120 Days
Inside Security Stick Decal	15,000	\$ -	\$ -	\$ -	120 Days
Tri-Plex (Non-RFID) Hang Tags	5,000	\$ -	\$ -	\$ -	120 Days
3rd Party Permit Fulfillment Service	1	\$ -	\$ -	\$ -	120 Days
Total Annual Costs		\$ -	\$ -	\$ -	



SECTION 3 Parking Access and Revenue Control Systems

1.33 Work Included

1. The Work of this Section shall include furnishing all material, equipment, labor, and supervision to install in place a fully operating Parking Access and Revenue Control System as specified herein. Included will be the supply, delivery, unloading, setting, anchoring, electrical and control wiring installation, electrical and control wiring termination, start up and testing the system, and all associated equipment. Also included shall be on-site training for VCU staff as described further in this RFP.
2. No existing equipment or materials of any description, with the exception of booths, fixtures or equipment specifically provided by VCU, shall be re-used. Existing detector loops shall become the technical responsibility of the Contractor.
3. Control wiring is defined as wiring, regardless of medium, required for the communication of data between devices or the control of those devices.
4. Installation of the new system shall include removal of the existing Parking Access & Revenue Control System devices being replaced. Contractor will provide an inventory of equipment that will be removed for VCU's approval prior to removal. The selected Contractor shall remove the existing equipment located within existing lanes and communication and server rooms in order to install the new equipment. All existing equipment remains the property of VCU and shall be removed with care so as to not damage the equipment and keep intact and operable.
5. New concrete islands at the entry/exit lanes for the "D" Deck and "N" Deck will be provided with electrical and communication conduits and wiring to a central location at each facility. The selected Contractor shall submit shop drawings for equipment placement and network wiring approval by VCU or its representative based on the schedule provided within the technical RFP. VCU or its representative shall review the shop drawings and provide comments or approval within ten (10) days of receipt of drawings
 - a. NOTE: ALL PROSPECTIVE CONTRACTORS ARE ADVISED TO INSPECT THE PREMISES TO ENSURE THAT THERE ARE ADEQUATE CONDUIT RUNS AND LOOPS FOR THEIR EQUIPMENT AND SYSTEM. IF ADDITIONAL CONDUIT RUNS AND LOOPS ARE REQUIRED, AN ITEMIZED LISTING OF THE ADDITIONAL CONDUIT RUNS AND LOOPS MUST BE INCLUDED WITH THE PROPOSAL ALONG WITH A FIXED PRICE QUOTE FOR INSTALLATION.
 - b. IN ADDITION, PROSPECTIVE PROPOSERS WILL ALSO INSPECT THE CONDITION OF ALL ENTRY/EXIT DRIVE LANES TO DETERMINE IF CONDITIONS ARE ADEQUATE TO INSTALL EQUIPMENT AND LOOPS.

PROSPECTIVE PROPOSERS ARE REQUIRED TO SUBMIT FIXED PRICE QUOTES FOR ANY REPAIRS OR MODIFICATIONS TO EXISTING CONCRETE ISLANDS AND ENTRY/EXIT DRIVE LANES.

VCU ENGINEERING CONSTRUCTION SERVICES WILL PROVIDE CONCRETE ISLANDS, ELECTRICAL POWER AND NETWORK CONDUIT AND CABLE AS REQUIRED FOR THE "D" DECK AND "N" DECK.

THE CONTRACTOR IS EXPECTED TO OFFER AND PROVIDE A FULLY FUNCTIONING SYSTEM, ACCORDING TO THE TERMS OF THE RFP AND WILL MAKE ACCOMMODATIONS FOR SPECIAL NEEDS OF THEIR SPECIFIC SYSTEM AND TECHNOLOGY TO PROVIDE A FULLY FUNCTIONING SYSTEM AT PROJECT COMPLETION.

ALL CONDUITS SHALL BE CONCEALED WITHIN THE CONCRETE ISLAND OR PARCS EQUIPMENT.

Contractor to Install at Existing Parking Facilities

Contractor shall furnish and install:

- 1) Any additional 120V/208V electrical conduit and wiring as needed between the lane equipment and an electrical panel, through an electrical junction box located nearby each entry/exit locations.
- 2) Any additional data and voice communication conduit and wiring between all lane equipment and the Server. There are junction boxes located at each entry/exit plaza as needed where Contractor can access VCU's fiber optic network for communication with a central Parking Access & Revenue Control System computer, workstations on the network and other Parking Access & Revenue Control System devices.
- 3) Any additional fiber-optic cable installed by Contractor shall be, at a minimum, six (6) strand. Selected cable shall be according to VCU (OTS) Standards
- 4) Necessary interface equipment and connections to provide for transfer of data through VCU fiber-optic network to the system server and other workstations on the network through which access to the system is provided and authorized.

Access to VCU's Ethernet Network backbone for data connection of parking system equipment

- 1) VCU OTS will assign network IP addresses for the Contractor to use.
- 2) All network hardware provided by Contractor shall be manufactured by Cisco. A list of all network hardware shall be provided to VCU OTS for approval prior to purchase and installation.
- 3) The network design for connection to VCU backbone must be submitted to VCU IT Department for approval prior to installation.
- 4) As a system security measure, no input via modem to devices connected to VCU's network backbone shall be permitted at any time.
- 5) Contractor shall obtain VCU's approval for the specific location of any electrical and control wiring junction boxes. Contractor is responsible for providing the connections and circuit breakers in the junction box, and wiring to the equipment.
- 6) Contractor shall detail on Shop Drawings the method of installation for wiring in each lane for review and approval by VCU. The method of installation for electrical and control wiring shall be tamper resistant and shall reduce exposure to accidental or intentional damage by activity within the booths. No loose wiring is acceptable. Conduit and connections shall be finished and any penetrations into the booth walls or other surfaces shall be made water-resistant with proper gaskets at each penetration point to prevent moisture intrusion at the hole or down the thread of mounting screws. Conduits shall not interfere with access to or the operation of any other components of the booth. All wiring and conduit shall meet all NEC requirements.

1.34 Contractor Requirements

1. The parking systems Contractor shall furnish and install a completely operational parking revenue and access control system with all necessary hardware, software and interface components required to make that system fully functional and compliant with the RFP requirements.
2. Contractor must assure that the system will be complete in every aspect, including all equipment



and accessories necessary to perform the functions of the specified systems, and access and revenue control functions regardless of whether those necessary components, devices or software are specifically identified in this RFP. The complete system shall be installed, wired, connected, tested and left in first class operating condition.

3. Unless approved in advance by VCU, primary parking control and revenue control equipment including ticket issuing machines, barrier gates, payment terminals, card readers and lane controllers must be supplied by a single equipment manufacturer to assure quality control, reliability, uniform compatibility and one source service responsibility. Revenue control software may be provided by a secondary source so long as that software has been used, in its current configuration, with the parking control equipment for a minimum of five (5) years at similar parking facilities and under conditions acceptable to the Parking Consultant as proof of established and successful system interface.
4. Any fiber-optic data or fiber-optic voice communications installation shall be performed by technicians certified for fiber-optic installation.
5. All equipment shall be factory finished with proper priming and powder coat finish to suit the environment in which it is to be installed. Final color will be determined and selected by VCU. All equipment enclosures shall be properly gasketed and sealed for weather tight integrity.
6. Contractor must provide full control and interface between the Parking Access & Revenue Control System, its internal facility count system, the variable message signs and VCU website through a VCU OTS web portal or interface for automatic update of space counts and OPEN/FULL status as described in this RFP. These changes must be automatic based on input from the facility count system, subject to manual override provisions required in this RFP.
7. Any deviations from this RFP after award of the contract must be submitted to VCU for review and approval at least thirty (30) days before procurement or installation. Submission of any system components or functional variations shall specifically identify any and all deviations from the RFP, referencing the specific requirement within the RFP by page and paragraph, and commenting on the effect of the deviation(s) when compared to the RFP.
8. Any associated cost reductions or increases must be identified and clearly stated for review and acceptance or rejection by VCU. Submission of alternate systems, components or functionalities, without such specific identification of deviations, is not acceptable and will be rejected.
9. The Contractor must have a Class A Contractor's License with the appropriate specialty classifications issued by the Virginia State Board of Contractors. Submit a copy of your Class A Contractor's License.

Contractor Qualifications

- 1) Contractor must have worked successfully with the approved manufacturer's equipment for a minimum of three (3) years. Contractor shall furnish references and reference contact information for at least five (5) locations where the parking system lane hardware and software systems have been installed in similar sized. "Installed" is defined by the period after acceptance by the client as a completed, functioning installation.
- 2) Contractor shall have a factory-authorized service provider that is capable of providing regular same day service for maintenance and repair of the new access and Parking Access & Revenue Control System.

- 3) Contractor shall provide for trouble-shooting and repair of electrical or fiber-optic problems from a source located not more than fifty (50) miles from VCU.
- 4) Contractor shall show proof that it is able to provide on-site emergency service and repair within a maximum of two (2) hours from notification, 24 hours/day and 7 days a week.
- 5) The Contractor shall verify and show proof, that it is an authorized manufacturer's representatives for the equipment it is proposing to supply under this contract. Contractor must also show proof that it maintains local authorized factory trained service personnel who will be available to provide installation and service support for this contract as required.
- 6) All parts, special tools, and wiring schematics for the new equipment must be maintained and stocked at the equipment Contractor's local office to assure prompt, satisfactory service.
- 7) The Contractor shall be required to provide an inventory of essential spare parts and equipment components to be stored at the installation site for immediate access by any service personnel working on-site. The purpose of such inventory is to provide the capability of repairing a device by replacing the entire device or the failing component from the spare parts inventory to avoid repair delays for shipment of replacement parts. The spare parts inventory shall be the property of VCU.
- 8) The cost for parts and components included in the spare parts inventory shall be included in the Contractor's proposal, itemized by part or assembled component.
- 9) Contractor must make available specialized programming support and assistance for the computer-based systems and components. Local training must be offered to personnel using "hands on" methodology. The programming and training must be made available per requirements set out in this document.
- 10) The equipment Contractor shall observe and comply with all local, state, and national government codes.
- 11) All Contractor personnel shall be fully qualified and trained. Provide the names, qualifications, and experience of personnel proposed for the project. Resumes of staff to be assigned to the project may be used.

1.35 System Description – General

1. VCU's parking facilities, which consist of surface parking lots and parking decks, are currently used by the Permit and transient parkers for short-term (less than one day) in conjunction with the operations of the University.
2. The system includes a facility monitoring system for monitoring the status of all parking control devices and for sending remote commands to those devices.
3. The system includes a facility count system that will maintain an accurate count of vehicles in each facility or sector. The count system will have the capability to automatically turn off/on FULL signs at facility entrances and FULL signs located at the head of entry points in each facility. The count system will also provide count information that can be displayed as space available counts on variable message signs (future) in each Parking Deck and VCU web site using VCU OTS web portal interface.
4. The time for field devices will automatically be synchronized with the master clock in the central server.

5. Multiple credentials will be used for the RFID Permit Parker Program, such as PROX Card, Barcode/QR Card, QR Code by Mobile, or other future credentials interfaced within PARCS. All credentials must have the capability to be linked to one (1) permit/client profile.

RFID Permit Access Control Only Locations

Locations include:

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes
D Deck	MCV	2174	YES	NO	NO	5	5
N Deck	MCV	972	YES	NO	NO	2	2
Bowe	MPC	429	YES	NO	YES	3	3
Henry St. East	MPC	385	YES	NO	NO	2	2
Henry St. West	MPC	370	YES	NO	YES	2	2
Jefferson	MPC	679	YES	NO	YES	2	4
Laurel	MPC	209	YES	NO	YES	1	1
B & B	MPC	194	YES	NO	NO	1	1
Total . .		5409				18	20

Proposed Permit Only Facilities - Equipment Listing:

Facility	RFID Antenna	PROX/BarCode Readers	IP Intercom	Barrier Gate w/UPS	Network FMS & Count System
N Deck	4	4	4	4	YES
D Deck	10	10	10	10	YES
Bowe Street	6	6	6	6	YES
Henry St. East	4	4	4	4	YES
Henry St. West	4	4	4	4	YES
Jefferson St.	6	6	6	6	YES
Laurel St.	2	2	2	2	YES
B & B Deck	2	2	2	2	YES
Total . .	38	38	38	38	YES

- 1) General Description & Features:
 - a) As a primary feature of the PARCS, a turnkey RFID Permit Reader/Antenna, proximity and barcode/QR card readers as in fully integrated access control system shall be provided for all VCU "Permit Parking" locations on each campus.
 - b) The PARCS multiple credential VCU access card system must utilize the existing VCU Proximity Card encoding and shall be fully integrated within the PARCS. All credentials must have the capability to be linked to a one (1) permit/client profile.
 - c) Each public entrance and exit lane for Permit Parkers shall be equipped with:
 - (1) 4" Red/Green Light Lane Control Indicator
 - (1) LED FULL Sign
 - (1) IP intercom sub-station
 - (1) RFID Antenna
 - (1) PROX Card Reader
 - (1) Barcode Card Reader

- (1) Barrier gate
 - (1) UPS Power Controller
 - (2) Vehicle detectors.
- 2) **RFID Permit:** Each vehicle must have an RFID Permit affixed to the vehicle. The RFID Reader/Antenna will be located within the entry lane to read all incoming RFID Permits on each vehicle. The Reader/Antenna shall be an intelligent device and connected to a distributed database network controller that shall retain current data of active access credentials of all Permit holders.
- 3) **VCU Card:** All VCU Permit Holders also have a VCU ID Card that contains multiple technologies for various access and payment systems located throughout the campus. Each VCU ID Card has a 26 Bit proximity ID code, Mag Stripe data on Tracks 1, 2 & 3, and contains an intelligent barcode printed on the surface.
- 4) RFID Reader/Antenna shall be field programmable to the PARCS Site Code and must adapt to VCU RF parking environments to ensure that Permits are read and captured at the appropriate lane. RFID Permit reading causing data crossover or data collisions will not be accepted.
- 5) The Proximity Card Reader and Bar Code Reader shall be housed in one cabinet or enclosure and pedestal along with an IP Intercom substation. Each reader shall update the PARCS database in real-time.
- 6) IP intercom to communicate with any VCU parking office on the PARCS network.
- 7) The Proposer shall design and utilize the existing fiber optic cabling for data and audio (intercom) communication between the field devices and the host system. The field devices shall retain an active card file so that if communication between the field device and the host are interrupted, all Permit holders shall continue to have access privileges. If communication is interrupted and re-established, upon reestablishing communication, the information within the field devices shall be communicated to the host and the database at the host system will be updated for access privileges that have been granted.
- 8) Operational sequence of a Permit holder using the **RFID affixed Permit sticker:** A RFID Permit, located on the windshield of the vehicle, would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would drive slowly into the entry lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will close. Each vehicle must present a valid RFID Permit for the barrier gate to open.
- 9) Operational sequence of a Permit holder using the **PROX card:** A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.
- 10) Operational sequence of a Permit holder using the **Bar Code card:** A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader



would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.

- 11) The access card system shall have an anti-pass back feature as part of the system.
- 12) Gate will not open if an access card is determined to be invalid by the system. A notification will be given to the card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance a parking office Manager shall answer the intercom from anywhere on the PARCS IP Intercom network. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.
- 13) A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a Permit Holder's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.

Permit & Transient (Public Parking) Facilities:

Locations include:

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes
8th Street Deck	MCV	967	YES	YES	YES	3	4
W. Broad St Deck	MCV	960	YES	YES	YES	4	4
W. Carey St. Deck	MPC	726	YES	YES	YES	2	3
W. Main St. Deck	MPC	1101	YES	YES	YES	4	4
Total . .		3754				13	15

Proposed Permit & Transient (Public Parking) Facilities - Equipment Listing:

Facility	RFID Antenna	PROX/BarCode Readers	Entry Station	IP Intercom	Barrier Gate w/UPS	Exit Station	Payment Station	Network FMS & Count System
8th Street	7	7	3	7	7	4	1	YES
West Broad	8	8	4	8	8	4	2	YES
West Carey	5	5	2	5	5	3	1	YES
West Main	8	8	4	8	8	4	2	YES
Total . .	28	28	13	28	28	15	6	YES

General Description & Features of the Entry Lane:



It is expected that all entry lanes will remain open 24 hours per day, 365 days per year.

- 1) Each Permit & Transient entrance lane shall be equipped with:
 - (1) 4" Red/Green Light Lane Control Indicator
 - (1) LED FULL Sign
 - (1) Entry Station-automatic ticket dispenser, push button for ticket
 - (1) IP intercom sub-station
 - (1) RFID Antenna
 - (1) PROX Card Reader
 - (1) Barcode Card Reader
 - (1) Barrier gate w/Visual and Audible Pedestrian Warning System
 - (1) UPS Power Controller
 - (3) Vehicle detectors. The detector loop system, in conjunction with logic within the ticket dispenser, shall provide directional logic to determine the direction of vehicle passage over the loops and alarm for exception ticket occurrences. The Manufacturer shall provide and support three loops to provide directional logic.
- 2) When the entrance lane is "open", the presence of a vehicle over the "A" & "B" detector loop adjacent to the Entry Station - ticket dispenser, shall activate the vend push-button for the ticket dispenser, and when the button is pushed, will cause it to dispense a single ticket. A voice annunciator shall sound until the parker has removed the ticket from the dispenser. The gate shall open automatically with removal of the ticket from the ticket dispenser and shall remain in the "up" position until the vehicle has passed over and cleared a "closing" loop "C" located just beyond the gate arm.
- 3) A Permit parker will utilize their RFID Permit, VCU Prox card or bar code card to obtain access. All credentials are linked to VCU ID Permit Holder as one account.
 - a) Operational sequence of a Permit holder using the **RFID affixed Permit sticker**: A RFID Permit, located on the windshield of the vehicle, would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would drive slowly into the entry lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will close. Each vehicle must present a valid RFID Permit for the barrier gate to open.
 - b) Operational sequence of a Permit holder using the **PROX card**: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.
 - c) Operational sequence of a Permit holder using the **Bar Code card**: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader would obtain the card data and determine the current



authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.

- 4) The access card system shall have an anti-pass back feature as part of the system.
- 5) Gate will not open if an access card is determined to be invalid by the system. A notification will be given to card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance; a parking office Manager shall answer the intercom from anywhere on the PARCS IP Intercom network. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.
- 6) A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a Permit Holder's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.
- 7) The entrance lane gate shall close automatically after the vehicle has passed over the closing detector loop. The circuitry shall be such that the entrance cycle of a vehicle shall be completed before the system will accept the entry of another vehicle through the same lane.

Transient & Permit Exit Lanes - Description of General Operation

- 1) Express Exit Lane Payments
 - a) Lanes equipped with an Exit Station shall enable customers, with valid credit cards, to process their tickets at the exit without first going to the Automated Payment Station to complete the payment process. This is also known as "Express Exit Lane Payment".
 - b) When the lane is open, the lane status light shall display a green status unless overridden by the Manager.
 - c) The Exit Station in the lane shall be inactive when there is no vehicle on the arming loop adjacent to the Exit Station.
 - d) When a vehicle is detected on the arming loop, the Exit Station shall be activated.
 - e) When a customer inserts the parking ticket into an insertion slot on the front of the Exit Station, the lane device will "park" the ticket internally and display amount due and await insertion of the customer's credit card.
 - f) After the customer inserts a valid credit card, the Exit Station verifies that the card is valid and returns the card to the customer.
 - g) After the customer removes the credit card, the Exit Station will submit a credit card charge via communication lines to the central computer or dedicated credit card server.
 - h) Upon approval of the transaction from the host, the Exit Station prints and issues a receipt.

- i) Upon removal of the receipt, the Exit Station opens the gate to allow the customer to exit.
 - j) When the customer vehicle has passed over and cleared the closing loop, the gate returns to the down position and the Exit Station resets for the next transaction.
- 2) A Permit parker will utilize their RFID Permit, VCU Prox card, or bar code card to obtain access. All credentials are linked to VCU ID Permit Holder as one account.
- a) Operational sequence of a Permit holder using the RFID affixed Permit sticker: A RFID Permit, located on the windshield of the vehicle, would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would drive slowly into the exit lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will close. Each vehicle must present a valid RFID Permit for the barrier gate to open.
 - b) Operational sequence of a Permit holder using the PROX card: A Permit vehicle would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.
 - c) Operational sequence of a Permit holder using the Bar Code card: A Permit vehicle would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.
- (1) The access card system shall have an anti-pass back feature as part of the system.
 - (2) Gate will not open if an access card is determined to be invalid by the system. A notification will be given to card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance; a parking office Manager shall answer the intercom at the parking office. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.
 - (3) A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a card's activity, a lane's activity and other system data that VCU may review for

analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.

- d) The exit lane gate shall close automatically after the vehicle has passed over the closing detector loop. The circuitry shall be such that the exit cycle of a vehicle shall be completed before the system will accept the exit of another vehicle through the same lane.

Event Parking Reservation and Transaction Processing System

- 1) Event Reservation System shall be web based software accessible through Internet Explorer, Firefox, Chrome, and Safari browsers. Include all scheduled Events and data.
- 2) Ability to operate in real time over cellular wireless and/or VCU hosted wireless network (Wi-Fi).
- 3) Ability to communicate data to and from management and staff via handhelds.
- 4) Manage multiple events at multiple rates per event and more than one event at the same time utilizing user friendly interface.
- 5) Onsite payment for VCU event parking may occur 24 hours a day, 7 days a week..
- 6) Process vehicles quickly and cashier via handheld mobile units processes high volume of credit cards quickly.
- 7) PCI Compliance Certification, and/ or PA DSS application certification.
- 8) Shall not store customer credit card numbers or transactions in the handhelds or system server.
- 9) Shall accept payments by cash, real-time credit/ debit card transactions, pre-paid reservations, pre-purchased permits or season ticket parking passes.
- 10) Provides two way communications between the server/central office and the handhelds.
- 11) Provides backup system in the event of wireless network failure.
- 12) Provide management reports and automatic management updates.
- 13) Provides access remotely for managers located off-site.
- 14) Tickets issued onsite will be issued in sequential number order and on demand.
- 15) System shall use wireless mobile printers for printing paper tickets or receipts.
- 16) Provides a VIP module that allows for up to 500 names per event to be treated as VIP giving the Parking Manager the ability to see the patron's name and communicate with the patron or other Parking Managers.
- 17) VIP module shall allow for VIP lists to be modified and updated in real-time.
- 18) Provides handheld access to barrier gate control.
- 19) Prepare event cashier report by transaction, total revenue and activity per cashier with user specific data of time, date and location
- 20) Communicate cellular wireless and/or Wi-Fi, but shall employ a back-up system that can be employed in the event the wireless network is unavailable.
- 21) Shall be accessible to managers that are off-site and need to monitor operations remotely

1.36 Operating Conditions

1. Equipment shall be designed, fabricated, and installed to operate effectively under the climate and conditions to which the equipment will be exposed. In this case the conditions of Richmond, VA. All equipment is for exterior use and will be exposed directly to weather, including cold, heat,

rain, snow and ice.

- a. Ambient Temperatures: -10°F to 120°F
 - b. Humidity: 0% to 95% (non-condensing)
 - c. Rain: Blowing Rain & Snow with 100 mph Gusts
 - d. Dust: Blowing dust and fine particles
2. Without excluding other measures necessary to protect the equipment and keep it operating properly, Contractor will provide self-contained heating and cooling devices for the Parking Access & Revenue Control System. If these devices do not operate to VCU's satisfaction within the warranty period, they shall be repaired, replaced or replaced with more effective devices by Contractor at no cost to VCU.

It is recognized that certain parking access and revenue control equipment may require special electrical power and grounding considerations. If required for the parking and revenue control equipment provided, the Contractor of the Parking Access & Revenue Control System shall include in the bid amount, the cost to provide and install voltage stabilization modules or devices to protect each component from normal voltage variations.

Quality Control

- 1) Contractor of the Parking Access & Revenue Control System shall provide an experienced field representative to meet with VCU or its designated Electrical Subcontractor, before any work begins, to review construction plans as they relate to Parking Control Equipment, to explain details or precautions necessary to assure that all parking and revenue control equipment, and in particular, detector loops will work properly and to determine that all required conduits and wiring are properly laid out.
- 2) The Contractor shall assume total responsibility for proper installation and operation of all components within the system.

Transportation and Handling

- 1) Contractor shall be responsible for all transportation, handling and safe storage, including any associated costs, for all equipment and materials. Without limiting the generality of this responsibility, the Contractor shall:
- 2) Deliver equipment to the site packaged to prevent damage and marked for easy identification.
- 3) Store equipment and materials in a clean, dry location protected from damage.
- 4) Replace damaged equipment and materials at no cost to VCU.
- 5) Where new construction will take place, including construction of new equipment islands, Contractor shall deliver promptly to the site items required to be built into the concrete so they may be built in as the work progresses.

1.37 Warranty/Service Agreement

1. Provide Manufacturer's Warranty
 - a. Warranty on the full Parking Access & Revenue Control System shall be for TWO YEARS,

including all labor, materials and expenses. Warranty period shall include all scheduled maintenance and cleaning as recommended by the manufacturer.

- (1) Warranty shall commence when equipment is 100 percent operational and acceptable to VCU and Consultant, as approved in writing by VCU in accordance with the Acceptance provisions of this RFP. There will be no partial acceptance dates; only one final system acceptance date will be established.
 - (2) The warranty service shall include all parts and labor necessary to provide preventative maintenance, repairs and adjustments to keep the full system, including all field devices, central computer, supporting hardware and software, in first class working order for the duration of the service period.
 - (3) Contractor shall provide for troubleshooting and repair of electrical problems from a source located not more than fifty (50) miles from VCU.
 - (4) Business Hours are defined as the period of 0600 ~ -2200, 365 days a year. The designation of Business Hours affects warranty service work only as specifically described in this section.
2. Correction of MAJOR system failures:
 - a. MAJOR system failures shall be defined as device, central computer, communications or software failures that render any lane inoperable or prevent proper accounting and reporting of transactions or revenue.
 - b. Contractor shall maintain all system equipment during the warranty period such that any MAJOR equipment failures shall be serviced and the lane restored to full operation within two (2) business hours following notification by VCU or VCU's designee.
 3. Correction of MINOR system failures:
 - a. MINOR system failures include all failures of equipment, software or communications that does not cause the closure of a lane and does not compromise the revenue control integrity of the system.
 - b. Contractor shall maintain all system equipment during the warranty period such that any MINOR equipment failures shall be remedied, within eight (8) Business Hours, following notification by VCU.
 4. Failure of the central computer or on-site components of the credit card processing system that renders normal processing of cash transactions or credit card charges inoperable shall be considered a MAJOR failure and shall be remedied within two (2) hours notification if such notification is given within the service period of 0600 ~ 2200. Such failures shall be remedied within three (3) hours of notification if that notification occurs outside of the standard service period. These timeframes shall not apply if the cause of the failure has been clearly identified as a system or communication problem at the clearinghouse over which the service provider has no control.
 5. Service Response Times and Penalties:
 - a. Contractor shall respond to any calls for service from VCU or VCU's designee within fifteen (15) minutes of the attempted contact by designated method as long as the attempted contact occurs during Business Hours.

- b. Contractor shall respond to any calls for service within one hour of attempted contact by the designated method if such contact is initiated outside of Business Hours.
 - c. VCU shall withhold a retainage from the equipment purchase contract in the amount of Ten Thousand Dollars (\$10,000) which shall be paid to Contractor at the expiration of the Warranty Period less deductions at a rate of \$75 per hour for each hour, or fraction of an hour, that Contractor fails to commence service on-site within the above described time limits. The deduction shall also apply to failure to respond to attempted contacts within the one (1) hour time limit prescribed below.
 - d. Contractor shall provide VCU with a means of contact, which will ensure a live (not recorded) response (voice or in person) within fifteen (15) minutes during Business Hours and one (1) hour outside of Business Hours -24 hours a day, 365 days a year. Contractor may utilize a third-party paging service to provide documentation of contact and response times.
- 6. Warranty shall include preventative maintenance cleaning, testing, and minor repair no less than once per calendar quarter or as specified by the equipment manufacturer.
 - 7. Warranty shall cover all equipment furnished under this RFP - both manufacture and installation, excluding misuse, vandalism or casualty.
 - 8. The Proposer must commit to support the PARCS for five (5) years after warranty period. The support shall be the same preventative, routine, and emergency services as previously described. The Proposer shall propose to VCU a base price (first two (2) years) for the maintenance service agreement. For the remaining five (5) years, each subsequent year's price shall be increased over the previous year by the Consumer Price Index (CPI-W) up to five-percent (5%). The CPI applied would be the then current CPI on the contract anniversary. Under no circumstance shall the PARCS Contractor's fee for maintenance services be increased more than five-percent (5%) over the previous year. Use of PARCS Contractor provided post-warranty maintenance will be at the sole discretion of VCU.
 - 9. The PARCS Contractor shall guarantee that VCU's annual maintenance prices shall be protected with continued availability of system components from the manufacture for a five (5) year period. On-site dedicated, full maintenance services shall be at the guaranteed maximum annual cost to VCU. The on-site technicians shall work out of an area provided to the PARCS Contractor at VCU. This includes maintenance service for all equipment and software, and includes but not limited to, spare parts, materials, labor, software, testing equipment, tools, etc. necessary to fully support the PARCS.
 - 10. Full maintenance shall be available 24 hours a day, 7 days a week, and 365 days a year. The same response times as stated in the Technical RFP shall be maintained throughout the life of the maintenance agreement.
 - 11. Manufacturer shall warrant that spare parts and service will remain available for a period of not less than ten (10) years from the date of final acceptance. The full service life is not contingent on a service or warranty agreement with the Contractor.

User Group

- 1) Does your company offer an annual forum for customers to learn more about the contractor's products and services, offer training classes and network with other customers?



1.38 Spare Parts Inventory

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

1.39 Software Interface Requirements

1. The Parking Access & Revenue Control System shall include the following system features that must be capable of interfacing with VCU's existing Banner System, CBORD and Blackboard systems, and between each module of the system, shall be configured to meet VCU's business requirements for permit, transient and event parking.
2. VCU reserves the right to award any part or partial of the following modules, and may award to more than one vendor:
 - a. Parking Facilities Management System
 - b. Programmable Access Control System
 - c. Automated Transient Parking Payment System
 - d. Web-Based Online Parking Permit System
 - e. Managed Permit Fulfillment Services
 - f. Web-Based Citation Enforcement/Payment System
 - g. Web-Based Event Parking Reservation System
 - h. Secure Credit Card Transaction Processing System

Interface

- 1) System should accept files in tab delimited, LST, TXT and CSV format from VCU Banner HR, Student, and Finance systems sent by secure file transfer SFTP
- 2) System should create files in tab delimited, LST, TXT and CSV format with the ability to have files picked up from a SFTP location by secure file transfer.
- 3) Shall interface with Banner for transactions related to students, faculty and staff. There are three interfaces needed:
- 4) Banner student account transactions passed to Banner Accounts Receivable
- 5) Banner faculty and staff Human Resource transactions passed to Banner payroll system
- 6) Banner financial transaction feeds to Banner finance for non-student, non-faculty/staff payment transactions;
- 7) Shall have a certified interface with Banner, CBORD and Blackboard for RAM BUCKS

account access and access security validation for VCU CARD (RAM BUCKS) based transactions.

- 8) Shall interface at a minimum the Permit Holder database within VCU's PARC system :
 - a) All other systems within the Parking Access & Revenue Control System (Facility Management, Transient Fee Collection, Reporting, Barrier Gates, Access Control, Credit Card System, and Event Management System
 - b) VCU in-house Wi-Fi (IEEE 802.11 a/g/n) system

1.40 System Hosting Technical Requirements

System Hosting Options:

- 1) VCU will consider Vendor Hosted and VCU Hosted proposals.
 - a) Vendor/Contractor Hosted Environment
 - b) VCU Hosted Environment
 - c) Hybrid Hosted Environment
- 2) If vendor proposes a hosted, Web-based, Software as a Service (SaaS) solution:
 - a) All hardware and software required for the solution must be housed in a secure site and vendor must provide a SAS 70 style security report from a third-party reviewer
 - b) Solution must include the services required for installation, integration, testing, and maintenance
 - c) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data
 - d) Solution must provide at minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU
 - e) Solution must run on redundant servers with failover capability
 - f) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery
 - g) Solution must provide Web-based remote and mobile access using any industry standard device and browser combination
 - h) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding
 - i) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes.
 - j) System outages for maintenance must not be scheduled during normal working hours (Monday ~ Friday, 6am ~ 11pm, EST)
 - k) Solution must provide scalability and adaptability to changing business needs. Customization methodology must be specified.
 - l) User authentication must be LDAP compatible and ideally CAS for VCU administrative

- access
- m) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods.
- 3) If vendor proposes a VCU-hosted solution:
- a) Solution must conform to VCU’s architectural standards for operating system, database, server platforms, and user authentication (documentation available on Technology Services’ Web site)
 - b) User authentication must be LDAP compatible and ideally CAS for VCU administrative access
 - c) Solution should be capable of running in a virtual server environment
 - d) Solution must provide VCU the capability to install and integrate the solution with existing systems and data, and manage end-users and data
 - e) Application response time must be demonstrated to not exceed 5 seconds on average to load any system form or display on VCU’s main network (10 Gb/sec)
 - f) Vendor must identify the IT skill-sets required to support the solution
 - g) Solution must provide VCU the scalability, adaptability, and customization ability needed to match evolving business needs and processes. Customization capabilities must be robust and flexible.
 - h) Solution must provide Web-based remote and mobile access using any industry standard device and browser combination
 - i) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data
 - j) Solution must include the services and support required for installation, integration, testing, and maintenance
 - k) Vendor must detail the Total Cost of Ownership over three, five, and ten year periods.
- 4) If vendor proposes a ‘hybrid’ solution:
- a) Solution must provide subscription-based licensing
 - b) Solution must be a single-tenancy architecture where applications, databases, servers and memory, storage and backups are not shared with multiple tenants
 - c) Solution should provide the convenience and cost-efficiency of a SaaS (software as a service)-based application with the robustness and broad customization functionality of an on premise system.
 - d) Solution must include the services required for installation, integration, testing, and maintenance
 - e) User authentication must be LDAP compatible and ideally CAS for VCU administrative access

- f) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data
- g) Solution must provide minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU
- h) Solution must run on redundant servers with failover capability
- i) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery
- j) Solution must provide the ability to adapt workflow and internal methodologies to existing VCU processes
- k) Solution must provide Web-based remote and mobile access to all members of VCU community using any industry standard device and browser combination
- l) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding
- m) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes
- n) System outages for maintenance must not be scheduled during normal working hours (Monday ~ Friday, 6am ~ 11pm, EST)
- o) Solution must provide scalability and adaptability to meet changing business needs. Customization methodology must be specified.
- p) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods

Software Upgrades

- 1) Copies of all software (and software updates/upgrades made during the warranty period) must be provided to VCU at the conclusion of the warranty period.
- 2) All software and all software updates/upgrades shall be provided to VCU for a minimum of 5 (five) years at no cost, including PCI compliance and/or PA-DSS certified compliant credit card software. The PARCS Contractor shall provide normal software improvement releases (updates when they become available or when delivered to other clients (whichever comes first)).
- 3) Where software problems are identified by VCU and are agreed to be minor, that is not affecting the entry/exit functionality, these problems shall be corrected in a new software release to be available to VCU within three (3) months of notification. All upgrades or improvements must be documented, approved and presented to VCU.
- 4) For major software problems that are defined as those causing erroneous financial transactions, system inability, database corruption, etc., the PARCS Contractor shall correct these identified problems on a priority bases not to exceed two (2) weeks.
- 5) All software patches, updates and upgrades shall be recorded and submitted to VCU.

Authentication

- 1) Access to functions should be limited by assigned user roles.
- 2) User ID and password shall be required to access the applications with lockout controls as auto log-off to frequently change passwords.
- 3) System should allow LDAP and Local account authentication. LDAP will be used for VCU Students, VCU Faculty & Staff. Local accounts will be used for Non-VCU Employees and Non-VCU Event permit requestors.
- 4) System should have API's available to allow single sign-on using CAS (Central Authentication Service). Single sign-on should be usable from any VCU.edu site to the system's website.

Security

- 1) Shall provide essential security based on access levels. Functions and screens should not be displayed or accessible unless the user has the necessary level of security. Shall allow for user configuration of role privileges and specific individual overrides of standard role security privileges.
- 2) Segregation of duties should be an integral internal control, so that a single individual cannot have access to divert resources.

Credit Card Processing

- 1) For the processing of credit card payments, the University is currently utilizing ELAVON Merchant Services Processing Platform.
- 2) VCU requires that credit card readers be capable of reading mag stripe products; and VCU will require integration infrastructure for NFC cards and EMV smart card with chip & pin technology.

PARCS Data Migration

- 1) Contractor shall convert all data in VCU Parking & Transportation Facilities Management's existing Permit system.

Current Database	4.46 GB
Customer Records	89,142
Vehicle Records	167,866
Addresses	135,085
Permits	193,724
Citations	41,914

- 2) Contractor shall be responsible for the importing of existing data on the current system to the new PARC system.
- 3) Contractor shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system
- 4) A reference file of the old system account numbers with a link to the new account numbers shall be available in the new system.

PARCS Transition Requirements

- 1) Provide qualified staff that shall assist, consult, install, train and oversee the system implementation.
- 2) Provide a documented transition plan with reasonable timeline.
- 3) Upon award of the RFP, signing of the contract and within ten (10) days of receipt of VCU's purchase order, the successful Contractor shall provide a complete project timeline to VCU's Parking & Transportation Facilities Management's department and VCU's Purchasing Department.
- 4) Provide integrated implementation process that incorporates on-line tools, on-site and web based technical services and on-site consultation.
- 5) Interface with existing VCU systems: Banner, CBORD and Blackboard, Wi-Fi and the other PARC systems.
- 6) Assist in the development of reports prior to implementation.
- 7) Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up.

1.41 General Equipment Description

RFID Antenna

- 1) The RFID Permit shall have an RFID micro circuitry Alien G inlay associated to the Antenna/Reader located at all VCU parking facilities from the PARCS provider.
- 2) The UHF RFID Permit inlay shall transmit at a 915MHz, EPC Class 1, GEN 2 and is compliant with ISO 18000-6.
- 3) RFID inlays feature Alien (brand) Higgs-3 silicone chips, which feature a 96-bit (24-characters) factory-encoded Tag ID number, 96-bit EPC memory bank and 512-bit User Memory Bank. The EPC and User Memory banks may be utilized for customer specific encoding.
- 4) Most of our parking applications utilize the EPC Memory bank, with data encoded to specifications provided by VCU. Custom encoded EPC data usually includes Facility Codes or Prefixes identifying specific lots or garages, followed by sequential Permit Numbers, much like data historically encoded in barcodes.
- 5) Custom encoded data may be formatted as 4-bit (hexadecimal) code, 8-bit ASCII code, or decimal values.
- 6) Different reader brands and models offer different defaults and/or options governing how data read from tags is interpreted and/or translated. Acceptable manufacturers of the RFID/Antenna are compatible to ISO 18000-6C and EPC Class 1, Gen 2 standards include the following:

Nedap uPass
TagMaster XT-3
Sirit 4100
Rapid Pass MR6011A

- 7) All RFID Permits must be guaranteed to perform satisfactorily in the heat and not to break in the cold and withstand the general intended use with daily handling and transferring. All printing and numbering on permits shall be provided with sun resistant inks that will remain in good legible condition for a period of one (2) years after permit has been in use on vehicle.
- 8) Contractor to provide 50 TEST samples of RFID Permits to VCU for system testing and compatibility to Antenna/Reader and PARCS network.
- 9) The RFID Inlay memory chip – must hold 60+ blocks of information containing several fields of info per block, i.e., name, address, Permit #, license plate #, etc.
- 10) The RFID Antenna/Reader is designed for vehicle access installations where long range identification in combination with high volume of ID-tags is required.
- 11) Constructed for outdoor use to meet the climate requirements of Richmond, VA. :
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 12) Expandable design capabilities to add additional external RFID Antennas, therefore providing for site configuration flexibility for all VCU installations.
- 13) All-in-one design
- 14) Network connectivity to PARCS site controller and application software module supporting, TCP/IP, RS232, RS485 and Wiegand/MagStripe protocol.
- 15) Operating Requirements:
 - a) Reading range Up to 6 meters* (20 ft)
 - b) Writing range Up to 5 meters* (16 ft)
 - c) Operating frequencies 902 – 928 MHz
 - d) Power supply 10 to 30 VDC
 - e) Power consumption 8.8 W (max 15 W)
 - f) Memory: Flash/RAM 16 MB /32 MB
 - g) Operating temperature -40 °C (-40 °F) to +60 °C (+140 °F)
 - h) Protection IP 66 - Dust & Moisture Resistant rating
 - i) Universal Mounting hardware required

HID Proximity Card Reader

- 1) VCU ID Card is a product of HID that contains a technology combination consisting of 13.56 MHz iCLASS/125 kHz Prox and Magnetic stripe technologies on Track 1, 2, and 3.
- 2) PROX Card Reader shall provide for a 4" read range at all entry and exit lane devices unless otherwise noted.
- 3) All PROX Readers shall be installed to meet operational expectations of all drivers to VCU parking facility.
- 4) PROX Reader shall be designed for weather resistant environments and installed to provide complete functionality.
- 5) PROX Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections

MagStripe Reader (Located in Entry or Exit Transient Stations)

- 1) VCU ID Card is a product of HID that contains a technology combination consisting of 13.56 MHz iCLASS/125 kHz Prox and Magnetic stripe technologies on Track 1, 2, and 3.
- 2) Mag Strip Card Reader shall provide for easy access and swipe or insertion at all transient entry and exit lane devices unless otherwise noted.
- 3) All Mag Stripe Card Readers shall be installed to meet operational expectations of all drivers to VCU transient parking facilities.
- 4) Mag Stripe Card Reader shall be designed for weather resistant environments and installed to provide complete functionality.
- 5) Mag Stripe Card Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections.

Bar Code Reader

- 1) VCU ID Card is a product of HID that contains a 3 of 9 Bar Code Technology.
- 2) Bar Code Card Reader shall provide for easy access and swipe or insertion at all entry and exit lane devices unless otherwise noted.
- 3) All Bar Code Card Readers shall be installed to meet operational expectations of all drivers to VCU parking facilities.
- 4) Bar Code Card Reader shall be designed for weather resistant environments and installed to provide complete functionality.
- 5) Bar Code Card Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections.

Entry Station -Ticket Dispenser (ES)

- 1) The Entry Station-ticket dispenser shall be installed at the locations indicated in this RFP and in accordance with the Manufacturer's recommendations. IP Intercoms, where indicated in this RFP, to be provided by the Parking Control Equipment Contractor. The unit shall have a minimum capacity of 4,000 custom printed tickets.
 - a) All ticket dispensers shall be on-line to the central computer and shall communicate the operational status of the device and any exception transactions as identified in this section.
 - b) The issue of a ticket shall be controlled by a vehicle presence on a detector loop located in the entry lane adjacent to the ticket dispenser. Upon detection of a vehicle, the Entry Station shall activate a vend button and card reader. A programmable Voice annunciation-digital message feature is required to assist the transient parker.
 - c) The ticket dispenser shall encode the magnetic stripe on the back of the ticket with a facility code unique to that facility, device ID number, Transaction number, Ticket number, rate/tariff structure, and entry date/time (including the year). The device ID number and entry date/time shall also be printed on the face of the ticket in man-readable format.

- 2) Back-Out Ticket:
 - a) If the vehicle backs out of the lane after a ticket has been issued, but the ticket remains in the transport opening of the ticket dispenser, the ticket dispenser shall immediately retract that ticket, void the ticket by encoding the magnetic strip, and print "Retracted" or "B/O" on the face of the ticket.
 - b) The ticket dispenser shall then transport the ticket to a bin located in the Entry Station housing for storage of Retracted or Service tickets.
 - c) A message shall be immediately transmitted to the central computer, identifying that ticket sequence number as a "Retracted Ticket." The message shall include the device ID number, date/time of the event, and ticket sequence number.
- 3) Stolen Ticket
 - a) The ticket dispenser shall contain logic that enables it to detect when a customer backs out of the lane after taking a ticket. The logic is based on the sequence of detection on the three (3) detector loops.
 - b) If a vehicle backs out of the lane after the ticket has been removed from the ticket dispenser, a message shall be immediately transmitted to the central computer, identifying that ticket sequence number as a "Stolen Ticket." The message shall include the device number, date/time of the event, and ticket sequence number.
 - c) The gate shall immediately return to the down position and the ticket dispenser shall reset for the next entry transaction.
- 4) The time shall be programmable to print in either military or AM/PM format.
- 5) The unit shall be provided with heating, cooling, thermostats, etc., as required and of adequate size and tested by the Manufacturer, to ensure satisfactory operation in the environmental conditions at the installed location.
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 6) Off-line Operation and Recovery of Transaction Data:
 - a) All ticket dispensers shall be capable of operating independently of the remainder of the system in the event that communication with the central computer is lost. The Entry Station shall maintain an internal record of all normal transactions and ticket serial numbers issued. This data shall be transmitted to the central computer upon the restoration of communication.
 - b) If communication with the central computer is lost, the ticket dispenser shall store a minimum of 200 Stolen Ticket or Back-Out Ticket events that occur during the communication failure. This includes any such events that had not yet been transmitted to the central computer at the time of the communication failure.
 - c) When communication is restored, the ticket dispenser shall automatically transmit all Stolen and Back-Out ticket transaction information not previously transmitted to the central computer. This transmission shall include the last transaction sequence number transmitted before the communication failure in order to establish continuity. Transmission of this last transaction sequence number shall not affect the accurate summarization of total tickets issued for the purpose of ticket reconciliation.

Automated Payment Station (POF)

- 1) Automated Payment Stations shall provide the following components and capabilities:
- 2) POF Stations will meet all ADA-AG Installation and operating requirements.
- 3) POF Stations will accept payment by cash (notes), coin, credit card, debit card, QR barcode device, integrated chip & pin reader, and VCU ID (RAM BUCKS) cards.
- 4) Front access door with appropriate 5 point tamper-resistant locking system (each Automated Payment Station to be keyed differently and unique to this installation) and provide alarm contacts upon entry.
- 5) POF Cabinet shall be weather resistant to all climates and designed for the specific weather associated with Richmond, VA. It is the Contractor's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather spectrums provided below:
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 6) POF Station will accept and recycle nickels, dimes, and quarters and dispense as required to the parker. All incoming coins will be first placed in the hoppers then to the coin vault within the station.
- 7) POF Station will accept notes and escrow One, Five, Ten and Twenty Dollar denominations in any sequence during the transaction. The note acceptor will reject from escrow all damaged notes and shall store all approved incoming notes into the vault.
- 8) POF Station shall dispense change in both coin and notes. An integral Note to Note dispenser will contain separate vaults for note storage and will dispense as change back when required. Each denomination will have separate vaults for reloading and real-time management.
- 9) POF Station shall accept validation coupons, chaser tickets, or other credential for partial or full payment of parking fee.
- 10) Exit Grace Period shall be programmable by parking facility. The Exit Grace Periods shall be programmable by entry ticket location, not by one general facility configuration.
- 11) Push-button VOIP intercom integrated into the face of the Pay Station.
- 12) Utilize visual instructions for parkers to understand the sequence of events to complete a payment transaction.
- 13) Issues audio voice annunciation instructions to compliment the visual instructions
- 14) Intuitive parker interface monitor/screen with pictographs as necessary to assist the parker through the payment process.
- 15) Cancel button that allows a parker to cancel a transaction once a parking ticket has been inserted
- 16) All static text shall be in English or other approved language with universal icons and graphics

- 17) Parker interface capable of displaying two user-selective languages at a minimum, including English and Spanish.
- 18) Colors for the pay stations, all text, and graphics shall be configurable and approved by VCU prior to manufacturing
- 19) Integrated and on-line within the PARCS utilizing TCP/IP
- 20) Utilizes single-slot technology for ticket and credit card insertion and reading
- 21) Inserted credit cards shall be read in all four directions
- 22) Illuminated ticket slot
- 23) Capable of processing parking fee payments using multiple forms of payment, e.g., any combination of credit card payment, coupon, validation, and VCU ID (RAM BUCKS) cards.
- 24) Barcode reader for reading coupons, tickets, and PDA electronic visual display integrated into the face of the Pay Station
- 25) Capable of completing on-line, real-time credit card authorization as well as storing offline credit card transactions for uploaded upon re-establishment of communications.
- 26) Permit VCU to change the grace time (the number of minutes between the time a ticket is paid and the time a driver exits with vehicle through exit lane)
- 27) Log when a cabinet has been opened or closed; password entry required to allow software access; date and time recorded in real-time on the Event Log
- 28) Receipt generation
Upon successful payment, print a receipt that includes:
 - a) VCU address
 - b) VCU telephone number
 - c) Receipt #/Transaction #
 - d) Pay station identification number
 - e) Time, date and lane in
 - f) Time paid
 - g) Length of stay
 - h) Parking fee
 - i) Sales tax
 - j) Total amount
 - k) Validation Amount
 - l) Method of payment
 - m) Credit card type and last 4 digits of credit card #
 - n) Amount paid
 - o) Change Due
 - p) VCU shall have the option to change receipts for all transactions to be auto issue or by request. The configurable timeout function for receipt request shall be initially set for 20 seconds or until the next ticket is inserted.
 - q) Receipt Stock Low alarm generated on FMS
- 29) As part of their Proposal Response, the Contractor shall submit shop drawings/cut sheets of proposed Automate Payment Stations.

Exit Station (Credit Card Station)

- 1) Automated Credit Card Exit Station (no cashier) shall be installed as indicated on the drawings. The Exit Station installation will allow customers to process their entry tickets and pay by credit card or by Frequent Parker Card.
- 2) Exit Station Cabinet shall be weather resistant to all climates and designed for the specific weather associated with Richmond, VA. It is the Contractor's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather spectrums provided below:
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 3) The Exit Station shall be similar in size to the ticket dispenser.
- 4) The Exit Station shall be capable and programmed to perform automated processing of credit card exit transactions and pre-paid tickets. Both modes shall be active simultaneously.
- 5) The Exit Station shall include a two-line visual display capable of being programmed to automatically provide visual prompts at each step in the transaction process and for other likely events, such as insertion of the credit card before insertion of the ticket. Minimum character height for the display shall be 3/8 inch.
- 6) The Exit Station shall include a programmable/recordable voice annunciation capable of automatically delivering audible message prompts at each step in the transaction process or in response to likely deviations.
- 7) The Exit Station shall be equipped with a single slot for accepting tickets and credit cards.
- 8) The Exit Station shall be on-line with the central computer and/or credit card server.
- 9) The Exit Station shall be capable of functioning in four (4) modes simultaneously:
 - a) Mode 1 Processing credit card payment of an entry ticket ("ticket in / credit card out")
 - b) Mode 2 Processing of a pre-paid ticket to open the gate. The ticket can be pre-paid at the Automated Payment Station (POF) or validated for free exit by a ticket validator.
 - c) Mode 3 Processing a Frequent Parker Card transaction for payment of a Frequent Parker Card IN / Frequent Parker Card OUT transaction by use of a Mag stripe card reader, or PROX card reader internal to the Exit Station.
 - d) Mode 4 Processing of an exit credit card transaction that is associated with use of that credit card at the entry ("credit card in / credit card out"), a feature not active with the initial installation.
- 10) Described modes 1, 2 and 3 shall be operational at the time of installation. Mode 4 shall be activated upon VCU's request at no cost to VCU.
- 11) The Exit Station shall provide the following functionalities under "ticket in / credit card out" mode (MODE 1):
 - a) The Exit Station shall be inoperative if no vehicle is detected in the lane.



- b) When a vehicle is detected in the lane, the Exit Station shall become active.
- c) The Exit Station shall display "PLEASE INSERT TICKET" as the default screen message and announce "Please insert ticket five (5) seconds after a vehicle arrives on the arming loop. The audible message shall repeat every five (5) seconds until a ticket is inserted or the vehicle backs out of the lane.
- d) If a customer inserts a credit card into the receiver slot before inserting a ticket, the Exit Station shall provide an audible prompt and screen prompt to "Please insert ticket first." The audible prompt shall repeat every three (3) seconds until the credit card is removed.
- e) When the customer inserts a ticket into the receiver slot, the Exit Station shall read the entry date/time and rate code information encoded on the ticket.
- f) If the ticket is invalid (not for that facility and area; stolen, used or a back-out ticket) the visual display shall display "INVALID TICKET; USE INTERCOM" and the voice annunciation shall announce "Invalid Ticket, Please Use Intercom."
- g) If the ticket is valid, the Exit Station shall compute the parking fee based on the length of stay and rate code, displaying the fee on the visual display along with the message "FEE \$____ ; INSERT CARD"

12) Credit Card Transactions:

- a) Upon insertion of the credit card, the Exit Station shall perform a validity check on the number sequence on the card and expiration date to determine if the card valid and is one of the cards accepted at the facility.
- b) If the encoded information cannot be properly read, the card shall be returned and "INVALID READ; Please Use Intercom" shall display. The voice annunciator shall announce "Invalid read. Please Use Intercom."
- c) If the card is NOT valid, the message "INVALID CARD. USE OTHER CARD OR CANCEL" shall appear on the visual display and the voice annunciator will announce "PLEASE USE ANOTHER CARD OR PRESS CANCEL."
- d) If the card is valid, the Exit Station shall return the card to the customer, display a "REMOVE CARD" message on the display and announce "Please remove card" via the voice annunciator. The Exit Station shall not proceed with the transaction until the credit card is removed. The voice annunciator message shall be repeated every three (3) seconds until the card is removed.
- e) Upon removal of a valid credit card, the Exit Station shall complete the transaction in one of the following two (2) modes as directed by VCU:
 - (1) Batch Mode Operation:
 - i. If the card is valid, and the amount of the fee is below the established floor limit for the facility:
 - ii. The Exit Station shall complete the transaction by vaulting the ticket, issuing a printed receipt and submitting the transaction information to the central computer. The central computer shall store that information for batch submission to the credit card clearinghouse.
 - iii. After the receipt is removed, the Exit Station shall signal the gate to open.

- iv. After the vehicle passes over and clears the closing detector loop, the gate shall return to the down position and the Exit Station shall reset for the next transaction.
 - v. If the fee amount is above the established floor limit, the Exit Station or central computer and supporting interface shall establish live communication with the clearinghouse and submit the charge for an approval number.
 - vi. If an approval number is received, the transaction shall be completed in (1) above.
 - vii. If the clearinghouse rejects the charge, the Exit Station shall return the card and display the message "INVALID CARD. USE ANOTHER CARD OR CANCEL." The voice annunciator shall announce "Invalid Card; Please use another card or press cancel"
 - viii. If the customer removes the card and presses the CANCEL button, the ticket shall be returned.
 - ix. If the customer removes the card and backs out of the lane, the Exit Station shall vault the ticket, send a back-out message to the Event Log, and reset for the next transaction.
 - x. If the customer backs out of the lane without removing the card, the card shall be withdrawn into the Exit Station and an alarm sent to the Facility Monitoring System. If the customer inserts another credit card, the Exit Station shall resume the process at the point that the card is checked for validity.
 - xi. If processing of credit card transactions is performed by logic within the lane device, the system shall provide the capability, at VCU's option, to allow credit card transactions to be completed if, within a period of time determined by VCU, communication with the clearinghouse cannot be established or an approval number is not received.
 - xii. Periodically, and no less than once per day, at VCU's option, the central computer shall submit all credit card charges in batch format to the clearinghouse for processing.
 - xiii. Any incomplete rejected charges at that time shall be reported on a Daily Credit Card Activity report and coded as rejected or incomplete, along with complete card identification information that will enable VCU to track and pursue the rejected charge.
- (2) Continuous Open Approval Line:
- i. The Exit Station and supporting system shall be capable of processing with a continuous open line to the clearinghouse, or through a secure internet connection, which would allow instant communication without waiting for the dial-up process. Under this mode of operation the Exit Station shall operate as follows:
 - ii. If the card is valid, the Exit Station shall submit the charge for an approval number to the clearinghouse.
 - iii. If an approval number is received, the Exit Station shall complete the transaction; vault the ticket, issue a receipt, return the credit card, open the exit gate and reset for the next transaction after the vehicle departs and the gate closes.

- iv. If the clearinghouse rejects the charge, the Exit Station shall return the card and display the message "INVALID CARD. USE OTHER CARD OR CANCEL." The voice annunciator shall announce "Invalid Card; Please use another card or press cancel."
 - v. If the customer inserts another credit card, the transaction shall resume at the point that the validity of the card is verified.
 - vi. If the customer backs out of the lane, the ticket shall be vaulted, a back-out message sent to the Event Log and the Exit Station reset for the next transaction.
- 13) The Exit Station shall provide the following functionalities under "Pre-paid Ticket" mode (MODE 2):
- a) The Exit Station shall be inoperative if no vehicle is detected in the lane.
 - b) When a vehicle is detected in the lane, the Exit Station shall become active.
 - c) The Exit Station shall display "PLEASE INSERT TICKET" as the screen message and announce "Please insert ticket" five (5) seconds after a vehicle arrives on the arming loop. The audible message shall repeat every five (5) seconds until a ticket is inserted or the vehicle backs out of the lane.
 - d) If the customer inserts a ticket that has been validated and the exit time is within the allowable exit period after payment of the fee:
 - (1) The Exit Station shall accept the validated ticket and open the exit gate.
 - (2) The Exit Station shall display a "THANK YOU" message until the exiting vehicle clears the gate closing loop.
- 14) If the customer inserts a ticket that has not been validated, the Exit Station shall proceed as in MODE 1.
- 15) If the customer inserts a ticket that has exceeded the allowable exit period following payment of the fee:
- a) The Exit Station shall display the following message:
FEE DUE \$(fee)
INSERT CREDIT CARD
OR PRESS CANCEL
- 16) If the customer inserts a credit card, the transaction shall proceed as a credit card transaction for the amount due.
- a) If the customer presents a VCU Card at card reader, the transaction shall proceed as a VCU Card transaction for the amount due. VCU card reader may be internal to Exit Station.
 - b) If the customer presses the CANCEL button, the ticket shall be returned to the customer and the transaction cancelled. The details of the cancelled transaction shall be transmitted to the central computer but no fee amount shall be included as revenue.
 - c) When the customer leaves the lane, the Exit Station shall reset for the next

transaction.

- 17) The Exit Station shall have the capability of processing a VCU Card (MODE 2): VCU card reader may be internal to Exit Station.
 - a) Use of a VCU Card as the mode of payment, the Exit Station shall function in the same manner as a cashier terminal in performing facility code and validity checks.
 - b) If VCU Card fails to meet any of the facility code or validity checks, but is NOT found on the Lost and Stolen list:
 - (1) The display shall read:
INVALID CARD
INSERT CREDIT CARD
OR PRESS CANCEL
 - (2) If the customer inserts a valid credit card, the transaction shall proceed as a credit card transaction.
 - (3) If the customer presses the CANCEL button, the ticket shall be returned and the Exit Station reset for the next transaction when the vehicle presence is no longer detected on the arming loop.
 - c) If VCU Card is found on Lost and Stolen list:
 - (1) The card shall be vaulted and the Exit Station shall display the following message:
INVALID CARD
CARD RETAINED
SEE CASHIER
 - (2) The Exit Station shall return the ticket to the customer and the Exit Station shall reset for the next transaction when the vehicle presence is no longer detected on the arming loop.
- 18) Off-Line Operation:
 - a) The Exit Station shall operate in the same manner as the cashier terminal with respect to the processing of both credit card and transactions when a communication failure prevents normal processing with real-time authorizations of credit card charges. This includes queuing of information for a minimum of 5,000 transactions and automatic submission of incomplete transaction information to the central computer upon restoration of communication. It also includes the options available to VCU in selecting the same restrictions and limitations described in this RFP for credit card and VCU Card transactions processed on Cashier Terminals.

Barrier Gates

- 1) Barrier Gates shall be UL Approved and labeled on the exterior of the cabinet.
- 2) Barrier Gate Cabinet color shall be determined by VCU.
- 3) Barrier Gate shall display on the exterior of the cabinet a Model Plate indicating the manufacturers name, address, model number, serial number, main power supply, secondary power supply ratings, and amperage ratings.

- 4) The Barrier gate shall provide an effective to one-way vehicles in the entrance and exit lanes. The barrier arm shall retract quickly in a vertical plane on a command signal from the Entry Station - ticket dispenser, Exit Station, RFID Permit reader, card reader, or detector loop depending on location, and return to the lower position upon a signal from a detector ("closing loop") located beyond the gate arm. Electronic sensor switches or variable motor measurement is preferred over mechanical limit switches to control the up and down stopping points of the barrier gate arm.
- 5) Barrier Gates may be on-line to the central computer and shall be capable of responding to remote "Raise", "Lower", "Open Lane" and "Close Lane" commands through a network device from the central computer. A real-time status condition is required for all barrier gates.
- 6) Barrier Gates shall transmit status messages to the central computer to indicate "UP" and "DOWN" status and gate malfunction or alarm condition.
- 7) The Barrier Gate shall be installed as located in the RFP and shall incorporate in one housing all necessary components for the functioning of the unit. The assembly shall operate in the environmental conditions of the installed location.
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 8) The unit shall include a 10' (ft) arm of reflective aluminum construction. The barrier arm shall be a breakaway design that can be easily be replaced when broken. The height of the gate arm shall be approximately 36 inches from drive level in the DOWN position. Provide and install articulating gate arms where required by low ceiling height.
- 9) Each Barrier Gate shall be installed with an audible alarm and a visual warning beacon to warn pedestrians of the moving gate arm.
- 10) The Barrier Gate shall remain in the up position so long as a presence is detected on the closing loop.
- 11) The Barrier Gate arm shall have a down strike safety feature. This feature provides that should any object be struck by the gate arm during its descent, the arm shall immediately reverse and return to the UP position without damage, and remain up from 2 to 60 seconds, until automatically reset by an internal variable control. The sensory function shall be initiated by sensing the internal mechanical action. The external mounting of tubes, wiring, and electrical devices on the gate arm shall not be acceptable.
- 12) The Barrier Gate arm shall return to the down position after a programmable period of time if vehicle passage through the gate is not completed and there is no vehicle presence on any detector loops in the lane.
- 13) If a Barrier Gate remains in the up position when there are no vehicles detected on the lane loops, the gate shall send an alarm signal to the central computer.
- 14) If an entry Barrier Gate remains in the up position for more than sixty (60) seconds without completing a vehicle entry sequence, the gate shall send an alarm signal to the central computer.

Uninterruptible Power Supply (UPS)

- 1) A single UPS unit, appropriately sized, shall support all devices at an individual entry lane or exit lane with the exception of cashier booth HVAC units. UPS units that supply conditioned and back-up power to multiple components are required to minimize maintenance.
- 2) Conditioned/emergency power through the TCP/IP-enabled UPS units shall be provided for the following components and facilities to protect components from loss of power, power spikes, and power sags:
 - a) All Entry Lanes
 - b) All Automated Payment Stations
 - c) All Cashiered Exit Lanes
 - d) All Exit Lanes
- 3) UPS battery back-up for all lanes shall be sized to last sixty (60) minutes.
- 4) An on-line, solid state UPS shall provide both backup power and transient surge protection. The Contractor is alerted to the fact that there are a number of power distribution panels providing electrical service Campus wide. The Contractor shall be responsible for providing the UPS backup requirements for each of the locations where UPS backup is required, based upon the equipment that is actually being supplied by the Contractor. VCU shall review and approve the UPS units to be provided by the Contractor. The Contractor shall test all UPS system components during the Site Acceptance Tests for each parking lane/facility. The UPS shall be sized with a 20% spare capacity minimum.
- 5) The UPS shall consist of a power module, storage battery and a battery disconnect switch.
- 6) The UPS shall have a lockable weather resistant UL designation suitable for outdoor mounting.
 - a) Ambient Temperatures: -10°F to 120°F
 - b) Humidity: 0% to 95% (non-condensing)
 - c) Rain: Blowing Rain & Snow with 100 mph Gusts
 - d) Dust: Blowing dust and fine particles
- 7) All UPS units shall be SNMP compatible to allow automated notification when battery power is activated or the battery levels become critically low. On-line communication using an appropriate UPS monitoring software application shall be provided on one or more workstations with user selectable options to view the status of each individual installed UPS unit. At a minimum, the monitoring software shall display the operational status of each UPS unit (line/battery, online/offline) and generate alarms in the event the UPS unit's battery power is activated, becomes low or is completely exhausted.
- 8) As part of their Proposal, the Contractor shall submit shop drawings of all proposed UPS devices and UPS monitoring software. Included in the UPS shop drawings shall be the manufacturer's recommended battery refresh cycle.

Tickets

- 1) Contractor shall provide an initial supply of 500,000 custom printed entry lane tickets. VCU shall provide a breakdown of color and quantity by facility to successful proposer.



- 2) The format of the tickets and ticket text shall be submitted to VCU for approval prior to purchase.
- 3) Different ticket colors shall be provided for the various parking areas as determined by VCU and the distribution of the initial ticket stock among the various color sets shall be determined by VCU.
- 4) In addition to the ticket stock for the ticket dispensers, Contractor shall provide 20,000 exception tickets, cut to individual tickets, in a color different from any of the other ticket stock for this location. These tickets may be used as a validation ticket or temporary multi-day access ticket as pre-programmed by the systems validation unit or Web based program.
- 5) Contractor shall provide a list of all ticket manufacturers, along with contact information, who are considered to be certified by the equipment manufacturer and the Contractor, to be acceptable as sources for future ticket stock. Purchase of future tickets shall specifically not be limited to the Contractor and its internal sources. If Contractor is unable to provide an external source for acceptable ticket stock, Contractor shall be obligated to research potential ticket manufacturers to identify an acceptable source.

Validation System

- 1) The PARCS shall provide the ability to create, process, and track multiple forms of fee discounts and validations electronically in the system by a web based Validation system and by a ticket recoding stations located on the PARCS network.
- 2) The Contractor shall provide an electronic validation system whereby VCU may discount a parker's parking fee by either re-encoding their parking ticket or issuing a magnetically encoded or barcode voucher, or by a web based solution.
- 3) Field devices (Entry Stations, Pay Stations, and Express Exit Stations) shall be capable of accepting validations, coupons, and gift cards through the ticket transport or via the external barcode reader.
- 4) Validations shall be made for specific dollar amounts (e.g. \$5.00 off), specific durations of time (e.g. two hours free), for the entire parking fee, percentage discount, or reduce the rate structure for an individual ticket.
- 5) VCU shall be able to create validations via Validation Stations that are connected to the browser-based PARCS, network and protected by username and password. The Contractor shall be responsible to ensure that the validation stations function in accordance with this RFP even if the validation stations are connected to an existing University computer workstation.
- 6) Only users with appropriate authorization shall be able to issue validations and the PARCS shall track all validations for auditing purposes by user, validation date, validation type, and validation amount.
- 7) All validations shall be able to be set with an expiration date or time period of validity after which they automatically expire and become invalid in the system.
- 8) Three (3) validation stations shall be provided by the Contractor, location to be

determined by VCU.

- 9) The Contractor shall submit a cut sheet of the proposed Validation Station as part of their Proposal.

Facility Monitoring and Count/Control System

- 1) For the purpose of the description of the functionality in this RFP, the combined facility monitoring and counting functions will be referred to as the Facility Monitoring System (FMS).
- 2) The count/control system shall interface between the on-line devices and the central control computer, to provide a complete operating system.
- 3) Any interface and control functions involving manual input from a Manager shall be available, with proper password control, at any authorized workstation connected to the system via VCU's network backbone. No interface functions shall be limited to a specific workstation.
- 4) The primary functions of the FMS are:
 - a) Monitor the status of lane devices.
 - b) Record electronically all system events from all devices.
 - c) Receive and display/announce alarms.
 - d) Send remote SMS or text messages to designated devices for remote alarm management.
 - e) Provide the means to send remote device commands from the central computer via authorized workstations on a Local Area Network (LAN).
 - f) Receive and compile entry and exit counts.
 - g) Compute occupancy and vacancy levels by individual locations and facility-wide.
 - h) Initiate facility or location closures based on current occupancy levels.
 - i) Control and transmit space counts to variable message signs (future).
 - j) Track illegal entries and gate overrides (vehicles passing through the lane with the gate locked in the open position).
- 5) Input Device Monitoring: The FMS shall monitor the following input signals at a minimum:
 - a) Entrance Lanes
 - b) Lane in service / not in service
 - c) Transient gate vend (Ticket Pull)
 - d) Card access gate vend
 - e) Stolen Ticket event (ticket pulled but no entry)
 - f) Back-Out event (ticket vend but not removed from dispenser)
 - g) Gate up beyond pre-set time limit
 - h) Gate up with no vehicle present
 - i) Gate out of service
 - j) Tickets low (mechanical switch)
 - k) Tickets out (mechanical switch)
 - l) Manual gate open
 - m) Ticket jam
 - n) Arming loops A + B fail alert
 - o) Ticket issue loop fail alert



- p) Gate reset loop C fail alert
 - q) Reverse passage (exit through entry lane) Directional Logic Alarm
- 6) Exit Lanes
- a) Card access gate exit (Card Vend)
 - b) Exit Control Station vend
 - c) Gate up
 - d) Ticket jam
 - e) Gate down
 - f) Gate up beyond pre-set time limit
 - g) Gate loop error (not operating)
 - h) Manual gate opening
 - i) Arming loop failure
 - j) Closing loop failure
- 7) Output Control Signals: The FMS shall provide output signals, including the ability to issue remote manual device commands and space counts to variable message signs (future). Remote manual commands shall be available from the central computer and initiated at any authorized workstation on the network backbone only upon entry of an authorized password for the specified remote command function.
- 8) Entrance Lanes
- a) Full Sign On/Off (future)
 - b) Gate Vend (Manual Open)
 - c) Gate Override (Continuous Up)
 - d) Gate Reset (Gate Down)
 - e) Lane Closed (Dispenser On/Off)
- 9) Exit Lanes
- a) Gate Vend (Manual Open)
 - b) Gate Override (Continuous Up)
 - c) Gate Reset (Gate Down)
 - d) Lane Closed ("Closed" Signs) (future)
- 10) FULL Signs and Variable Message Signs
- a) Display OPEN or FULL messages (future)
 - b) Display space available counts (future)
- 11) The Count/Control System shall provide the following counts:
- a) Transient Differential Count (with holdback feature) Note: Turns on Facility Full Signs (future)
 - b) Facility Total Differential Count
 - c) Differential Count to support Card Access function
 - d) Transient Entrance and Exit Count Non-resettable (by lane)
 - e) Card Access Entrance and Exit Count Non-resettable (by lane -to support possible future activation of Card Access function.)
 - f) Total Vehicle Entrance and Exit Count Non-resettable (by lane)
 - g) Number of Vehicles through Entrance or Exit with Gate Locked in the Up Position, Non-resettable (by lane)

12) Count System Function:

- a) The count system shall maintain a continuous count of vehicles within each of the designated parking facilities.
- b) Using these counts, the Facility Count component of the Facility Monitoring System shall maintain a continuous, real-time presentation, on a facility count screen, of:
 - c) the capacity of each area
 - d) the number of available spaces remaining
- e) Each of these counts shall be accessible to the Manager for corrections through an authorized workstation.
- f) The Count System shall provide Upper Limit and Lower Limit controls to control automatic facility closure and re-open functions.
- g) When the vehicle count for a facility reaches the Upper Limit set by the Manager, the central computer shall automatically close the facility including the following actions:
 - h) Disabling of ticket dispensers
 - i) Closure of Traffic Control Gated at the entry points of the garage
 - j) Turning Lane Status Lights to RED
 - k) Changing Lane Control Lights to FULL
 - l) Sending a message update to variable message signs to display FULL
- m) The facility shall remain “closed” until the count of vehicles in the facility falls below the Lower Limit set by the Manager. At that point the central computer shall return the status of all devices to the normal OPEN condition.
- n) The Count System shall provide a differential control that allows automatic display of a FULL status on the Variable Message Signs in advance of activation of other facility closure actions. The Manager shall have the capability to set the capacity of a specific number of spaces, programmable and changeable, that will cause the FULL message to be displayed on the Variable Message Signs in advance of activation of full signs at the affected facility. The Variable Message Signs shall not return to OPEN status until the Count System has re-activated all lane equipment to normal operating functions.
- o) The Manager shall have the ability to disengage the automatic closure feature for any individual facility or all facilities.
- p) The Manager shall have the ability to override any automatic open/closure controls from an authorized workstation, including manual change of open/closed status with the accompanying change in the status of the affected devices.

13) The FMS shall provide the following displays and miscellaneous functions on a workstation monitor.

- a) Current Time
- b) Count System Status
- c) Capacities by area
- d) Occupancy by area
- e) Upper and lower limits
- f) Open/Closed status by area
- g) Occupancy and vacancy of entire facility.
- h) Open/Closed status of entire facility
- i) Device status for all lane equipment.
- j) Entrance and Exit Lane Status (Open/Closed)
- k) Device Status of all Automated Payment Stations (POF) including all vault status and inventory.

- 14) Hard Copy Functions
 - a) The Count/Control System shall be able to output the following information to a system event log printer:
 - b) Alarm Conditions
 - c) Alarms involving entry transactions shall include:
 - (1) Date/time
 - (2) Lane number
 - (3) Event code
 - d) Alarms involving exit transactions shall include:
 - e) Date/time
 - f) Lane number
 - g) Event code
 - h) Transaction amount
 - i) Lane Control Actions -including:
 - j) Lane openings
 - k) Lane closings
 - l) Facility and area openings
 - m) Facility and area closures
 - n) Remote commands
 - o) Hourly Count Status of all Counters
 - p) Interim Report of All Counters on demand.
 - q) Information printed for all events involving remote commands or manual changing of data or parameters shall include the ID number of the workstation user.
 - r) The specific events that are printed shall be Manager selectable and changeable through an event printing selection screen.
 - s) If the event log printer is disconnected, the count control system shall buffer the above information for a minimum of 24 hours. Beyond 24 hours, stored information shall be deleted on a first-in-first-out basis. With or without the printer connected, all functions of the count control system shall continue to operate.
 - t) Lane Status Monitoring
- 15) The FMS shall monitor each entry and exit lane for the lane status and proper operation of equipment.
- 16) The FMS shall provide an audio alarm and screen display such conditions as:
 - a) Ticket Jam in Entry Station-Ticket Dispenser
 - b) Entry Gate malfunction
 - c) Detector Fail
 - d) Exit Gate malfunction
 - e) Low Ticket
 - f) Lane Open/Closed
 - g) Facility Full
- 17) The FMS shall continually display occupancy counts by area and facility.
- 18) The FMS shall automatically open and close parking areas and their associated entrance lanes utilizing an "Upper Limit / Lower Limit" methodology.

- 19) When occupancy in an area reaches a present UPPER LIMIT, the FMS shall automatically close the entry lanes to that area and cause the associated full signs to display "FULL."
- 20) The FMS shall monitor exits and automatically reopen the appropriate areas and lanes when the number of vacant spaces reaches a LOWER LIMIT determined by the Manager.
- 21) The UPPER and LOWER limits are programmable and changeable by the Manager and intended to prevent confusion at the entrance that can occur if the entrance lanes are re-opened and closed with each exiting vehicle.
- 22) The FMS shall allow the Manager to disengage the automatic facility/area closure feature, by area, without impacting the occupancy counts or requiring the input of fictitious capacities to disengage the automatic closure feature.

PARCS Central Computer and Software

- 1) Should the Vendor propose a local central computer at each campus, including the all system software, the Monroe Campus central computer would be located in the West Broad Street Deck. The central computer for the Medical Center Campus will be located at the 8th Street Deck.
- 2) The Parking Access & Revenue Control System must support a bi-directional interface with VCU Operational Database (VCU-ODB) using ODBC, XML or other mutually agreeable open-standard message protocol to VCU Web portal for real time parking occupancies across the PARCS network. (Within twelve weeks of Notice to Proceed, the Contractor shall develop jointly with VCU and the ODB System Integrator the Interface Control Document (ICD) specifying this interface.)
- 3) The central computer shall include all necessary components, peripherals, software and software licenses to provide full support to the Parking Access & Revenue Control System and to facilitate use of the system by the Manager or designated Manager.
- 4) Any interface and control functions involving manual input from a Manager shall be available, with proper password control, at any authorized workstation connected to the system via the LAN. No interface functions shall be limited to a specific workstation.
- 5) The central computer will be provided by VCU OTS. Contractor shall provide their requirements. Server will be a virtual machine.
- 6) The server Operating System will be Windows 2008R2, provided by VCU OTS.
- 7) The central computer shall:
 - a) Be on-line to all lane devices.
 - b) Perform all necessary monitoring, data collection, data distribution, data compilation, data storage and report generation functions to provide the Manager complete control, accounting and reporting system for the parking facilities.
 - c) Provide the platform for the Facility Monitoring System described in this RFP.
 - d) Initiate automatic synchronization of the clocks in all field devices to the master clock maintained in the central computer at intervals of no less than thirty (30) minutes and allow manual initiation of the automatic clock synchronization function.

- e) Provide multi-tasking capabilities which will allow use of the workstation for management and administrative purposes, utilizing standard off-shelf computer programs (e.g. Microsoft WORD, EXCEL, POWERPOINT, ACCESS, PUBLISHER, or similar) without degradation of system performance in processing transactions or generating reports.
- f) Collect and compile all data related to entry and exit transactions throughout the facility.
- g) Provide both display and printing capabilities for all screens and reports.
- h) Interface with the credit card clearinghouse to process credit card transactions.
- i) Print operational and accounting reports to include, at a minimum:
 - (1) Event log
 - (2) With Manager selected events to print including selectable and protected default set
 - (3) Capability to perform immediate print of most recent 50 events or manually selected period.
 - (4) All RFID Permit and VCU ID Card Activity by lane, location, and event query.
 - (5) Starting and ending non-resettable dollar and transaction numbers related to the lane
 - (6) Revenue and transactions by each category at the smallest category increment, including validation accounts
 - (7) Total fee before discount and adjustments
 - (8) Net cash collected (to be accounted for)
 - (9) Incomplete credit card transactions
 - (10) Daily consolidation of revenue and transactions by lane – grouped by lane number
 - (11) Credit card transaction detail reports – by transaction
 - (12) Credit card batch reports for reconciliation
 - (13) Credit card exception reports for incomplete or rejected credit card transactions.
 - (14) Statistical lane volume reports for tracking activity by lane by hour by day of week.
 - (15) Historical facility loading reports (vehicle accumulation) extractable from stored data. Includes the capability of extracting occupancy levels by hour for specific days.
 - (16) Facility for tracking receivables, including incomplete credit card transactions.
- 8) Monthly Reports:
 - a) All Access Control activity by query
 - b) Revenue & Access transactions by date and lane
 - c) Transaction volume by lane
 - d) Transaction volume by time of day
 - e) Ticket analysis – distribution by value and length of stay
 - f) Payment Station analysis – statistical transaction analysis related to each Station
- 9) Incorporate flexible report configuration capabilities that allow simplified development of specialized reports by Manager.
- 10) Allow any and all data fields on a query screen to be used as query criteria.
- 11) Allow partial word or wild-card character searches in any data field.

- 12) Allow up to three (3) sort criteria using any of the data field on the screen.
- 13) Allow a search and extraction of data for any contiguous time period using dates and/or date-time combinations as parameters.
- 14) Allow any report available in the system to be accurately produced at any time for any date-time period subject to the limitation that reports that require a full day's data for accurate compilation be queried on that basis.
- 15) Archive data (6 months of data minimum) on a resident warehouse hard drive.
- 16) Provide a utility for archiving data externally on an external electronic media approved by the Manager.
- 17) Include a utility for auto-archiving of data based on programmable date criteria (e. g. 180 days old) or automatic archiving on a first-in-first-out basis when the storage space on the primary hard drive reaches 80% of capacity or other level approved by the Manager.
- 18) Provide read-only access to data tables for the extraction of data for export to other programs such as Microsoft Excel.
- 19) Provide custom report writing and formatting utility which will allow the Manager to format custom reports.
- 20) Provide password protection for all access to central computer functions utilizing a full matrix, which allows assignment of access authority to each function on an individual basis and by access groups. The use of access groups is provided as a convenience and shall not restrict assignment of access selections on an individual basis.
- 21) Automatic processing of daylight savings time commencing and ending with proper rate calculations of parker tickets affected by change in daylight savings time and/or standard time.

Workstations

- 1) VCU-OTS will provide, install, connect and test three (3) PC workstations with Windows 8 Operating system located in each Parking Office and one (1) PC workstation located in the PARCS service provider's office.
 - a) One workstation in each Parking Office shall serve as the primary input point for daily control and interface with the central computer. That workstation shall be licensed and authorized to utilize the Parking Access & Revenue Control System software and shall serve as the display position for the Facility Monitoring System.
 - b) The second & third workstation in each Parking Office shall be available for report generation subsystem, compilation, printing, and for other system users.
 - c) The fourth workstation will be in the PARCS service provider's office and be available for complete support and all programming functions.
 - d) Each workstation shall have Parking Revenue Control client software installed so that it can manage any and all intended functions of the Parking Access & Revenue Control System. Access to specific software functions shall be controlled by username and password logon to the Parking Access & Revenue Control software.



- e) VCU OTS will provide Windows, Office Professional, and Anti-Virus licenses under its enterprise license agreement.

Printers

- 1) VCU OTS will provide, install, connect and test one (1) high-output laser printer: One (1) in a designated location in the Parking Office that shall be used as a networked printer for printing reports from workstations located in the Parking Office.

Vehicle Detection Loops and Vehicle Detectors

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

Intercom System

- 1) The Contractor shall provide a turn-key IP intercom system that consists of two host intercom stations and an integrated microphone and speaker in each Entry Station, Express Exit Station, Automated Pay-on-Foot Stations, Permit and VCU Card lanes.
- 2) The intercom shall be a push-button intercom such that in the event a parker needs assistance while stopped in a lane, the button can be pushed and a connection established between the field location and any host intercom station.
- 3) The intercom system shall utilize VOIP.
- 4) The intercom communications shall be directed to a command desk console located in the Parking Office with roll over capabilities to a second base station as designated by VCU. The Parking Office shall be equipped with an intercom base station that displays the physical location of the incoming intercom call.

- 5) Once activated, two-way communication shall be possible and the intercom line remains open until the parking staff member terminates the call.
- 6) It shall be possible that if one intercom is open, and a second call comes in, the Parking Manager shall be able to place the first call on hold and answer the second call.
- 7) As part of their Proposal, the Contractor shall submit shop drawings of the intercom base station and push button intercom terminals.

EMV & NFC Credit Card Reader Conversions

- 1) The reference to credit card readers for use within the PARCS RFP refers to traditional mag stripe credit card acceptance in use today.
- 2) It is well documented that a conversion to a secure credit card technology to protect the consumer's data must be implemented by August 2015 and eventually by September 2017 for the Petroleum Industry. Any extensions of these dates within the PARCS application must be approved in writing by VCU.
- 3) It is paramount to VCU that the Contractor provides the replacement hardware, software and all technology requirements, including maintaining PCI-DSS Compliance, for all future use, implementation, installation, and PARCS interface of EMV (Chip & Pin) and NFC Payment acceptance devices.
- 4) The Contractor shall provide replacement credit card read devices whether it be EMV and/or NFC where required within the PARCS before August 2015, Contractor must also recertify pursuant to PCI Compliance for all payments and all parking applications at the Entry Station, Automated Payment Stations, and Exit Stations for all methods of credit card payments.

1.42 PCI Compliance/Safeguarding Obligations

1. If the successful Contractor's system accepts credit cards for products and services in this RFP utilizing the vendor's own merchant account, the successful Contractor system complies with all applicable Payment Card Industry Data Security Standards ("PCI Standards" and or PA DSS standards) and Contractor shall defend and hold The Board of Trustees of Virginia Commonwealth University, its designated representatives and their officers, agents and employees, harmless from all claims, liabilities, damages, or judgments involving a third party, including costs and attorney fees, which arise as a result of a Contractor's failure to meet any of its obligations under such PCI Standards. Contractor shall fully cooperate with VCU in all reasonable requests related to PCI Standards compliance. Contractor shall submit a copy of its annual certification of PCI or PA DSS compliance or provide a notification of compliance as shown on the Visa's Global Registry of Service Providers-PCI DSS Validated Entities compliance list.
2. To the extent the Contract which may be awarded by this RFP will allow the Contractor to have access to customer information, as that term is defined in 16 C.F.R. §314.2(b), which is required to be protected under the Gramm-Leach-Bliley Act (15 U.S.C. §6801-6809) as well as credit card information received in the course of business by VCU, then the Contractor agrees to comply with and adhere to the terms and provisions described in General Terms and Conditions which shall

form a material part of the awarded Contract.

Credit Card Payments and Compliance Questions

- 1) Describe in detail and provide a flowchart of the entire credit card process including all third party appliances and software.
- 2) Is the process for credit card processing PCI DSS and/or PA-DSS compliant? Describe your cardholder processing systems' Payment Card Industry (PCI) Payment Application.
- 3) Does the implementation, including any required auxiliary servers, store the card holder PAN on VCU hosted servers for any length of time at any time during the credit card payment process?
- 4) Please provide information on where VCU can verify your application and/or payment gateway compliance - on the PCI Standards validated payment applications list or on the Visa's Global Registry of Service Providers – PCI DSS Validated Entities compliance list?
- 5) For implementation of your solution that includes VCU hosted payment card processing solutions, does your application store card holder PAN on disk located on our network at any time or do you process and transmit cardholder data to a payment gateway?
- 6) Does your VCU hosted payment card processing solution interface with any other system that would also be hosted on VCU network that stores cardholder PAN on disk located on VCU network at any time?
- 7) For implementation of your solution that includes VCU hosted payment card processing, please provide a detailed diagram that includes the flow of cardholder data from the user entry through your system, out to the payment gateway, and merchant services processor for verification, and back to your application.
- 8) For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. Respondents must specify how the application will meet PCI compliance for payments.
- 9) Describe in detail and provide a flowchart on how the credit card payment is relayed in the system that you are proposing from the handheld devices in remote locations to the PARC system.

Statement of Work

- 1) Provide a Statement of Work outlining tasks to be performed by the respondent, VCU and any third party contractors.

1.43 Software Licenses

1. Contractor shall provide client software for installation by VCU OTS on any department workstation. User licenses for commercial software, if required, shall be Concurrent User licenses so that any authorized user can operate the system up to a maximum of six (6) users concurrently.
2. Contractor shall furnish an unlimited software license for the proprietary software developed by or for the Contractor for the operation of the Parking Access & Revenue Control System. This

license shall be a site license which allows for the potential movement of equipment, changes in quantities of lanes and other changes which are likely in a University environment. This license shall have no sunset date; rather it shall remain in effect during the useful life of the Parking Access & Revenue Control System as provided and installed under this contract.

3. Contractor shall assist, if requested, in the installation and testing of all revenue control software on, or licensed to, computers owned by VCU and accessing the system through VCU's communications network.
4. Contractor grants to VCU an irrevocable, perpetual, nonexclusive, fully paid-up right and license to use, display, copy, and maintain the Software for use in connection with the Parking Access & Revenue Control System, including the right to make back-up copies. Contractor retains all intellectual property rights to the Software.
5. Source code protection: At VCU's request and sole expense, Contractor will furnish any and all source codes for the Software to a third party to be held in escrow for the benefit of VCU for such period of time as VCU shall determine necessary or appropriate, pursuant to an escrow agreement with the customary terms and conditions, including a provision specifying that, in the event that Contractor, at any time, dissolves, liquidates, ceases to exist, is subject to any insolvency proceeding, or no longer provides the services it provides on the date of execution of this Agreement, the source code will automatically become the property of VCU.

Updates and Upgrade Questions

Submit Responses to the following:

- 1) How often are version updates to your software typically released?
- 2) Are version updates included at no additional charge to customers?
- 3) What responsibilities for software upgrades are assumed by VCU?
- 4) Supply a copy of your upgrade and development calendar including all hardware and software components, applications and third party services during the next three (3) years
- 5) What is the expected timeframe for release of the next product version which requires a different platform or an operating system upgrade?
- 6) Have there been major enhancements to the product in the last year, and if so, please describe them?
- 7) List major enhancements planned for the coming year.
- 8) How many levels of software releases are currently supported?
- 9) What happens if upgrades negatively affect client's system? What is the plan to restore system to its state prior to the upgrade?

Customization Questions

- 1) Describe the customization options (format/ content) of the screens, forms, reports, etc. available in the proposed PARC system for VCU.
- 2) Describe the tools utilized by end-users in the customization process.

- 3) Describe the extent of training and programming skills needed to become proficient in customizing the software of the system
- 4) Does your company require access to VCU Network 365/24/7? How frequently are updates, patches, etc., normally performed? Please explain.

1.44 Third party services

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

1.45 Execution

Inspection

- 1) Inspect setting surfaces, power wiring and conduit installation for equipment and report immediately in writing to VCU, as required in the General Conditions, any conditions of Related Work which are unsuitable for proper execution of this Work.

Installation

- 1) Install Parking Access & Revenue Control System in accordance with Manufacturer's recommendations and the approved shop drawings.
- 2) Installation shall be by factory-trained technicians experienced in installation of PARCS equipment of this type.
Provide and pull all control wire and make final connections of all wiring.
- 3) Installation schedules shall be coordinated with VCU representative to minimize disruption to ongoing parking operations. At a minimum, Contractor shall comply with the following limitations with respect to closure of lanes for installation work:
 - a) No entry lanes can be out of service in any location between 6 A.M. and 10 A.M. Monday ~ Friday.
 - b) No exit lanes can be out of service in any location between 3 P.M. and 8 P.M. Monday

- Friday.

- 4) Contractor shall provide VCU with an initial Installation Plan and Transition Plan, within 30 days of Notice-to-Proceed, which describes the sequence of equipment changes, installation and lane closures, including the expected duration of closures.
- 5) An updated Installation Plan shall be provided to VCU on Monday of each week. The plan updates shall include a progress report and any proposed changes in the installation sequence or schedule.
- 6) Subject to the operational needs of VCU, Contractor may make adjustments to the Installation Plan through the weekly updates, except that changes occurring within 5 working days of the update shall require specific written permission from VCU.

Documentation, Shop Drawings, and Manuals

- 1) Prior to acceptance of the system, the Contractor shall provide VCU with As-Built Drawings showing the actual location of each piece of equipment and of each conduit and communication run from equipment to controller or electrical panels, network fiber panel and to the PARCS server.
- 2) One month prior to system acceptance testing, the Contractor shall submit for approval a draft of the PARCS Manufacturer's operating manuals.

Factory Acceptance Testing (FAT)

- 1) The Contractor shall provide within its proposal a Factory Acceptance Test (FAT) to include a comprehensive testing procedure and test schedule acceptable to VCU, the Consultant and its designated representatives.
- 2) All equipment and associated materials utilized in this system shall be of new manufacture. No used or refurbished materials shall be utilized except in the case of already installed equipment at VCU and then only with VCU's written approval. All equipment shall have successfully passed formal manufacturing tests and quality assurance inspections to validate compliance with the design RFP. Formal records of testing and inspection shall be maintained by manufactures and provided to VCU with the equipment shipment. No equipment shall be installed at VCU that has failed final manufacture's test and inspection performance, materials quality and/or workmanship.
- 3) Because of the significant investment and the critical nature of this system and equipment as it relates to VCU's operational Permit access control, revenue stream and customer satisfaction, it is requested by VCU that the functionality described within this RFP is achieved, the Contractor shall demonstrate the PARCS at their factory or agreed upon site within the continental United States, to be observed by VCU representatives prior to the shipment of equipment to the project site.
- 4) Travel expenses by VCU representatives will not be the responsibility of the Contractor.
- 5) In addition to the selected Contractor's testing, the Consultant will develop test procedures independently to confirm that the equipment and system installed conforms to the requirements in the RFP. Test results for individual components and the overall

system shall meet all technical requirements as stated in the RFP.

- a) RFID Permit data capture and access control functions of all credentials.
- b) Ticket issuance, including alarm and reporting of stolen and back-out tickets.
- c) Safety reflect & rebound feature of barrier gate arms.
- d) Processing by the Automated Payment Station of all transaction types in regular and exception categories. Processing shall specifically include testing of stolen and back-out tickets.
- e) Accurate flow of revenue and transaction data from all transaction types, regular and exception, to the daily and monthly reports.
- f) Correct application of discounts and validations in each active category.
- g) Automatic generation and printing of Payment Station vault and bank reports by the central computer.
- h) Generation of all daily revenue and auditing reports by the central computer.
- i) Generation and reconciliation of monthly revenue and transaction reports to daily revenue and transaction reports (minimum 3 days).
- j) Generation of all facility utilization reports.
- k) Generation of a full report set and verification by the Contractor that all report compilations, calculations, sub-totals and totals are functioning properly.
- l) Proper operation of the count control system, including directional counting feature, automatic lane closure and automatic lane reopen functions.
- m) Proper operation of parking control equipment and "FULL" signs during simulated facility "FULL" conditions.
- n) Proper operation of the intercoms, including sub-station call-down transfers.

Training

- 1) Provide eighty (80) hours of on-site instructions to VCU staff. Specific allocation of training time to be determined by VCU.
- 2) Instructions shall include but not be limited to, use of Automated Payment Stations, Entry & Exit Stations, use and operations of count system and differential counter configurations, use and operation of barrier gates, use and operation of Validation system, Event Reservation System, control of automatic report generation, production of "on demand" reports, specialized report creation, and methods of controlling revenue and auditing tickets available with the system specified.
- 3) Include training and assistance to VCU-OTS with interfacing the Parking Access & Revenue Control System with VCU web site for real time activity posting, as well any other IT issue as it relates to the PARCS. Coordinate schedule with VCU to accommodate shift schedules.
- 4) Provide an additional sixteen (16) hours of on-site training, in any area, at VCU's request, during the first twelve (12) months after system start-up.
- 5) Provide an additional eight (8) hours of on-site training, in any area, at VCU's request,

within twelve (12) months after system acceptance.

- 6) Contractor shall provide (2) two complete product Service & Support technical manuals on all lane equipment in print and a CD with all in a PDF format.
- 7) Contractor shall provide (2) two complete PARCS Software Operating & Support technical manuals on all Software modules contained within PARCS in print, and a CD with all manuals in PDF format.

Disaster Recovery Plan

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

System Acceptance

The Parking Access & Revenue Control Systems will be considered accepted:

- 1) After being 100 percent operational and after having performed satisfactorily for thirty (30) continuous business days with no more than six (6) hours of cumulative down time, for all devices combined, which is defined as a mechanical or system malfunction that causes a device to be inoperable. Down time shall be defined as the time between the time that notice of the malfunction is given to Contractor's service representative, or a 24 hour contact point, and restoration of the device or system to full service. When a paging device is the only means of contact, down time shall commence fifteen (15) minutes after initiation of the page regardless of the response, or lack of response, from the service representative.
- 2) After demonstration, to the satisfaction of VCU, that all reporting processes are functioning properly and accurately for a full month reporting period, including all month-end reports.
- 3) After VCU's authorized representative has signed a formal Letter of Acceptance confirming that these conditions have been satisfied.

1.46 Company Background

1. List your company's technology and/or distribution alliances and partnerships, including the partner name, address, telephone number, and a brief description of the nature of the

relationship.

2. List any current or previous regulatory actions against your company or its officials in the past five (5) years. Include the date(s) of action(s) and resolution.
3. Has your firm or any of its current officials ever filed for bankruptcy protection?
4. Has your firm or any of its current officials ever had tax liens filed in any state or federally?
5. Has your firm or any of its current officials had any judgments against it by any taxing authority within the past ten (10) years? If so, list the dates, name of authority, and disposition.
6. Has your firm been found guilty of any patent or trademark violations in the past ten (10) years? If so, provide complete details including case number and jurisdiction.
7. In what state is your firm incorporated and where is its headquarters located?
8. List any names your firm has previously operated under since beginning operations.

1.47 Financial Proposal

1. The Financial Summary shall contain the complete financial offer made to VCU fully describing all aspects of the proposal and the costs including hardware/equipment, software, software license, service support/maintenance/upgrades, customization and modifications, system manuals and documentation, training, data conversion, any transaction and remittance fees as well as professional services to be provided by Contractor and any third party initially and per year beyond those listed in this RFP. Describe in detail the financial proposal you are offering VCU for the Products and Services to be provided. Any transaction fees paid by VCU shall be clearly identified.
2. Proposals are requested for VCU hosted and contractor hosted systems. Each host option should be treated as a separate pricing proposal.
3. Each pricing proposal shall include an itemization of all costs to VCU.
4. Respondents should be creative in presenting various alternatives for providing services at the least possible cost to VCU. VCU will select the financial option that best meets the overall needs of faculty, staff, and students.
5. It is the Respondent's responsibility to verify any information, measurements and obtain any clarifications prior to submitting the bid response. VCU is not liable for any errors or misinterpretations made by the Respondent in response to this RFP.
6. The quoted price involving equipment shall include all necessary accessories to make a complete functioning unit unless specifically stated in the RFP.
7. Include an example of your firm's standard software support/maintenance agreement.
8. What is the discount(s) applied to the cost of the products. Confirm that this is the minimum discount for all product purchases throughout all of the terms of the contract.
9. If using a third party credit card processor/gateway detail the credit card transaction fees associated.
10. Quote hourly rate for work not covered by maintenance agreements

Project References

- 1) Respondent shall supply names, addresses, and telephone numbers of three (3) business references for whom the contractor has provided products and services similar to those outlined within the RFP.
- 2) The Respondent shall grant permission to VCU to contact the references. If prior permission is required of the business reference in order to provide this information, the contractor shall obtain permission to include this information with the proposal.
- 3) For each reference, include:
 - a) Name, address, phone number, fax number and email addresses of the Reference
 - b) Date of contract commencement
 - c) Brief narrative of the project including installation/transition start and completion dates.
- 4) Respondent shall provide an implementation and transition schedule for the proposal submitted.

Additional Information

- 1) Please provide any additional information that the Respondent feels should be considered when evaluating their proposal.
- 2) Respondent may present any creative approaches that might be appropriate. The Respondent may also provide supporting documentation that would be pertinent to this RFP.

Laurel Street Deck								
Lane Description:	Red/Green Lane Control Lights	FULL Sign	RFID Antenna	PROX/MAG/BC Readers	IP Intercom	Barrier Gate	UPS	Loop Detector
Entry Lane #1	1	1	1	1	1	1	1	2
Exit Lane #2	1		1	1	1	1	1	2
Total Units . . .	2	1	2	2	2	2	2	4
Unit Costs:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Unit Costs:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment Costs:	\$	-						
Installation Costs	\$	-						
Electrical Work	\$	-						
Concrete Work	\$	-						
Total Project:	\$	-	-	-	-	-	-	-

Broad & Belvidere Deck								
Lane Description:	Red/Green Lane Control Lights	FULL Sign	RFID Antenna	PROX/MAG/BC Readers	IP Intercom	Barrier Gate	UPS	Loop Detector
Entry Lane #1	1	1	1	1	1	1	1	2
Exit Lane #1	1		1	1	1	1	1	2
Total Units . . .	2	1	2	2	2	2	2	4
Unit Costs:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Unit Costs:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment Costs:	\$	-						
Installation Costs	\$	-						
Electrical Work	\$	-						
Concrete Work	\$	-						
Total Project:	\$	-	-	-	-	-	-	-

Pricing – Schedule C	
Virginia Commonwealth University	
Parking Revenue and Access Control System	
Information Technology Equipment Pricing	
YEAR	Cost
One	Included
Two	Included
Three	\$ -
Four	\$ -
Five	\$ -
Six	\$ -
Seven	\$ -
Total	\$ -

Pricing – Schedule D	
Virginia Commonwealth University	
Parking Revenue and Access Control System	
Training Pricing	
Training	Cost
80 hours	\$ -
16 hours	\$ -
8 hours	\$ -
Total	\$ -

Pricing – Schedule E	
Virginia Commonwealth University	
Parking Revenue and Access Control System	
INSTALLATION COSTS	
LOCATION	Cost
MPC Parking Office	\$ -
MCV Parking Office	\$ -
N Deck	\$ -
D Deck	\$ -
8th Street Deck	\$ -
Bowe Street Deck	\$ -
Henry Street West Deck	\$ -
Henry Street East Deck	\$ -
Jefferson Street Deck	\$ -
Laurel Street Deck	\$ -
West Broad Street Deck	\$ -
West Carey Street Deck	\$ -
West Main Street Deck	\$ -
Total	\$ -

Pricing – Schedule F				
Virginia Commonwealth University				
Parking Revenue and Access Control System				
Miscellaneous Pricing				
Equipment	QTY	MSRP Cost	Unit Cost	Total Cost
Custom Tickets	500,000	\$ -	\$ -	\$ -
Custom Validation Tickets	20,000	\$ -	\$ -	\$ -
Service/Maintenance 1st Year		\$ -	\$ -	\$ -
Service/Maintenance 2nd Year		\$ -	\$ -	\$ -
Freight		\$ -	\$ -	\$ -
Total				

Pricing – Schedule G				
Virginia Commonwealth University				
Parking Revenue and Access Control System				
Spare Parts				
Part Description	QTY	Unit MSRP	Unit Cost	Total Cost
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
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		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
		\$ -	\$ -	\$ -
Total				



SECTION 4 CONTRACT TERM AND COOPERATIVE PROCUREMENT:

The period of the contract shall be from the award through implementation of the system then continuing until the system is fully installed and operational and includes the first warranty/maintenance period. There are up to nine (9) successive one year renewal options of the contract. VCU will consider the option of a longer initial term or renewal term(s) for a potential aggregate term of the contract not to exceed the initial term described above and a total of nine (9) renewal years based upon the attractiveness of the Offeror's proposal.

It is the intent of this solicitation and resulting contract(s) to allow for cooperative procurement. Accordingly, any public body, public or private health or educational institution or lead-issuing institution's affiliated foundations may access any resulting contract(s) if authorized by the contractor.

Additional information is available at:

http://procurement.vcu.edu/files/RFP_Website_Link_Cooperative_Procurement.pdf

SECTION 5 OPTIONAL USE CONTRACT:

The resulting contract(s) will be an optional use contract. VCU is in no way required to make purchases from the Contractor and may in its sole discretion purchase the identical and/or similar goods/services from other sources. Any estimates/quantities contained herein do not represent a purchase commitment by VCU.

SECTION 6 REPORTING AND DELIVERY REQUIREMENTS:

Information is available at:

http://procurement.vcu.edu/files/RFP_Website_Link_Reporting_Delivery_Requirements.pdf

SECTION 7 PRE-PROPOSAL CONFERENCE:

OPTIONAL PRE-PROPOSAL CONFERENCE: An optional pre-proposal conference will be held at 9:00 AM (EDT) on 6/10/2014 at the Academic Learning Commons, 1000 Floyd Avenue, Room MCALC 1104, Richmond, VA 23220. The purpose of the conference is to allow potential Offerors an opportunity to present questions and obtain clarification relative to any facet of this solicitation.

While attendance at this conference will not be a prerequisite to submitting a proposal, Offerors who intend to submit a proposal are encouraged to attend. Bring a copy of the solicitation with you. Any changes resulting from this conference will be issued in a written addendum to the solicitation.

SECTION 8 PROPOSAL RESPONSE REQUIREMENTS AND SUBMISSION INSTRUCTIONS:

This section describes the RFP proposal response requirements and submission instructions. Proposal

response for Sections 1-3 must be written in the same order as outlined above. **Respond to all the questions and requests for information in Sections 1-3.** The words shall and must designate mandatory requirements and the words should or may designate non-mandatory requirements. Proposals should be prepared simply and economically, providing a straightforward, concise description of capabilities. Emphasis should be placed on completeness and clarity of content. Failure to submit all information requested may result in the elimination of the proposal from consideration. Proposals which are substantially incomplete or lack key information may be rejected by VCU.

Submit the information requested in this Section 7 below:

1. Utilization of the words “shall” or “must” in Sections 1-3 indicates a mandatory requirement:

Does / Shall your company comply with mandatory requirements as presented in Sections 1-3?

Yes _____ No _____

If “NO,” identify the specific requirement and the reason for non-compliance.

Utilization of the words “should” or “may” in Sections 1 indicates a non-mandatory requirement.

Does / Shall your company comply the non-mandatory requirements as presented in Sections 1-3 (i.e. “should” becomes “shall”)?

Yes _____ No _____

If “NO,” identify the specific requirement and the reason for non-compliance.

2. Essential Procurement Needs

a. Freight terms shall be F.O.B. Destination/Prepaid with inside delivery; additional charges shall not be allowed.

b. The terms and conditions of the RFP govern the resulting contract and not the Contractor terms and conditions or license agreement.

c. Any travel and living expenses must be included in the cost of the implementation and installation services. Additional charges shall not be allowed.

3. Small, Women-Owned and Minority-Owned Business Commitment:

Firm must submit complete Appendix I which is available at

http://procurement.vcu.edu/files/RFP_Website_Link_Appendix_1.pdf unless the firm is a DMBE certified small business. DMBE certified small businesses must include their certification number on the coversheet of this RFP, but are not required to complete Appendix I.

4. Invoicing and Payment:

Firm must submit complete Appendix II which is available at:

http://procurement.vcu.edu/files/RFP_Website_Link_Appendix_2.pdf

5. Proposal Submission Instructions:



- a. Complete and return Page 1 of the RFP. Proposals shall be signed by an authorized representative of the Offeror.
- b. Complete and return signed addenda acknowledgments (if applicable).
- c. Submit one (1) original hard copy (paper) of the entire proposal, including all attachments and proprietary information. The original proposal must be clearly marked on the outside of the proposal. Submit one (1) unsecured, electronic copy (on a disc or flash drive) of the entire proposal including all attachments and INCLUDING ANY PROPRIETARY INFORMATION and one (1) unsecured, electronic copy (on a disc or flash drive) of the entire proposal including all attachments and EXCLUDING ANY PROPRIETARY INFORMATION. These discs or flash drives must be clearly marked on the outside whether it includes or excludes proprietary information.
- d. Submit seven (7) unsecured electronic copies (on a disc or flash drive) of the entire proposal, INCLUDING ANY PROPRIETARY INFORMATION and all attachments for the Evaluation Committee members.
- e. If applicable, the outside of the proposal must be marked to denote proprietary information is contained in the documents. Written notice of proprietary information must be submitted as the first page of the Offeror's proposal. Notice must specifically identify the applicable portions of the Offeror's proposal that contains data or materials to be protected and state the reasons why protection is necessary. In addition, the specific (i.e. specific words, figures or paragraphs) proprietary or trade secret material submitted, must be identified on the applicable page(s) within the Offeror's proposal, by some distinct method, such as highlighting, underlining, etc. The classification of an entire proposal document, line item prices and/or total proposal prices as proprietary or trade secrets is not acceptable and will result in rejection and return of the proposal.
- f. Communications regarding this Request for Proposals (RFP) shall be formal from the date of issue for this RFP, until either a Contractor has been selected or the University Purchasing Department rejects all proposals. Formal communications shall be directed to the University Purchasing Department. Informal communications including but not limited to, request for information, comments or speculations, regarding this RFP to any University employee other than a Purchasing Department representative may result in the offending Offeror's proposal being rejected.
- g. Additional information is available at:
http://procurement.vcu.edu/files/RFP_Website_Link_Additional_Information.pdf

SECTION 9 ORAL PRESENTATION:

Offerors who submit a proposal in response to this RFP may be required to conduct an oral presentation of their proposal to VCU. Oral presentations are an option and may or may not be required. Should an oral presentation be required, VCU will designate the date and location for the presentation; the date is critical and alternative dates will not be available.

Offerors who are invited to conduct an oral presentation shall include the individual(s) who would be the primary point of contact for VCU, on the Offerors presentation team.

SECTION 10 EVALUATION AND AWARD CRITERIA:

Proposals will be evaluated based upon the information provided in the Offeror's proposal using the following criteria: Offeror's qualifications and experience; methodology/approach to providing the requirements stated herein; price; and the Offeror's status as a Virginia certified SWaM Business or the Offeror's plans to utilize Virginia DMBE certified SWaM Businesses in the Offeror's performance of the contract. Selection shall be made of two or more Offerors deemed to be fully qualified and best suited among those submitting proposals. The Institution reserves the right to make multiple awards as a result of the solicitation. Negotiations shall be conducted with Offerors so selected. After negotiations have been conducted with each Offeror so selected, the agency shall select the Offeror which, in its opinion, has made the best offer, and shall award the contract to that Offeror. The Institution may cancel this Request for Proposals or reject proposals at any time prior to an award, and is not required to furnish a statement of the reason why a particular proposal was not deemed to be the most advantageous. (Governing Rules Section 49.D) Should the Institution determine in writing and in its sole discretion that only one Offeror has made the best proposal, a contract may be negotiated and awarded to that Offeror. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation.

Notice of Award(s) or Notice of Intent to Award may be accessed electronically at <http://www.eva.virginia.gov>.

SECTION 11 GENERAL TERMS AND CONDITIONS:

General Terms and Conditions can be viewed at:

<http://procurement.vcu.edu/files/General-Terms-and-Conditions.pdf>

SECTION 12 SPECIAL TERMS AND CONDITIONS:

1. **ADVERTISING:** In the event a contract is awarded for supplies, equipment, or services resulting from this proposal, no indication of such sales or services to Virginia Commonwealth University will be used in product literature or advertising. The Contractor shall not state in any of the advertising or product literature that the Commonwealth of Virginia or any agency or institution of the Commonwealth has purchased or uses its products or services.
2. **AUDIT:** The Contractor shall retain all books, records, and other documents relative to this contract for five (5) years after final payment, or until audited by the Commonwealth of Virginia, whichever is sooner. The agency, its authorized agents, and/or State auditors shall have full access to and the right to examine any of said materials during said period.
3. **AVAILABILITY OF FUNDS:** It is understood and agreed between the parties herein that the agency shall be bound hereunder only to the extent of the funds available or which may hereafter become available for the purpose of this agreement.
4. **PROPOSAL ACCEPTANCE PERIOD:** Any proposal in response to this solicitation shall be valid for sixty (60) days. At the end of the sixty (60) days, the proposal may be withdrawn at the written request of the Offeror. If the proposal is not withdrawn at that time it remains in effect until an award is made or the solicitation is cancelled.
5. **PROPOSAL PRICES:** Proposal prices shall be in the form of a firm unit price for each item during the contract period.
6. **CANCELLATION OF CONTRACT:** The purchasing agency reserves the right to cancel and terminate



any resulting contract, in part or in whole, without penalty, upon sixty (60) days written notice to the Contractor. In the event the initial contract period is for more than twelve (12) months, the resulting contract may be terminated by either party, without penalty, after the initial twelve (12) months of the contract period upon 60 days written notice to the other party. Any contract cancellation notice shall not relieve the Contractor of the obligation to deliver and/or perform on all outstanding orders issued prior to the effective date of cancellation.

7. **SPECIAL EDUCATIONAL OR PROMOTIONAL DISCOUNTS:** The Contractor shall extend any special educational or promotional sale prices or discounts immediately to the Commonwealth during the term of the contract. Such notice shall also advise the duration of the specific sale or discount price.
8. **EXTRA CHARGES NOT ALLOWED:** The proposal price shall be for complete installation ready for Commonwealth's use, and shall include all applicable freight and installation charges; extra charges will not be allowed.
9. **IDENTIFICATION OF PROPOSAL:** The proposal package should be identified as follows:

10. From: _____
Name of Offeror Due Date Time

Street or Box Number RFP No.

City, State, Zip Code +4 RFP Title

Name of Contract / Purchase Officer or Buyer: Jackie Colbert

11. The package should be addressed as directed on Page 2 of the solicitation.
12. If a proposal is not clearly identified, the Offeror takes the risk that the proposal may be inadvertently opened and the information compromised which may cause the proposal to be disqualified. Proposals may be hand delivered to the designated location in the office issuing the solicitation. No other correspondence or other proposals should be placed in the envelope.
13. **LATE PROPOSALS:** To be considered for selection, proposals must be received by the issuing office by the designated date and hour. The official time used in the receipt of proposals is that time on the automatic time stamp machine in the issuing office. Proposals received in the issuing office after the date and hour designated are automatically disqualified and will not be considered. The University is not responsible for delays in the delivery of mail by the U.S. Postal Service, private couriers, or the intrauniversity mail system. It is the sole responsibility of the Offeror to insure that its proposal reaches the issuing office by the designated date and hour.
14. **INDEMNIFICATION:** Contractor agrees to indemnify, defend and hold harmless the Commonwealth of Virginia, its officers, agents, and employees from any claims, damages and actions of any kind or nature, whether at law or in equity, arising from or caused by the use of any materials, goods, or equipment of any kind or nature furnished by the Contractor/any services of any kind or nature furnished by the Contractor, provided that such liability is not attributable to the sole negligence of the using agency or to failure of the using agency to use the materials, goods, or equipment in the manner already and permanently described by the Contractor on the materials, goods, or equipment delivered.
15. **LIMITATION OF LIABILITY:** To the maximum extent permitted by applicable law, the Contractor will not be liable under this contract for any indirect, incidental, special or consequential damages, or

damages from loss profits, revenue, data or use of the supplies, equipment and/or services delivered under this contract. This limitation of liability will not apply, however, to liability arising from: (a) personal injury or death; (b) defect or deficiency caused by willful misconduct or negligence on the part of the Contractor; or (c) circumstances where the contract expressly provides a right to damages, indemnification or reimbursement.

16. **PRIME CONTRACTOR RESPONSIBILITIES:** The Contractor shall be responsible for completely supervising and directing the work under this contract and all subcontractors that he may utilize, using his best skill and attention. Subcontractors who perform work under this contract shall be responsible to the prime Contractor. The Contractor agrees that he is as fully responsible for the acts and omissions of his subcontractors and of persons employed by them as he is for the acts and omissions of his own employees.
17. **RENEWAL OF CONTRACT:** This contract may be renewed by the Commonwealth for nine (9) successive one (1) year periods or an aggregate of nine (9) years under the terms and conditions of the original contract except as stated in 1. below. Price increases may be negotiated only at the time of renewal. Written notice of the Commonwealth's intention to renew should be provided approximately 60 days prior to the expiration date of each contract period:

If the Commonwealth elects to exercise the option to renew the contract for additional renewal terms the additional renewal term(s) shall not exceed the contract price(s) of the previous contract period increased/decreased by more than the percentage increase/decrease of the All Items category of the CPI-W section of the Consumer Price Index of the United States Bureau of Labor Statistics for the latest twelve months for which statistics are available.

18. **SUBCONTRACTS:** No portion of the work shall be subcontracted without prior written consent of the purchasing agency. In the event that the Contractor desires to subcontract some part of the work specified herein, the Contractor shall furnish the purchasing agency the names, qualifications and experience of their proposed subcontractors. The Contractor shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall assure compliance with all requirements of the contract.
19. **WARRANTY (COMMERCIAL):** The Contractor agrees that the supplies or services furnished under any award resulting from this solicitation shall be covered by the most favorable commercial warranties the Contractor gives any customer for such supplies or services and that the rights and remedies provided therein are in addition to and do not limit those available to the Commonwealth by any other clause of this solicitation. A copy of this warranty should be furnished with the proposal.
20. **WORK SITE DAMAGES:** Any damage to existing utilities, equipment or finished surfaces resulting from the performance of this contract shall be repaired to the Commonwealth's satisfaction at the Contractor's expense.
21. **eVA BUSINESS-TO-GOVERNMENT CONTRACTS AND ORDERS:** The solicitation/contract will result in purchase order(s) with the eVA transaction fee specified below assessed for each order.
For orders issued July 1, 2011 thru June 30, 2013, the Vendor Transaction Fee is:
DMBE-certified Small Businesses: 0.75%, Capped at \$500 per order.
Businesses that are not DMBE-certified Small Businesses: 0.75%, Capped at \$1,500 per order.
For orders issued July 1, 2013, and after, the Vendor Transaction Fee is:
DMBE-certified Small Businesses: 1%, Capped at \$500 per order.
Businesses that are not DMBE-certified Small Businesses: 1%, Capped at \$1,500 per order.
The specified vendor transaction fee will be invoiced, by the Commonwealth of Virginia Department of General Services, approximately 30 days after the corresponding purchase order is issued and



payable 30 days after the invoice date. Any adjustments (increases/decreases) will be handled through purchase order changes.

The eVA Internet electronic procurement solution, website portal www.eva.virginia.gov, streamlines and automates government purchasing activities in the Commonwealth. The portal is the gateway for vendors to conduct business with state agencies and public bodies.

Vendors desiring to provide goods and/or services to the Commonwealth shall participate in the eVA Internet e-procurement solution and agree to comply with the following: If this solicitation is for a term contract, may provide an electronic catalog (price list) or index page catalog for items awarded. The format of this electronic catalog shall conform to the eVA Catalog Interchange Format (CIF) Specification that can be accessed and downloaded from www.eVA.virginia.gov. Contractors should email Catalog or Index Page information to eVA-catalog-manager@dgs.virginia.gov.

22. **GRAMM-LEACH-BLILEY ACT:** The Contractor shall comply with the Act by implementing and maintaining appropriate safeguards to protect and prevent unauthorized release of student, faculty and staff nonpublic information. Nonpublic information is defined as social security numbers, or financial transactions, bank, credit and tax information.
23. **CONTRACT SUMMARY:** The Contractor may be asked to provide to the University within fourteen (14) days after award of contract, an unsecured electronic summary of the contract. All the main features of the contract, including pricing, must be summarized. The contract summary will provide information for authorized users that choose to access the contract.
24. **CONFIDENTIALITY:** The Commonwealth agrees that neither it nor its employees, representatives, or agents shall knowingly divulge any proprietary information with respect to the operation of the software, the technology embodied therein, or any other trade secret or proprietary information related thereto, except as specifically authorized by the contractor in writing or as required by the Freedom of Information Act or similar law. It shall be the contractor's responsibility to fully comply with Section 2.2-4342 F. of the Code of Virginia. All trade secret or proprietary information must be identified in writing or other tangible form and conspicuously labeled as "proprietary" either prior to or at the time of submission to the Commonwealth.
25. **LIMITATION OF USE:** The Commonwealth's right to use computer software developed entirely at private expense may be limited by the contractor as stipulated in this contract. Notwithstanding any provision to the contrary however, the Commonwealth shall have at a minimum: unlimited use of the software on the equipment for which it is purchased; use of the software on a secondary system for backup purposes should the primary system become unavailable, malfunctions, or is otherwise rendered inoperable; use of the software at another Commonwealth site should the system be entirely transferred to that location; the right to make a backup copy for safekeeping; the right to modify or combine the software with other programs and materials at the Commonwealth's; risk; and the right to reproduce any and all documentation provided such reproduction is for the sole use of the Commonwealth. These rights are perpetual and irrevocable; in the event of any actual or alleged breach by the Commonwealth, the contractor's sole remedy shall be to pursue a monetary claim in accordance with Section 2.2-4363 of the Code of Virginia.
26. **NEW PRODUCTS:** Unless otherwise expressly stated in this solicitation, all equipment furnished under the contract shall be new, unused equipment. All software provided under the contract shall be the latest version available to the general public as of the due date of this solicitation.
27. **QUALIFIED REPAIR PERSONNEL:** All warranty, maintenance and hosting services to be performed on the items specified in this solicitation as well as any associated hardware or software shall be performed by qualified technicians properly authorized by the manufacturer to perform such services. The Commonwealth reserves the right to require proof of certification prior to award and at any time during the term of the contract.

28. **SOFTWARE UPGRADES:** The Commonwealth shall be entitled to any and all upgraded versions of the software covered in the contract that becomes available from the contractor. The maximum charge for upgrade shall not exceed the total difference between the cost of the Commonwealth's current version and the price the contractor sells or licenses the upgraded software under similar circumstances.
29. **THIRD PARTY ACQUISITION OF SOFTWARE:** The contractor shall notify the procuring agency in writing should the intellectual property, associated business, or all of its assets be acquired by a third party. The contractor further agrees that the contract's terms and conditions, including any and all license rights and related services, shall not be affected by the acquisition. Prior to completion of the acquisition, the contractor shall obtain, for the Commonwealth's benefit and deliver thereto, the assignee's agreement to fully honor the terms of the contract.
30. **TITLE OF SOFTWARE:** By submitting a proposal, the Offeror represents and warrants that it is the sole owner of the software or, if not the owner, that it has received all legally required authorizations from the owner to license the software, has the full power to grant the rights required by this solicitation, and that neither the software nor its use in accordance with the contract will violate or infringe upon any patent, copyright, trade secret, or any other property rights of another person or organization.
31. **WARRANTY AGAINST SHUTDOWN DEVICES:** The contractor warrants that the equipment and software provided under the contract shall not contain any lock, counter, CPU references, virus, worm, or other device capable of halting operations or erasing or altering data or programs. Contractor further warrants that neither it, nor its agents, employees, or subcontractors shall insert any shutdown device following delivery of the equipment and software.
32. **NONVISUAL ACCESS TO TECHNOLOGY:** All information technology which, pursuant to this Agreement, is purchased or upgraded by or for the use of any State agency or institution or political subdivision of the Commonwealth (the "Technology") shall comply with the following nonvisual access standards from the date of purchase or upgrade until the expiration of this Agreement: Effective, interactive control and use of the Technology shall be readily achievable by nonvisual means;
The Technology equipped for nonvisual access shall be compatible with information technology used by other individuals with whom any blind or visually impaired user of the Technology interacts; Nonvisual access technology shall be integrated into any networks used to share communications among employees, program participants or the public; and
The technology for nonvisual access shall have the capability of providing equivalent access by nonvisual means to telecommunications or other interconnected network services used by persons who are not blind or visually impaired.

Compliance with the foregoing nonvisual access standards shall not be required if the head of the using agency, institution or political subdivision determines that (i) the Technology is not available with nonvisual access because the essential elements of the Technology are visual and (ii) nonvisual equivalence is not available.

Installation of hardware, software, or peripheral devices used for nonvisual access is not required when the Technology is being used exclusively by individuals who are not blind or visually impaired, but applications programs and underlying operating systems (including the format of the data) used for the manipulation and presentation of information shall permit the installation and effective use of nonvisual access software and peripheral devices.

If requested, the Contractor must provide a detailed explanation of how compliance with the foregoing nonvisual access standards is achieved and a validation of concept demonstration.

The requirements of this Paragraph shall be construed to achieve full compliance with the Information Technology Access Act, §§ 2.1-807 through 2.1-811 of the Code of Virginia.



RFP - Addendum

DATE: June 9, 2014

ADDENDUM NO. 01 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

A handwritten signature in blue ink that reads "Jackie Colbert". The signature is written in a cursive, flowing style.

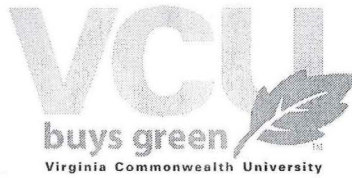
Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Please submit questions about the RFP requirements in writing to jcolbert@vcu.edu prior to the pre-proposal conference on June 10, 2014 or ask questions during the pre-proposal conference. All questions asked prior or during the pre-proposal conference plus any additional follow-up questions must be emailed to jcolbert@vcu.edu by no later than the question submission date and time on June 13, 2014 at 4:00 PM EDT. Any changes resulting from the conference and the clarifications to the questions will be issued in a written addendum to the solicitation.



RFP - Addendum

DATE: June 20, 2014

ADDENDUM NO. 02 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303J
Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System
Issue Date: May 23, 2014
Proposal Due: July 2, 2014 at 11:00 AM
Revised Proposal Due Date: July 11, 2014 at 11:00 AM
Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

A handwritten signature in blue ink that reads "Jackie Colbert". The signature is written in a cursive, flowing style.

Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EST) local time on 7/11/2014.

Reference Page 8-61, Section 7 Pre-Proposal Conference: Please add the following information at the end of the Section:

Additional optional site visits to review electrical systems in various parking facilities have been scheduled as follows;

MCV Campus:

Wednesday, June 25, 2014, 9:00 a.m. to 12:00 p.m.

Site visit includes N Deck and D Deck (other facilities may be toured if time allows).

Meet at the Entrance of the N Deck located at 615 North 10th Street, Richmond, VA 23219

Contact: Josh Ambrose (283-5743)

Monroe Park Campus:

Thursday, June 26, 2014, 9:00 a.m. to 12:00 p.m.

Site visit includes W. Broad Street Deck and W. Main Street Deck (other facilities may be toured if time allows).

Meet at the Entrance of the W. Broad Street Deck located at 1111 West Broad Street, Richmond, VA 23220

Contact: Chris Mizell (652-7328)

RFP # 6018303JC Pre-Proposal Conference Questions

1. RFP Deliverables include responses to "Sections 1-3". Is this an error? What items in Section 1 require a response?
Refer to RFP – Project Scope & Content Requirements
2. Will the vendor be responsible for civil work (ie: concrete, power, network, conduit, etc) as part of the project scope? If so, does VCU plan to provide a site tour to provide assessment of current environment?
VCU will provide concrete, electrical and conduit as required in the D Deck and the N Deck.
Data and Voice cable by vendor.
3. Please clarify which handhels to be used for event module and for the citation module? A one piece with an integrated printer or a two-piece with a wireless printer?
Vendor to provide product description and solution within their proposal.
4. Please clarify requirement Section 1.13 - #23 Shall integrate with the Pay on Entry equipment located at barrier gate parking lots and decks.
Refer to RFP. In-lane Event Parking equipment as proposed by vendor.

5. Please explain work flow for valet module today. (Requirement Section 1.13 #2. Includes event and valet parking modules)
Refer to RFP. Valet Module is not included in this project.
6. Please describe the University's requirements for the web based reservation system.
Refer to RFP. Web based reservation system may be used for special events or for all sporting events. A review of the Vendors proposal and reservation system capabilities will be made.
7. Please describe the requirements or a use case for the 24/7 onsite payments for event parking.
Refer to RFP. Event parking in lane payment may occur any time during the day.
8. Please describe how season ticket holders receive their parking passes, if it's one pass or one for each event, and what information about the passes is shared with the parking office including what format and how often.
Season ticket holders are not sold parking passes and are not available to the public.
Currently, VCU Athletics Department and VCU Parking Department, administer who get the event pass by their participation. VCU is open to proposal and system designs to implement a new more efficient method of tracking their use.
9. In the VIP module, please describe and provide an example of what is meant by the Parking Manager having the ability to see the patron's name and communicate with the patron or other parking managers.
Refer to RFP. VIP module or direct real-time communication to all handheld or in-lane devices indicating a VIP who may or may not have a prepaid reservation tickets. Operations will determine the protocol of handling a VIP incident.
10. Please provide more detail about the uses of the CBORD and Blackboard system for parking transactions. What type of transactions should allow for the RAM BUCKS options?
Currently, only used as another option for payment
11. For the Banner financial interfaces for students and employees, is there a return file from Banner which should be imported into the parking system for payment reconciliation?
Currently, a file is downloaded for Citation Payment (LockBox).
12. Does the University also desire an interface to import student and employee data into the parking system from Banner?
Yes

13. Paragraph 1, 11.7 on page 2-6 reads as follows: "All RFID Permits must be guaranteed to perform satisfactorily in the heat and not to break in the cold and withstand the general intended use with daily handling and transferring. All printing and numbering on permits shall be provided with sun resistant inks that will remain in good legible condition for a period of one (2) years after permit has been in use on vehicle." Which is the requirement, one year or two years?
Two Years
14. On page 2.10 one of the requirements for the parking ticket machine is that it include Windows Mobile 6.5 or higher Operating System. Is it permissible to supply a device that provides all required performance but does not use a Microsoft operating system, such as a device using a more secure and Open Source Operating system such as Linux or BSD?
Refer to RFP. Refers to Handheld devices for citation management or event sales. Vendor to propose system and provide technical specification of the units proposed.
15. Section 1.18 on page 2.11 requires that the vendor provide data migration from the existing system to the new system. In what format is the existing system, flat files, application-based data files, or a standard relational database?
Refer to RFP, page 3-15 A. Interface
16. If an application-based data file system, is there a standard means to allow a third-party application to dump the enclosed data?
Refer to RFP, page 3-15 A. Interface
17. If a standard relational database, which one (Access, Oracle, MS SQL Server, other)?
Refer to RFP, page 3-15 A. Interface
18. On page 2-15, section titled "Support and Maintenance Questions" has question 5, which reads as follows: "5) What are your hours of operation for support during Central Standard Time weekdays, weekends and holidays?" As far as I am aware, all Virginia Commonwealth University parking locations referenced in this RFP are within the Commonwealth of Virginia, which is in the Eastern Time Zone. What is the reasoning of a requirement for reference to ~~Central Standard Time~~ as opposed to Eastern Standard Time?
TYPE error, Eastern Time Zone only.
19. The last two sentences of item 2 on page 3-8 read as follows: A voice annunciator shall sound until the parker has removed the ticket from the dispenser. The gate shall open automatically with removal of the ticket from the ticket dispenser and shall remain in the "up" position until the vehicle has passed over and cleared a "closing" loop "C" located just beyond the gate arm. Is the voice annunciator to generate a sound or is it to say something, presumably in English, to take the ticket?
English Only

20. If it is to announce as opposed to generating a buzzer or other sound, is it to simply say a phrase in English or should it support other languages?
Standard Lane equipment Voice annunciation to welcome transient visitors
21. Should the vehicle detector presume vehicles are single entities like two-axle vehicles or should it support vehicles which are towing something, like a trailer?
Standard parking industry vehicle detection products for 2 axle passenger vehicles.
22. Section 3 part 1.33 Page 3-1 Please confirm that VCU Engineering will be providing concrete island, electrical work power and communication conduit and cable as required in parking decks "D" and "N".
Yes. VCU will provide concrete, electrical and conduit as required in the D Deck and the N Deck. Data and Voice cable by vendor.
23. General – Can we receive samples of the media used for access throughout the campus and data elements as they pertain to each type of media (i.e. barcode elements, magnetic stripe elements and RFID elements).
Vendor to provide with their proposed system.
24. Section 3 part 1.41 page 3-20 As long as a manufacturer of an RFID antenna meets ISO 18000-6C and EPC Class 1, Gen 2 standards they are approved to use on this project?
Vendor to provide with their proposed system.
25. The existing equipment will be removed and returned to owner. Will the owner pick up the old equipment at the existing location?
YES
26. Will there be a location to mobilize equipment in parking garages?
YES
27. Is there a project schedule? Please provide.
Vendor to provide with their proposed system.
28. What are the working hours in the garages?
Varies by location, in general 6:00am ~ 10:00pm
29. Will vendors have parking access?
YES

30. Can work be performed in multiple locations at one time?
YES
31. Page 3-6, Section 1.35, 3: Since the VCU ID Card has a 26-bit proximity ID code, magstripe data, and an intelligent barcode, does it matter which of these media formats we use for processing transactions?
NO - all linked to the same cardholder's account
32. Page 3-11, Section 1.35, 16: What is meant by "communicate with the patron"? Do they have special access rights?
Refer to RFP - entire section F. Refers to Handheld device within the lane to visually display a VIP listing of names for the attendant to communicate with the VIP parker verbally and providing customer service support.
33. Page 3-15, Section 1.39: Can VCU provide more detail about the types of data that need to be exchanged with VCU's existing Banner System, CBORD, and Blackboard systems?
Banner Data exchange would include name and address information for subscribers and financial transaction to report revenue and for student subscribers enrollment information is also used. CBORD is used for financial data to make payment using RamBucks.
Blackboard is not currently used in current Parking system. But, it is used for the Transportation App for Transit Locator.
34. Can VCU provide more details about the CBORD system currently in use and define the specific interface requirements for this system?
Please see the response to question 33 above.
35. What is the current permit management system? Is it a vendor- or campus-developed system?
Current Vendor: Cardinal Tracking
36. What is the database used with the current system?
Database for the Parking system is on SQL 2008 r2
Database for Gate System - ScanNet is Sybase SQL 6.0
37. Is there any data export or integration capability with the current system?
A SQL script is setup to activate Subscriber VCUCards for Add only

Manual Visual Basic Modules are developed to import and export data for DMV. Manual Visual Basic Modules have been developed to import batch permits, import financial transactions for citations. Manual Visual Basic Modules have been developed to import citations from handhelds.

38. Will VCU accept permit-less license plate-based permit and enforcement system?
NO
39. Page 3-26: What are your expectations on the Frequent Parker Card? Does it decrement a pre-paid card or is it a system that provides parking rewards after so many uses? If it provides awards who manages the reward program?
To be determined at a later date by VCU based upon proposed system capabilities.
40. Would VCU allow a "6B" RFID Reader to be used instead of a "Gen 2 6C reader?"
Vendor to provide system to meet application specifications
41. Should all PARC Hardware be UL Compliant?
Refer to RFP
42. Will student or staff transient parkers receive a different fee than normal staff/students?
To be determined by VCU Operations at a later date
43. Will Bar Code ticket dispenser be acceptable?
Vendor to provide a solution to meet the applications defined within the RFP.
44. Pg 3-1 – Confirm that VCU shall provide concrete and site work for D and N Decks but that Contractor is responsible for all site work at other garages?
Yes. VCU will provide concrete, electrical and conduit as required in the D Deck and the N Deck. Data and Voice cable by vendor.
45. Please confirm that each Public entrance and exit lane for Permit Parkers shall be equipped with a Mag Stripe Reader. Page 3-5 Proposed Permit Only Facilities- Equipment Listing includes RFID Antenna and Prox/Bar Code Readers but not Mag Stripe Readers, however graphs on page 3-52-3-58 do include Mag Readers. Please clarify.
The Permit Only lanes do not require mag stripe as a credential to gain access. However, RFID, BarCode and intercom is required. Visitor parking lanes require mag stripe for the option of "credit Card In/ Credit Out operations if chosen by the University.

46. Does VCU require a certain size for the Full Sign?
Vendor to provide size and specification recommendations to each lane application within their proposal.
47. Define data collisions and data crossover – pg 3-6 #4
Refer to RFP. Interference from RFID equipment data device to systems controller and systems software management will not be accepted.
48. Please provide Specs / description of the enclosure? Size? Material? Color?
?
49. Who will be responsible for installing RFID Tags?
Each Parker will install their RFID Tag. With each tag will be a complete installation description.
50. Would VCU prefer a Swipe or Optical Bar Code Reader?
Refer to RFP. Vendor to provide within their proposal.
51. Would VCU like Contractor to include any lane signage in Exit lane such as “Credit Card Only” or “Express Payment Lane?”
Vendor to provide within their proposal any recommendation they deem of value to VCU.
52. For Warranty Commencement, Would the University consider it being done by system acceptance at an individual garage as opposed to the entire system?
Refer to RFP for Warranty Commencement procedures.
53. Define 15 minute response – one site, by return phone call, by email?
Refer to RFP. Vendor to provide within their proposal any recommendation they deem of value to VCU.
54. Same question #6 – 1 hour response
Refer to RFP. Vendor to provide within their proposal any recommendation they deem of value to VCU.
55. If phone call, then when does person need to be on site?
Refer to RFP. Vendor to provide within their proposal any recommendation they deem of value to VCU.

56. Please confirm (pg 3-14) expectation that contractor shall provide "on site" dedicated technician for VCU system
Refer to RFP. Vendor to provide within their proposal any recommendation they deem of value to VCU.
57. Pg 3 -15 – Define "certified" interface
Refer to RFP 3-16 #7. Certified and experienced with Banner, CBORD and Blackboard as required from those companies prior to any work to commence within the systems.
58. Pg 3 -22 – Mag Strip Reader – for tickets or credit card? When VCU card used, it is a debit card?
Refer to RFP. The VCU card may be used as payment in the transient system or as access control to all programmed locations.
59. Pg 3 -30 #17 – VCU Card – What is Mode 2?
Refer to RFP – Exit Station 3-29. VCU card may be used to pay with credit card or VCU (RAMBUCKS) card for a transient ticket at the exit lane.
60. Pg 3 -38 – PARC Central Computer and Software - #1 – will these two office in these two decks be considered the "Central Command Post"
Refer to RFP 3-38 M,
61. Would VCU consider using License Plate as primary or secondary permit?
NO
62. Pg 3 -41 – Can loops be dry cut?
To be Field determined by VCU staff prior to installation.
63. Pg 3 – 41 – Will contractor install "Command Desk Module" in every garage parking office?
Refer to RFP 3-41 Q (1)
64. Besides restrictions listed on page 3 -45 #45/3/a,b – Are there any other restrictions on when install action may occur?
Vendor will submit site specific installation schedule upon award of contract.
65. Broad and Belvidere deck has two high speed coiling doors – Confirm these will be replaced by barrier gates and that contractor should remove the overhead doors

VCU would like to keep the Overhead Coil Grill working during off peak hours. Provide barrier gates to operate during the day. Concrete and electrical will be provided by VCU. Data and intercom cables to be provided by Vendor.

66. Where will the standalone Pay Stations be located?

The suggested POF location Map is attached. To be field determined with Vendor.

67. Many of the garages have overhead doors. Will PARC need to tie into the overhead doors?

YES

68. Will D-deck have overhead doors? Where will these be located? Interface required?

NO

69. Will N-deck have overhead doors? Where will these be located? Interface required?

NO

70. Will any door readers for offices be a part of this RFP in the future?

NO

71. Will the existing system need to be running alongside the new system during implementation

YES. Maintain revenue and access control functions as required.

72. Can high voltage wiring that is currently being used by the PARCS system be reused?

YES

73. How can we coordinate a site visit that includes looking at all panel boxes

Schedule Site Visit through VCU Purchasing Office

74. Will any lanes at Transient decks be configured as "reversible" lanes?

Refer to RFP and view each location to determine lane design and equipment needed.

75. Page 3-26 mentions Frequent Parker Card, please define what features you require for that program.

VCU may utilize a Frequent Parker Program. Vendor to provide system description and pricing for evaluation.

Equipment ADD:

- A. Please provide pricing to ADD (1) additional Automatic Cashier Station (POF) to be located at the West Main Street Deck as identified on the attached site floor plan. Include equipment and all installation costs within.

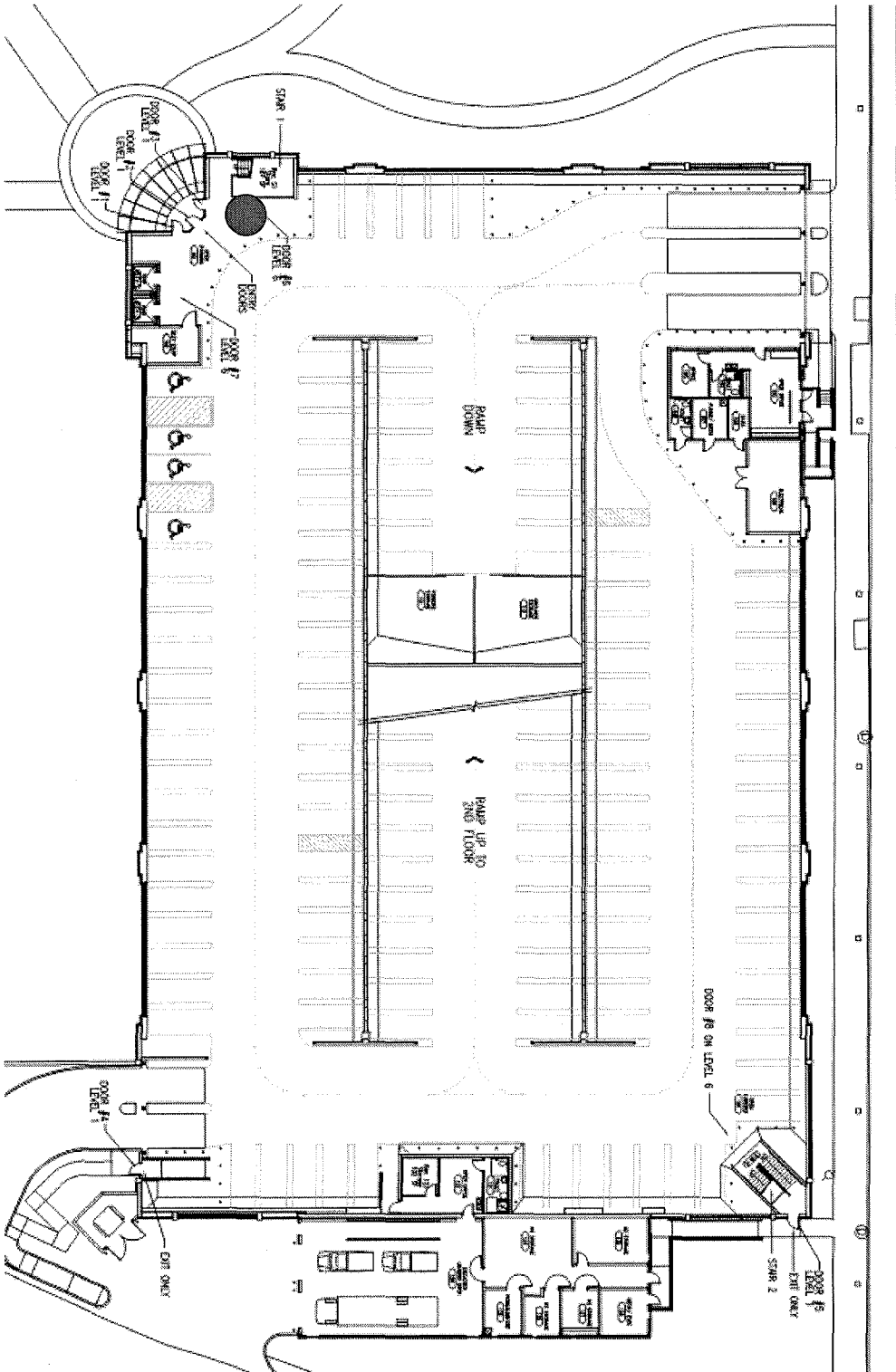
ATTACHMENTS

Floor plan of each parking deck that will require Automatic Cashier Stations (POF) and their desired location to price out the electrical and network cabling

Pre-Proposal Conference Register

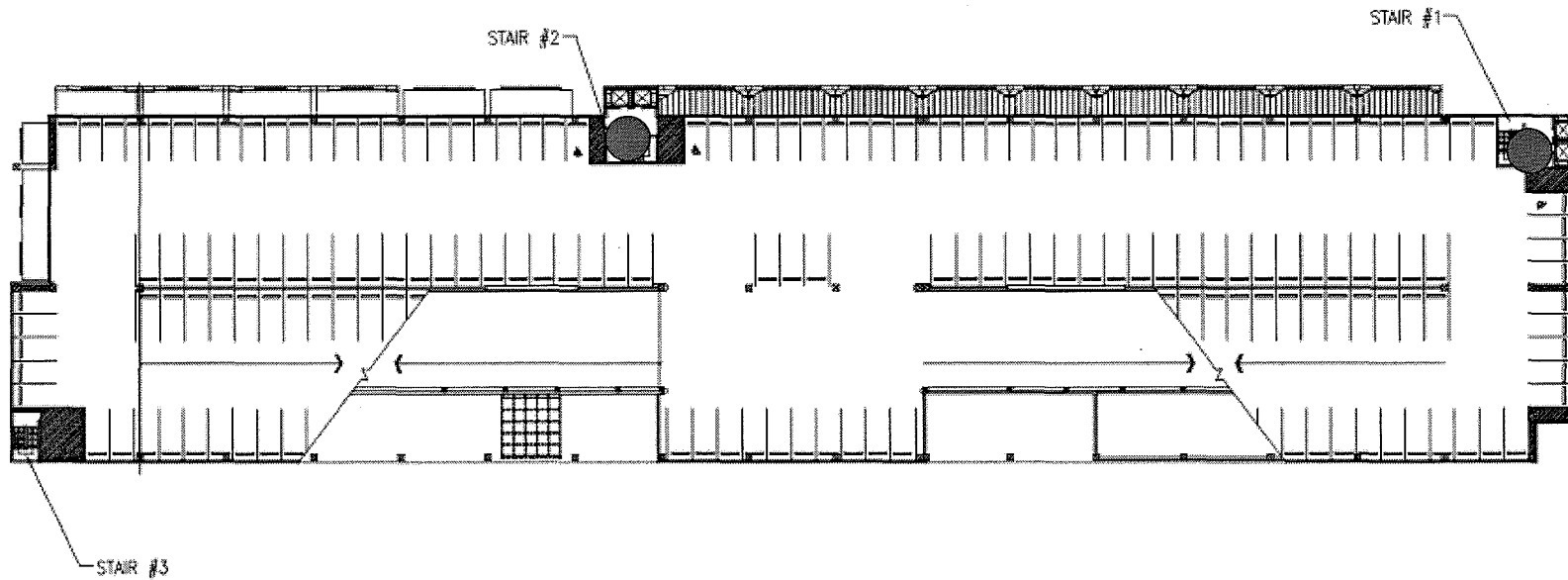
8th Street Deck

1 pay-station ● Level one near elevator



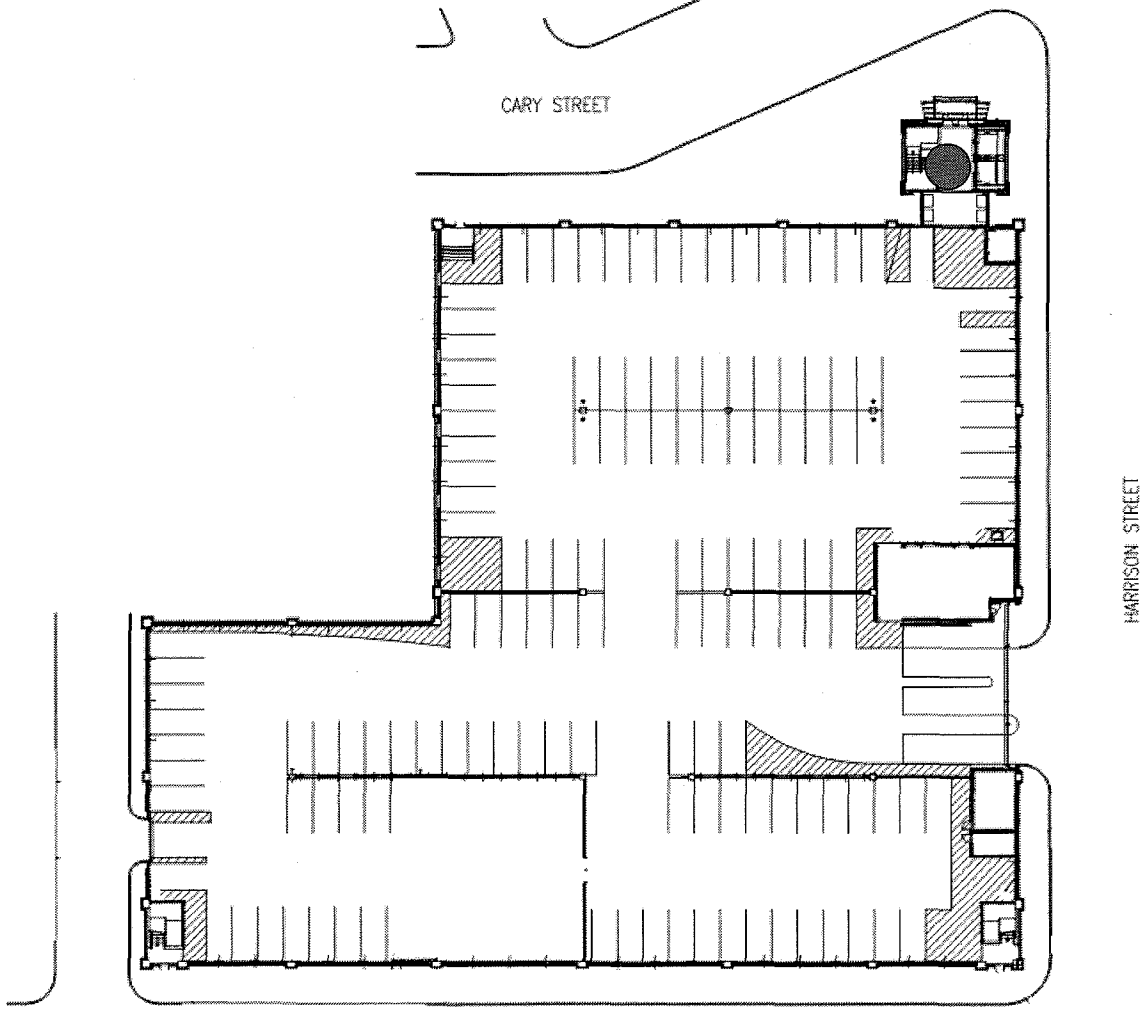
West Broad Street Deck

2 pay-stations ● both level one at elevator lobbies



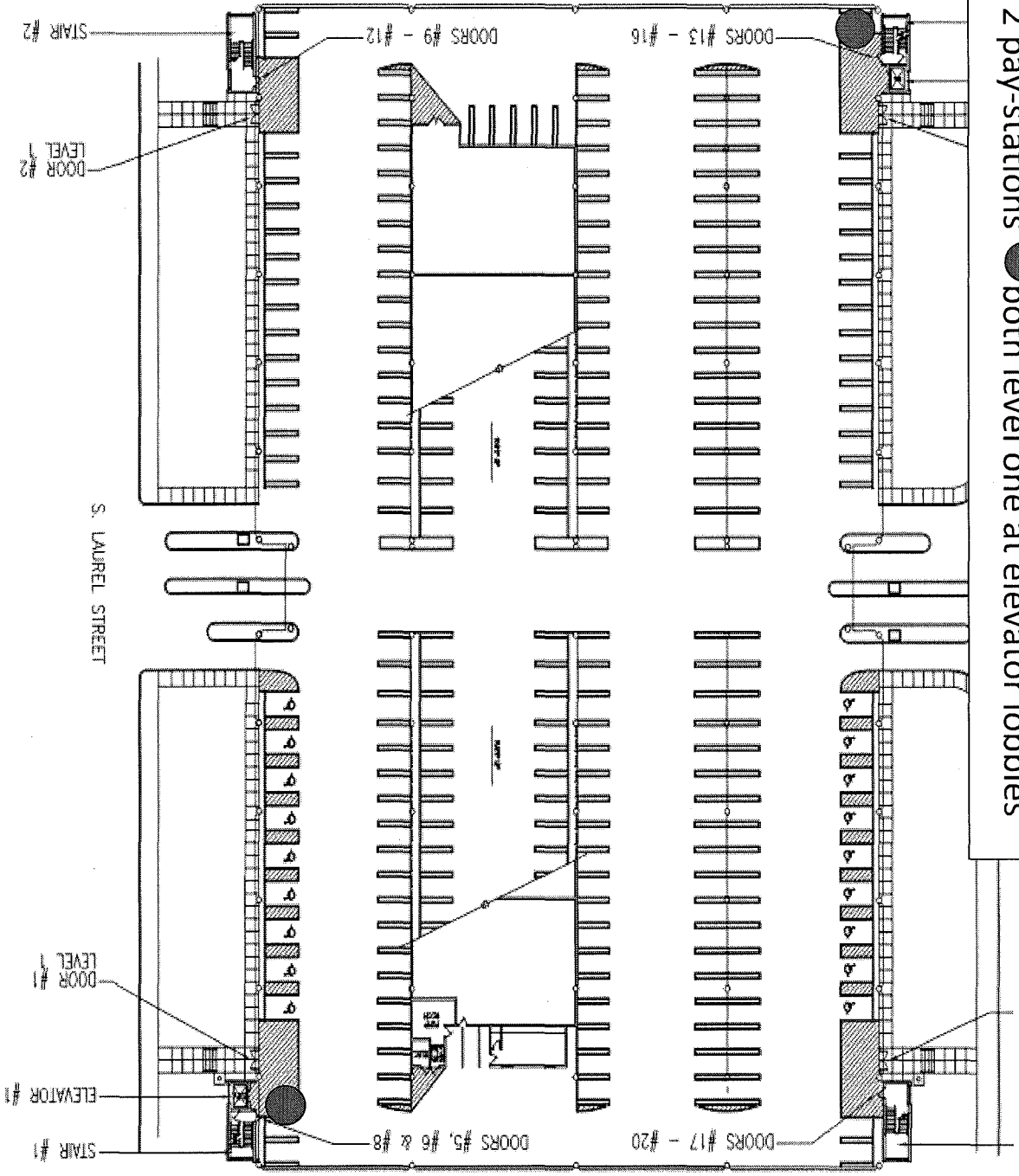
West Cary Street Deck

1 pay-station ● level one at elevator lobby



West Main Street Deck

2 pay-stations ● both level one at elevator lobbies



VIRGINIA COMMONWEALTH UNIVERSITY
Department of Procurement and Payment
University Purchasing

CONFERENCE REGISTER

RFP NUMBER: 6018303JC TITLE: Permit and citation Management/Parking Access & Revenue Control System

RFP OPENING DATE AND TIME: July 2, 2014 at 11:00 AM

DATE-TIME PRE-PROPOSAL CONFERENCE: June 10, 2014 at 9:00 AM
() Mandatory (X) Optional

OFFICIATED BY: Jackie Colbert, C.P.M.

(1) Mark Walker
Signature

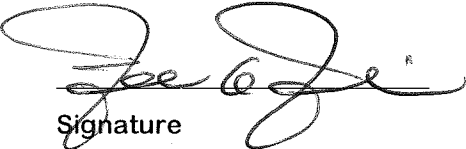
Name Printed: MARK WALKER
Name of Firm: 3M
Address: 455 General John Payer Blvd
City & State: Georgetown KY 40324
Phone No.: 502 316 4583
Fax No.: _____
E-mail Address: mbwalker@mmm.com
 Minority-owned Woman Owned

(2) Frank Kollmansperger
Signature

Name Printed: Frank Kollmansperger
Name of Firm: dba Entry Guard Systems / K&C Shell Corporation
Address: 465 South Lake Blvd. Sixty
City & State: Richmond, VA 23236
Phone No.: 804 423-6523
Fax No.: 804 423-6526
E-mail Address: frankeentryguardsystems.com
 Minority-owned Woman Owned

(3) James E Fedor
Signature

Name Printed: James E Fedor
Name of Firm: T2 Systems Inc.
Address: 8900 Keystone Parkway ste 700
City & State: Indianapolis IN 42640
Phone No.: 317.524.2145
Fax No.: _____
E-mail Address: james.fedor@t2systems.com
 Minority-owned Woman Owned

(4) 
Signature

Name Printed: FRANK FIENE
Name of Firm: HUB BANKING Technology
Address: 555 Keystone Dr.
City & State: WARRENDALE, PA. 15086
Phone No.: 410 507 7780
Fax No.: 724 772 3664
E-mail Address: FRANK.FIENE@CTAParking.COM
 Minority-owned Woman Owned

(5) _____
Signature

Name Printed: _____
Name of Firm: _____
Address: _____
City & State: _____
Phone No.: _____
Fax No.: _____
E-mail Address: _____
 Minority-owned Woman Owned

(6) _____
Signature

Name Printed: _____
Name of Firm: _____
Address: _____
City & State: _____
Phone No.: _____
Fax No.: _____
E-mail Address: _____
 Minority-owned Woman Owned

(7) _____
Signature

Name Printed: _____
Name of Firm: _____
Address: _____
City & State: _____
Phone No.: _____
Fax No.: _____
E-mail Address: _____
 Minority-owned Woman Owned



RFP - Addendum

DATE: July 3, 2014

ADDENDUM NO. 03 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: July 11, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Additional Questions and Clarifications for the Permit and Citation Management/Parking Access & Revenue Control System

RFP # 6018303JC Questions

1. Is there a University Connectivity Structure to connect all parking locations listed in the RFP #6018303JC?

Refer to RFP . . . Section 3, Page 3-2 Contractor Requirement

2. In Section 1 page 1.1 the RFP states “VCU reserves the right to only purchase certain systems and not the entire Permit or PARC system from any contractor or to enter into multiple contracts to obtain the desired results.” Can the Proposer submit a proposal that only addresses the PARCS and Event Systems without addressing the entire Permit Citation Management System?

Contractor may submit proposal for relevant work that meets the RFP requirements. Provide complete description of Work offered and any and all system components requested by this RFP that is not included in the Contractors proposal.

3. In Section 1.11 (RFID Permit Encoding & Supply) Can Transcore be used as an acceptable manufacturer of the RFID/Antenna if it is compatible to the suggested manufacturers and ISO 18000-6C and EPC Class 1, Gen 2 standards.

Refer to RFP 1.11 - RFID system requirements. Vendor to provide a solution to meet the applications defined within the RFP. It is the Contractors responsibility to provide technical specification and samples to meet the RFID system intent.

4. What type of conduit is required for the POF locations and for other devices that may need 120v power and data connection, PVC, EMT or GRC? The decks use a mixture of these conduit types but answer to this questions will drive cost of requires site work

Refer to all local and national Electrical Code requirements. Provide material description for each required location within your proposal.

5. Can we tap off nearby existing outlets for 120v AC power where some of the POF's will be located?

Refer to all local and national Electrical Code requirements. Provide circuit panel location and description along with circuit operating capability within your proposal. VCU Engineering to approve all electrical panel connections prior to use.

6. Will there still be a need for an exterior reader (outside of the OH door) at Jefferson Deck?

YES

7. The Main St Deck does not appear to have a fiber backbone. Will VCU provide this for the project?

YES

8. Addendum 2 included an Equipment ADD to provide pricing to add (1) additional POF to be located at the West Main Street Deck. The RFP Pricing Matrix on page 3-58 includes Two Automated Payment Stations. The West Main Street Drawing included with Addendum 2 Shows Two Pay Stations. Should we include two or three POFs in RFP response for the West Main Street Deck?

Provide (1) additional POF unit pricing only for VCU to determine if a 3rd POF at this location may be required based upon parker type. Location will be determined at a later date by VCU.

9. Please provide integration details for the RAM BUCKS card. Can you provide the API's?

Please see Attachment 1.

10. Please provide integration details of the VCU card.

Please see Attachment 2.

ATTACHMENTS

Attachment 1

Attachment 2

Attachment 3 – Electrical Drawings for the Parking Decks Please access the Electrical Drawings at:

<https://drive.google.com/a/vcu.edu/folderview?id=0B9e586QK15F5MEtheKnrOW94U2c&usp=sharing>



For additional information, contact:
Irena Goloschokin, T2 Systems, Inc.
(317) 524-5500
igoloschokin@T2systems.com
www.T2systems.com

T2 SYSTEMS ANNOUNCES INTEGRATION WITH CBORD CAMPUS CARD SYSTEMS FOR PARKING PAYMENTS

Indianapolis, Indiana – May 21, 2013 – T2 Systems, Inc., a technology-focused provider of parking systems, announced today a real-time integration with CBORD's Odyssey PCS™, CS Gold®, and OdysseyOne™ campus ID card systems to enable quick and secure payment for parking through the T2 Flex™ unified parking management platform.

T2 unifies parking management functions like permit management, parking enforcement, access and revenue control, and event parking with the T2 Flex platform. With T2 Flex, colleges and universities are able to realize efficiency gains and better understand their parking operations with comprehensive data and one system for all parking management. CBORD® provides integrated solutions that bring together various campus services like access control, security, online account management, meal plans, and stored value for payments on and off campus into one intuitive ID card application.

"This integration makes a real difference for our higher education customers," said Irena Goloschokin, T2 Executive Vice President of Strategy and Products. "Colleges and universities can offer a great convenience to their students, faculty and staff by giving them the ability to pay for parking with their campus ID cards."

"T2's integration with CBORD's leading campus card solutions extends the value of both University parking management and our systems by letting students pay for parking with the same credential they use for access, purchasing, and privileges in all areas of campus, every day," said Chris Haley, CBORD's Vice President of Product Development.

About T2 Systems

Started in 1994, T2 Systems is a technology-focused parking system provider with deep roots in the evolving parking industry. This commitment is evident in T2's quality products and services, thought leadership and strong customer relationships. With its proven, unified solutions, T2 Systems is trusted by close to 400 organizations in the U.S. and Canada, including universities, cities, towns, hospitals and parking operators. T2 Systems is headquartered in Indianapolis, Indiana and has virtual offices throughout the United States and Canada. For additional information about T2 Systems, Inc. products and services, visit www.T2systems.com.

Virginia Commonwealth University				
Card Track Data Encoding Specifications			Facility Code = 964	
Encoding Layout			Technology	
Track 1:			13.56 mHz frequency for iClass - HID Corporate 1000 (iClass 188,026	
			125 kHz frequency for Proximity - HID Corporate 1000 (Prox 65,000 ar	
Description	Position	Value/Format		
Start Sentinel	1-2	%B (percent sign + 'B')		
Card Number (1-16)	3-18		Card Size:	CR-80 (Credit Card Size)
Card BIN (ISO) (1-6)	3-8	505450	Length:	3.375" + 000." - 0.10"
Card Sequence (7-13)	9-15	Next available number selected sequentially beginning with 1177600.	Height:	2.125" +/- .002"
Generation Nbr (14-15)	16-17	01	Thickness:	Proximity Cardstock .032" + / .003"
Mod 10 checkdigit (16)	18	Calculated checkdigit for first 15 digits of card number		Litho printed DuoProx II, HID Part #1336
Delimiter	19	^ (carat)		Graphics Quality, Vinyl
Name	20-30	CAMPUS CARD	Magnetic Stripe:	Magnetic Stripe Hi/Co 3 Track
Delimiter	31	^ (carat)	Composition:	HT Formulation (Composite)
Expiration Year	32-33	01	Coercivity:	2750 Oersteds
Expiration Month	34-35	01		
ATM Service Code	36-38	120		
ATM constant	39	4		
Reserved	40-43	0000	Barcode = Last 10 digits of VCUCard Number	
Encrypted PIN	44-47	0000		
Not used	48-51	Spaces		
Zeros	52-53	00		
CVV (N/A)	54-56	000		
Not used	57-62	000000		
End Sentinel	63	? (question mark)		
Track 2:				
Description	Position	Value/Format		
Start Sentinel	1	; (semi-colon)		
Card Number (1-16)	2-17			
Card BIN (ISO) (1-6)	2-7	505450		
Card Sequence (7-13)	8-14	Same card sequence number encoded on Track 1		
Generation Nbr (14-15)	15-16	01		
Mod 10 checkdigit (16)	17	Same checkdigit encoded on Track 1		
Delimiter	18	= (equal sign)		
Expiration Year	19-20	01		
Expiration Month	21-22	01		
ATM Service Code	23-25	120		
ATM constant	26	4		
Reserved	27-30	0000		
Encrypted PIN	31-34	0000		
CVV (N/A)	35-37	000		
Not used	38	0		
End Sentinel	39	? (question mark)		



RFP - Addendum

DATE: July 8, 2014

ADDENDUM NO. 04 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC
Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System
Issue Date: May 23, 2014
Proposal Due: July 2, 2014 at 11:00 AM
Revised Proposal Due Date: July 23, 2014 at 11:00 AM
Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EDT) local time on 7/23/2014.



RFP - Addendum

DATE: July 22, 2014

ADDENDUM NO. 05 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC
Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System
Issue Date: May 23, 2014
Proposal Due: July 2, 2014 at 11:00 AM
Revised Proposal Due Date: July 30, 2014 at 11:00 AM
Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert, C.P.M.

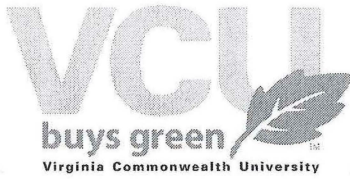
Name of Firm

Signature/Title

Date

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EDT) local time on 7/30/2014.



RFP - Addendum

DATE: July 25, 2014

ADDENDUM NO. 06 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC
Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System
Issue Date: May 23, 2014
Proposal Due: July 2, 2014 at 11:00 AM
Revised Proposal Due Date: August 6, 2014 at 11:00 AM
Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EDT) local time on 08/06/2014.

PROPOSAL

Prepared for

**Virginia
Commonwealth
University**

**Permit and Citation Management /
PARCS System**

Bid No. 48923

July 23, 2014



Think Technology. Think Solutions. **Think T2.**



July 23, 2014

Jacqueline Colbert
Virginia Commonwealth University
10 South 6th Street, Suite 200
P.O. Box 980327
Richmond, VA 23298-0327

Dear Ms. Colbert and Evaluation Committee,

T2 is grateful for the opportunity to provide our proposal for a Parking Management solution in response to your RFP documentation. The project will be challenging and we are pleased to be considered.

The process you have in front of you is daunting. On a simplistic level, you are choosing a supplier for a parking management system: one that can offer a collection of hardware and software intended to help you address parking situations at your campus.

On a more important strategic level, you are choosing a long term business partner; one whom the University will rely on for the coming decade to provide operational insight, technological guidance, and solution design assistance.

In that light, please consider the following:

- In almost every case, the solutions you are reviewing from other respondents are virtually the same solution they offer in every other RFP. Though perhaps not intended, it's truly viewed as a 'one size fits all' scenario.

The T2 Flex product is not a typical, one dimensional parking product. Rather, it is a suite of flexible control and management modules that provides a virtually unlimited capability to address parking management situations.

- In the selection of a strategic partner for this project, is it more appropriate to select a parking 'general practitioner', a company perhaps with reasonable general parking knowledge? Or would it be more appropriate to select a 'specialist'; a company recognized and heralded for its effective innovation and customer support in the campus industry parking realm. There are no other providers that come close to the pedigree and experience level of T2 in the development and deployment of engineered solutions for the campus business model.
- The solution described herein will be engineered, professionally managed, tested, configured, installed, and subsequently supported by T2 staff members: not through a distribution agent. All communication and management tasks would be through T2.

- The solution we are proposing to the University is based on a Design-Build process. Using this process, our staff, working in collaboration with the University's operational, technical, and audit staff, designs a solution that is crafted to meet the needs of the system's primary stakeholders. The result is an effective, mutually agreed upon, business targeted solution.
- In our analysis of the project, we have determined a number of items the University may want to consider that provide value; both in the short term and the long term. Please review Value Engineering section in the proposal, located within the T2 Financial Proposal
- T2 has partnered with two (2) firms to collaborate on this project: E Squared Consulting Corporation, a Virginia certified DBE/MBE firm and Clinton Electric, an electrical firm T2 has used to provide any associated electrical work required for this project. Both firms are experienced in the industry and provide overall project value.

We are very confident that the T2 solution described herein will exceed your expectations described in the RFP document. The team assembled to prosecute the associated work is steeped in industry experience, and we commit to providing factory-direct support both during and after the installation.

We wish you much success with the evaluation process underway. We appreciate the complexities associated with this process and the varied information you will consider. We are optimistic the solution proposed by T2 merits serious consideration.

Should you have any questions or comments with regard to our offer, please contact us at your convenience.

Respectfully,

Tom Wunk
Vice President of PARCS Solution
T2 Systems, Inc.
TWunk@t2systems.com



Table of Contents

Section 1	Executive Summary
Section 2	Required Forms
Section 3	Technical Response – Permit & Citation Management
Section 4	Technical Response – PARCS
Section 5	Financial Summary
Section 6	Appendix



Section 1. Executive Summary

EXECUTIVE SUMMARY

T2 Systems has conducted a thorough review of Virginia Commonwealth University's RFP# 6018303JC for a Permit and Citation Management/Parking Access & Revenue Control System. This includes review of the RFP documents, associated addendums, and conducting several site visits. The result of those efforts is an engineered T2 Flex solution designed to allow the University to embrace technology and exceed the operational intentions outlined.

VCU Solution Objectives

Virginia Commonwealth University intends to implement a Campus Parking Management System enabling the University to:

- Improve customer service
- Reducing system downtime and repair costs
- Reduce overall cost of ownership
- Increase revenue production
- Implement RFID technology
- Reduce transactional queueing time for all parkers
- Reduce staff demands through the implementation of automation
- Improve administration and operations process through enhanced reporting
- Provide the ability to accept multiple credentials for access control and payment options
- Expand available 'parking products' for students, faculty/staff, and visitors
- Streamline the online purchase of the parking permit and delivery functions, citation issuance, and revenue capture

In summary, VCU desires a comprehensive and unified parking solution; reliable, effective, flexible, sustainable, expandable, and cost effective that will enable the University to manage their parking operation today and for many years to follow.

T2 Proposed Solution

T2 is proposing the implementation of a T2 Flex unified parking management solution: a single system capable of providing control to all aspects of your parking operation – permits, citations, parking access & revenue control, and event parking, and providing centralized administration, reporting, and process operation from one central management portal.

The key advantages of implementing a unified system for management of all parking operations:

- One common interface delivers all information via a browser

- Parking regulations and business rules are consistently implemented across the entire parking eco-system.
- Customizable reports and dashboards aggregate data across the entire parking operation, while still providing the ability to drill down to specific information, delivering data visualization and turning operational data into actionable items.
- Consolidation of permit management, event management, and PARCS would not require a special interface between disparate systems should a non-enterprise be chosen.
- All customer data is in one place regardless of which part of the system the customer interacts with.
- All parking data is in one place for operational decision making, financial management and trend analysis.
- All components of the system are upgraded in unison at the same time by the same firm.
- Staff training is more effective as operations reside on the same system
- 100% of parking revenue can be managed in one system

T2 Flex will contain all administrative, operational, and transactional data in one common platform and thus become the authoritative data source for everything related to parking. The result is a unified management environment that streamlines and homogenizes all parking management and operational subsets including permits, citations, contract and visitor transactions, parking revenue collection and reporting, credit card processing, data analysis, parking signage, occupancy management, special events, validations, systems alarms, and exception transactions. By consolidating all the relevant parking control scenarios under one master system, VCU will realize an entirely new level of control and data collection.

In addition to the collection of consolidated parking data, the T2 Flex solution will provide you with powerful tools to help you correlate and analyze this data. This can be particularly important when making critical short and long-term campus-wide strategic transportation business decisions.

T2 Permit and Citation Management System

T2 Flex will serve as the foundation of your Permit and Citation Management system. T2 Flex is a user-friendly, browser based system built on an open architecture platform. It includes a powerful custom e-Commerce solution to better serve your parking patrons.

T2 Flex for Permit and Citation Management provides:

- Control of who is parking in your facilities, and when and where they can park
- The ability to configure setup, issuance, tracking and management of parking permits; no matter how easy or complex your business rules are
- Ability to actively manage permit and citation data in real time in the office and in the field

- Ability to integrate with third party applications such as Banner and CBORD, as well as parking meters, pay-by-phone, LPR, etc.
- Streamlined online purchase of parking permits and online payment of parking citations
- Improved audits, statistics and financial reporting
- T2 PCI DSS Level 1 compliant private cloud hosted environment
- Easy to use context-sensitive menus, at-a-glance content (content manager and color/shape icons), task scheduler, and wizards

The engineered solution will also incorporate

- Motorola MC75A Handheld Ticket Writers
- Banner – CBORD Interfaces
- RFID Permits
- PermitDirect Permit Fulfillment Service

The University's RFP contains various technical and functional requirements that are addressed in Sections 1, 2 and 3 of our proposal.

T2 Parking Access & Revenue Control System

T2 Flex Parking Access and Revenue Control solution proposed herein will support the parking management initiatives at VCU. T2's comprehensive offering incorporates powerful hardware is specifically designed to allow seamless operation within the T2 Flex Unified environment.

The PARCS solution will enable VCU to offer multiple access control credentials and forms of payment including RAMBUCKS card, integrate a real-time Event Parking Reservation system for visitors attending University, support the University's PCI compliance, and will not require an interface to the permit database as all permit data for both gated and ungated facilities will reside in one database.

The complete PARCS solution will incorporate

- Multiple credential capability for 'contract' parkers
- Comprehensive validation capabilities
- Exception transaction reporting and management
- AVI (RFID) functionality
- On-line Event Parking Reservation system
- TCP – IP addressable equipment
- Modular design for effective and quick field servicing
- Embedded VOIP intercom devices
- On-line diagnostics

- Pay in lane capability for credit card processing
- Prepped for EMV functionality
- On-line and off-line capable

If chosen for this project, T2 will work with the University in a collaborative effort, to understand the department's philosophies and policies on items such as facilities management, web-based permitting, citation issuance enforcement, and event parking. We will review each location in detail, consider the operational demands, and 'Design' a solution that is practical, effective, and sustainable. This is not meant to subvert the RFP process, as our response follows the indicated requirements set forth by the VCU. However, once you choose a solution provider consider using the implementation of a new Permit and Citation Management and PARCS solution as an opportunity to implement a holistic solution comprised of both vibrant technology and sound application and design criteria.

T2's PCI DSS Level 1 compliant private cloud

The majority of T2 customers choose to have their parking management system hosted in T2 private cloud. This allows our client's technical teams to focus on other projects instead of spending time and resources on system set-up, maintenance, and PCI Compliance. When T2 hosts an application, clients experience faster deployment as T2 is responsible for all server equipment, database maintenance and backups, scheduled virus scans, and all system administration and maintenance. In addition, upgrades to the latest version of T2 Flex are automatic. T2 staff manages all upgrades, thus eliminating the costs associated with an employee or IT resource that would spend several hours downloading and upgrading the software in your environment. From a volume perspective, in the last 12 months the T2 hosting environment processed over 15,000,000+ transactions and over \$738,000,000 in customer revenue.

Continuous Improvement

Included in the designed solution for the University, the system will continue to be enhanced with all releases, adding new features and capabilities to deploy new evolving technologies. T2 provides on average one to two major releases per year and a number of minor releases as part of your subscription at no additional cost. If chosen, the system would be hosted in the T2 hosting environment the University will experience all the latest Flex software and embedded modules.

T2 product management maintains a 12-18 month roadmap of features and solutions. We continuously monitor the market, discuss our client's evolving operational needs, monitor and review external compliance requirements (including PCI and EMV), and proactively plan our developments accordingly. For example, several of our future-focused roadmap initiatives include development of a parking enterprise data warehouse and integrating parking systems with bigger mobility solutions. This level of continuous yet practical and relevant development allows the T2

client base to experience functional and administrative growth without costly system wide obsolescent concerns.

T2 Implementation

There are many instances in which seemingly viable solutions were selected only to be poorly implemented resulting operational dissatisfaction, constant service issues, and less than anticipated system life cycle. T2 very much understands this potential exposure and as such developed a process which insures transparency, collaboration, testing and confirmation; ultimately resulting in a project that exceeds expectations.

The first step to implementing a designed solution is the identification of a T2 Project Manager, This person will ultimately be responsible to manage and deliver the overall 'project' to the University: inclusive of all the management modules described herein. The T2 PM will prosecute the work based on the following seven distinct project elements:

- System Design
- Pre-Installation Testing
- Implementation
- Interim Testing
- Training
- Final System Testing
- Factory – Direct Warranty Service Support

System Design

While the University's RFP provides a detailed outline of the system components and features required, T2 will incorporate a Design-Build process in the final crafting of the solution. This type of process creates a collaborative environment in which the University is actively engaged in the ultimate design of the system. Working together, the operational and technical staff of VCU and the systems staff of T2 will develop a System Design Document (SDD) that will illustrate all the functionality and site-specific components to be included in the delivered solution. The results of this are four-fold:

- The University can be very specific as to the individual needs of all primary stakeholders for each facility to be addressed in the project. This granular level of discussion and analysis can be difficult to fully detail in an RFP document.
- The University staff, working with T2, will gain a very deep level of system functionality: often resulting in more effective management techniques and processes not considered previously.

- A clear and concise understanding of the agreed-upon deliverable. This process will provide both parties a deep understanding of the entire project, negating mid and late term disagreements that tend to sour an implementation.
- The development of a project specific System Design by its nature, creates the default foundational testing criteria. All parties have the same expectation as to performance and therefore, confirmation of said performance become empirical and not subjective.

During this process, T2 product specialists will conduct meetings with the University to gain an understanding of how current business practices and how they would relate to each T2 Solution module. This process includes a full review of existing and planned policies and procedures, software application processes, and operational tasks addressed by the staff. T2 then correlated the information gathered to craft a Best Practices guideline to be discussed and evaluated by the University. Once approved, those agreed upon practices become the foundation of the System Design document

A significant item included in the System Design process is the site-engineering component. This includes the design work required for the associated construction work that is required to insure the solution is implemented in optimum conditions. Often improvements can be made to increase throughput, reduce congestion, reduce lane equipment damage, increase customer ease of operation, and greatly improve overall system operation and efficiency. These re-design efforts are included within our proposal.

Pre-Installation Testing

Once the System Design is completed, manufacture of the equipment will take place. Once the equipment is delivered to the T2 headquarters in Indianapolis, T2 will set up a representation of each type of control lane, handheld unit, and any other device to be included in the system. T2 will then configure the system as indicated in the System Design Document. When this is done, a team from the University will come to Indianapolis to participate in a Factory Acceptance Test. The VCU team should consist of operational and administrative staff. The test will consist of processing all the types of transactions anticipated for each lane / device type, each permit issuance scenario, each citation scenario, and each process indicated in the System Design Document. Each transaction is monitored, all relevant information collected, and results examined. These results are matched to the expected system performance indicated in the System Design Document. In addition, the transactions processed and their results are used to proof the reporting module to confirm accuracy and content. Only after the system has passed the Factory Acceptance Test is the equipment packaged and delivered to the site for deployment. The results of this are the following:

- The University and T2 can confirm functionality prior to implementation.
- The University staff will gain a level of confidence and system understanding prior to actual implementation.
- The T2 engineering staff is immediately available. Should there be a failure or an adjustment to a specific function, the appropriate T2 technical staff is can promptly address the situation.

Implementation

T2 is providing a turnkey solution to the University. T2 assumes all project management responsibility for the implementation of the enterprise solution described. T2 will use a licensed electrical contractor, to remove the existing equipment, install new vehicle detection loops as required, install new equipment, and connect all high-voltage wiring.

Once the high voltage wiring is completed, T2 direct, factory trained technicians will complete the installation. T2 is ultimately responsible for the project and the only point of contact for the University.

When the project is complete, a T2 technician will remain in the area as the system's dedicated site service resource through the duration of the initial and any extended warranty period. This person will be responsible to perform all levels of system service including Preventative Maintenance, warranty service, non-warranty service, software monitoring and update implementation, spare parts management, and service log management.

The result of this factory-direct approach is significant. There is no vague communication path between distributor and factory. Finger pointing is a non-issue. T2 does the system design, any suggested lane re-engineering and layout, perform the Factory Acceptance Test, the project management, the implementation, the interim testing, the training, the overall system testing, and perform first-hand all warranty and maintenance procedures.

Interim Testing

Once the Factory Acceptance Test is completed, the equipment is shipped to the site. Work begins to remove old equipment, and perform any related facility / lane modification. The new equipment is then installed in that location.

As each lane is completed and the equipment is turned on, prior to opening that lane for public use, an interim test on that specific lane is conducted. This is a subset of all functionality previously tested during the FAT. It is not a long process – lasting no more than an hour or two. However, by performing the test, T2 can confirm that all the functionality is proper and not adversely affected by the shipping and installation process. This step eliminates embarrassing equipment failures and/or improper functionality. In addition, this is the first exposure University staff and student-parking clientele have with the new system. It is critical that they observe and utilize a fully functioning system right from the beginning.

This is also true of the permit management and citation components. Tests on site are conducted to insure all expected process associated with each of these components is confirmed and the University's operational staff is fluent in the associated management and administrative tasks.

Training

Included in our proposal is a series of training modules specific to the T2 solution offered to the University. The modules address the subject matter described in the RFP but take it a step further. Prior to the actual commencement of the training sessions, a T2 professional trainer will meet on site with the University's operational staff to examine and discuss the intended policies and procedures relating to the overall parking system. In this manner, T2 can make sure the training subject matter is consistent with the operational expectations of the University. For example, there are multiple ways in which the system can address a lost ticket: all of which are

viable. The engagement of the trainer will insure the process desired by the University is incorporated in the training curriculum.

However, before any training is conducted, particularly with regard to exception transactions and special circumstances, it is imperative that T2 understands the University's position with regard to specific practices to be followed by the staff. In this manner, the training sessions are inclusive of both the technical system required components and the subjective, policy-driven components.

Once the system is completed and is operational for a short period, usually 3 to 4 months, T2 will schedule a post-installation review session. T2 will come to the site and observe the daily activity of the system and the associated staff members for a few days. At the conclusion of this observation period, T2 will provide to the University an operational analysis report detailing our findings. The intention is not to overly critique the operation or its staff members, but to identify processes or adjustments that will allow the University to increase efficiency and customer service.

Final System Testing

Once the system implementation is completed and all functionality has been enabled, T2 will schedule a Final System Testing engagement. The purpose is simple – test the system in its entirety for a period of 30 days. The testing criteria are the functionality previously described in the System Design Document and previously confirmed in both the Factory Acceptance Test and the Interim Test process. During this period, any macro system malfunction, causing complete system failure or a facility-down situation will cease the test. The malfunction will be corrected, and a new 30-day testing will begin. Non-system related failures such as acts of God, vandalism, or patron misuse will not be considered system failures. Items affected will be repaired with no interruption of the test. Once the test is completed, the warranty period will commence.

The intention of the Final System Testing is to insure the 'Parking Solution' procured by VCU, collaboratively designed by VCU and T2, tested by VCU and T2, and implemented and configured by T2, is performing to the expectation of both parties.

Warranty

As indicated above, the intention of T2 is to staff the project with a T2 factory trained technician under the direct employ of T2. This will extend from the beginning of the installation through the completion of the warranty period. This technician is responsible for the functional oversight of all new T2 PARCS related equipment. They will be available on-site during the business hours required by VCU. T2 will also provide a toll free service number to the University for all after hours service requests. Once a call is made this number, T2 will commit that the University will receive a phone response within the required time period.



Section 2. Required Forms

- RFP Signature Page
- RFP Addendums 1-6
- Appendix 1–DMBE Form
- Appendix 2–Invoice & Payment Form



Request For Proposals RFP #6018303JC

Issue Date: 5/23/2014

Title: Permit and Citation Management/Parking Access & Revenue Control System

Issuing and Using Agency: Virginia Commonwealth University
 Attention: Jackie Colbert
 10 S 6th St., 2nd floor
 POB 980327
 Richmond, Virginia 23298-0327

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EST) local time on 7/2/2014.

All Inquiries For Information Should Be Directed To: ISSUING AGENCY, address listed above or to Phone: (804) 828-0163, Email: jcolbert@vcu.edu, VOICE TDD: (800) 828-1120.

This solicitation & any addenda are posted on the eVA website at: <http://www.eva.virginia.gov>

HARD-COPY, ORIGINAL PROPOSALS MUST BE RECEIVED IN VIRGINIA COMMONWEALTH UNIVERSITY'S DEPARTMENT OF PROCUREMENT SERVICES ON OR BEFORE THE DATE AND TIME DESIGNATED ON THIS SOLICITATION. ELECTRONIC SUBMISSIONS AND FACSIMILE SUBMISSIONS WILL NOT BE ACCEPTED IN LIEU OF THE HARD-COPY, ORIGINAL PROPOSAL. VENDORS ARE RESPONSIBLE FOR THE DELIVERY OF THEIR PROPOSAL. PROPOSALS RECEIVED AFTER THE OFFICIAL DATE AND TIME WILL BE REJECTED. THE OFFICIAL DATE AND TIME USED IN RECEIPT OF RESPONSES IS THAT TIME ON THE CLOCK OR AUTOMATIC TIME STAMP IN THE DEPARTMENT OF PROCUREMENT SERVICES. IF PROPOSALS ARE MAILED, SEND DIRECTLY TO VIRGINIA COMMONWEALTH UNIVERSITY, PROPOSAL PROCESS DEPARTMENT, POB 980327, RICHMOND, VA 23298-0327. IF PROPOSALS ARE HAND DELIVERED OR SENT BY COURIER, DELIVER TO: VIRGINIA COMMONWEALTH UNIVERSITY, DEPARTMENT OF PROCUREMENT SERVICES, 10 S 6TH ST., 2nd FLOOR, RICHMOND, VA 23219. THE RFP NUMBER, DATE AND TIME OF PROPOSAL SUBMISSION DEADLINE, AS REFLECTED ABOVE, MUST CLEARLY APPEAR ON THE FACE OF THE RETURNED PROPOSAL PACKAGE.

In Compliance With This Request for Proposals And To All Conditions Imposed Therein and Hereby Incorporated By Reference, The Undersigned Offers And Agrees To Furnish The Goods/Services Described Herein In Accordance With The Attached Signed Proposal Or As Mutually Agreed Upon By Subsequent Negotiation. Signature below constitutes acknowledgement of all information contained through links referenced herein.

NAME AND ADDRESS OF FIRM:

<u>T2 SYSTEMS, INC</u>		Date: <u>7/23/2014</u>
<u>8900 KEYSTONE CROSSING</u>		By (Signature In Ink): <u>[Signature]</u>
<u>INDIANAPOLIS, IN</u>	Zip Code <u>46240</u>	Name Typed: <u>TIM MAGINN</u>
E-Mail Address: <u>maginn@t2systems.com</u>	Title: <u>CHIEF OPERATIONS OFFICER</u>	
Telephone: (810) 377 <u>444-7764</u>	Fax Number: (317) <u>524-5501</u>	
Toll free. if available	Toll free. if available	
DUNS NO.: <u>86 904 2747</u>	FEI/FIN NO.: <u>75-2533462</u>	
REGISTERED WITH eVA: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SMALL BUSINESS: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
VIRGINIA DMBE CERTIFIED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	MINORITY-OWNED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
DMBE CERTIFICATION #:	WOMEN-OWNED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

A Pre-Proposal conference will be held. See Section 7, Page 8-61 herein for additional information.



RFP - Addendum

DATE: June 9, 2014

ADDENDUM NO. 01 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert

Jackie Colbert, C.P.M.

T2 SYSTEMS, INC
Name of Firm

Tom Mygum COO
Signature/Title

07.18.14
Date



RFP - Addendum

DATE: June 20, 2014

ADDENDUM NO. 02 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: July 11, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: See Attached.

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

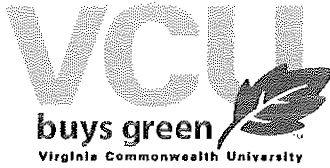
Handwritten signature of Jackie Colbert

Jackie Colbert, C.P.M.

T2 SYSTEMS, INC
Name of Firm

Tom Wagner COO
Signature/Title

07.10.14
Date



RFP - Addendum

DATE: July 3, 2014

ADDENDUM NO. 03 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: July 11, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Jackie Colbert, C.P.M.

TZ SYSTEMS, INC
Name of Firm

Tom Morgan COO
Signature/Title

07.18.14
Date



RFP - Addendum

DATE: July 8, 2014

ADDENDUM NO. 04 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: July 23, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

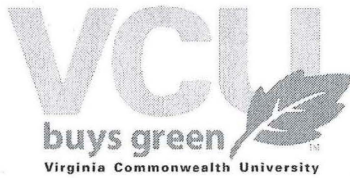
Very truly yours,

Jackie Colbert
 Jackie Colbert, C.P.M.

T2 SYSTEMS, INC
 Name of Firm

Tom Magan *COO*
 Signature/Title

07.18.14
 Date



RFP - Addendum

DATE: July 22, 2014

ADDENDUM NO. 05 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due Date: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: July 30, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Handwritten signature of Jackie Colbert, C.P.M. with 'CO' written above it.

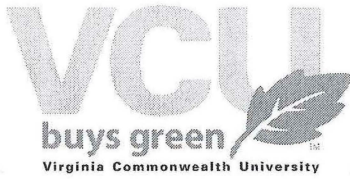
Name of Firm

Signature/Title

Date

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EDT) local time on 7/30/2014.



RFP - Addendum

DATE: July 25, 2014

ADDENDUM NO. 06 TO ALL OFFERORS:

Reference - Request for Proposals: RFP# 6018303JC

Commodity/Title: Permit and Citation Management/Parking Access & Revenue Control System

Issue Date: May 23, 2014

Proposal Due: July 2, 2014 at 11:00 AM

Revised Proposal Due Date: August 6, 2014 at 11:00 AM

Pre-Proposal Conference: June 10, 2014 at 9:00 AM

The above is hereby changed to read: **See Attached.**

NOTE: A signed acknowledgment of this addendum must be received by this office either prior to the proposal due date and hour or attached to your proposal. Signature of this addendum does not constitute your signature on the original proposal document. The original proposal document must also be signed.

Very truly yours,

Handwritten signature of Jackie Colbert, C.P.M.

Name of Firm

Signature/Title

Date

Handwritten notes: T2 Systems Inc, 08/04/14, COO

Reference Page 2, Due Date and Time for receipt of proposals: Change the Item to the following:

Proposals For Furnishing The Services Described Herein Will Be Received Until: 11:00 AM (EDT) local time on 08/06/2014.

APPENDIX I

PARTICIPATION IN STATE PROCUREMENT TRANSACTIONS SMALL BUSINESSES AND BUSINESSES OWNED BY WOMEN AND MINORITIES

The following definitions will be used in completing the information contained in this Appendix.

Definitions

- **Small business** is an independently owned and operated business which, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. Nothing in this definition prevents a program, agency, institution or subdivision from complying with the qualification criteria of a specific state program or federal guideline to be in compliance with a federal grant or program.
- **Women-owned business** is a business concern which is at least 51 percent owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more women, and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority-owned business** is a business concern which is at least 51 percent owned by one or more minorities or in the case of a corporation, partnership or limited liability company or other entity, at least 51 percent of the equity ownership interest in which is owned by one or more minorities and whose management and daily business operations are controlled by one or more of such individuals.
- **Minority Individual:** "Minority" means a person who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:
 - "Asian Americans" means all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Marianas, the Philippines, U. S. territory of the Pacific, India, Pakistan, Bangladesh and Sri Lanka and who are regarded as such by the community of which these persons claim to be a part.
 - "African Americans" means all persons having origins in any of the original peoples of Africa and who are regarded as such by the community of which these persons claim to be a part.
 - "Hispanic Americans" means all persons having origins in any of the Spanish speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who are regarded as such by the community of which these persons claim to be a part.
 - "Native Americans" means all persons having origins in any of the original peoples of North America and who are regarded as such by the community of which these persons claim to be a part or who are recognized by a tribal organization.
 - "Eskimos and Aleuts" means all persons having origins in any of the peoples of Northern Canada, Greenland, Alaska, and Eastern Siberia and who are regarded as such in the community of which these persons claim to be a part.

PARTICIPATION BY SMALL BUSINESSES, BUSINESSES OWNED BY WOMEN
BUSINESSES OWNED BY MINORITIES

This appendix should only be completed by firms that are not Virginia Department of Minority Business Enterprise (DMBE) certified small businesses.

Offeror certifies that it will involve Small Businesses, Women-Owned Businesses, and/or Minority-Owned Businesses (SWaM) in the performance of this contract either as part of a joint venture, as a partnership, as Subcontractors or as suppliers.

List the names of the SWaM Businesses your firm intends to use and identify the direct role of these firms in the performance of the contract. State whether the firm is a Small Business (SB), Women-Owned (WO), or Minority-Owned (MO).

<u>Name of Businesses:</u>	<u>SB, WO, MO:</u>	<u>Role in contract:</u>
E-SQUARED	MO	SYSTEM DESIGN DOCUMENTATION
ENGINEERING		TRAINING CURRICULUM
		SYSTEM ACCEPTANCE

Commitment for utilization of DMBE SWaM Businesses:

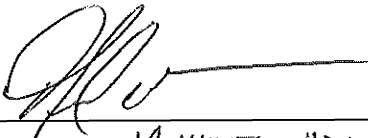
2 % of total contract amount that will be performed by DMBE certified SWaM businesses.

Identify the individual responsible for submitting SWaM reporting information to VCU:

Name Printed: RICHARD B. EXSLEY
 Email: REXLEY@E-SQUARED.ORG
 Phone: 703-858-9545
 Firm: E-SQUARED ENGINEERING

Offeror understands and acknowledge that the percentages stated above represent a contractual commitment by the Offeror. Failure to achieve the percentage commitment will be considered a breach of contract and may result in contract default.

Acknowledged:

By (Signature): 
 Name Printed: MICHAEL ADAMS
 Title: PARCS SOLUTIONS EXECUTIVE
 Email: madams@f2systems.com

Note: Small, Minority and/or Women-owned business sub-contractors are required to become certified and maintain certification through the Virginia Department of Minority Business Enterprise (DMBE; <http://www.dmb.e.virginia.gov/swamcert.html>) to fulfill the Offeror's commitment for utilization.

APPENDIX II INVOICING AND PAYMENT

Invoicing:

The Contractor shall submit a fully itemized invoice to Virginia Commonwealth University, Accounts Payable and Support Services, P. O. Box 980327, Richmond, VA 23298-0327, that, at minimum, includes the following information: the Virginia Commonwealth University purchase order number; a description of the goods or services provided; quantities; unit prices; extended prices; and total prices. Payment will be issued in accordance with the payment method selected below and with the Commonwealth of Virginia Prompt Payment Legislation.

Upon request by VCU, the Contractor shall submit invoices electronically using the Ariba Network or other e-commerce channel utilized by VCU; and agrees to comply, within reason, with any future e-commerce initiatives including, but not limited to: procurement, procurement content, sourcing or any other electronic procurement and sourcing solutions.

Questions regarding this method of invoicing should be sent to: ecommerce@vcu.edu.

Payment:

VCU Procurement Services is automating the payment process to the greatest extent possible. Contractors are encouraged to accept payment electronically through the commercial card program. Please review the payment methods described below and select one for your firm. By selecting the payment method below, Contractor acknowledges that the selected payment method is **not specific to the contract resulting from this solicitation and will apply to all payments made to the Contractor** by Virginia Commonwealth University. For example, if the Contractor has an existing contract(s) and is currently receiving payment by paper check, and the Contractor is now electing to receive payment by the commercial card, **all payments** will be made using the commercial card once the commercial card payment process is implemented for the firm.

Payment Methods

1. Electronically through a Wells Fargo Visa commercial card: Payment will be made ten days (10) after receipt of a proper invoice for the amount of payment due, or ten (10) days after receipt of the goods or services, whichever is later.

It is the Contractor's responsibility to contact its banking institutions to determine any credit limit that may restrict the payment of invoices. It is the Contractor's responsibility to have its credit limit raised as necessary to facilitate the timely payment of all invoices. Invoices exceeding the Contractor's credit limit will be returned unpaid.

Failure to accept the commercial card after award of contract will be considered a contract compliance issue and will be addressed accordingly. In addition, invoices will be returned without payment until the Contractor can accept the payment through the commercial card.


Questions regarding this method of payment should be sent to commcard@vcu.edu.

2. **ACH:** Electronic payment via automated clearing house (ACH) to the vendor provided bank account of record. Payment is processed thirty (30) days after receipt of a proper invoice for the amount of payment due, or thirty (30) days after receipt of the goods or services, whichever is later. Additional information about ACH payments is available at: <http://www.vcu.edu/treasury/VendorACH.htm>.

Contractor must indicate the method of payment selected:

Commercial Card Payment (Wells Fargo VISA)
 Automated Clearing House (ACH)

Invoicing and Payment Method Acknowledgement:

Signature: 
Name Printed: KELLEY BRITA
Title: CONTROLLER
Name of Firm: T2 SYSTEMS, INC
Date: 11/23/2014

Please identify the following contact information for the individual who will serve as the appropriate point of contact within your company to be contacted by VCU Accounts Payable to implement the electronic invoicing and payment processes:

Name of the individual: KELLEY BRITA
Title: CONTROLLER
Mailing address: 8900 KEYSTONE CROSSING SUITE 700
INDIANAPOLIS, IN 46240
Email address: KBRITA@T2SYSTEMS.COM
Phone number: 317-524-3623
Fax number: 317-524-5501



Section 3. Technical Response Permit & Citation Management

SECTION 3 - TECHNICAL RESPONSE

PERMIT AND CITATION MANAGEMENT

1.7 Software Interface Requirements

The Permit and Citation Management System shall include the following system options that must be capable of interfacing with the University's existing Banner System, CBORD and Blackboard systems, and between each module of the system, shall be configured to meet the University's business requirements for permit, transient and event parking.

The University reserves the right to award one or more or all of the following systems and may award to more than one vendor:

1. Parking Facilities Management System
2. Programmable Access Control System
3. Automated Transient Parking Payment System
4. Web-Based Online Parking Permit System
5. Managed Permit Fulfillment Services
6. Web-Based Citation Enforcement/Payment System
7. Web-Based Event Parking Reservation System
8. Secure Credit Card Transaction Processing System

T2 Systems Response: T2 Systems acknowledges.

System Hosting Options

The University will consider Hosted and VCU Hosted proposals.

- 1) Vendor/Contractor Hosted Environment
- 2) VCU Hosted Environment
- 3) Hybrid Hosted Environment

T2 Systems Response: T2 Systems is proposing a Vendor/Contracted Hosted Environment.

System Hosting Technical Requirements

If vendor proposes a hosted, Web-based, Software as a Service (SaaS) solution:

Item #	Questions and Requests
1.	<p>All hardware and software required for the solution must be housed in a secure site and vendor must provide a SAS 70 style security report from a third-party reviewer</p> <p>T2 Systems Response: All hardware and software is housed in a secure site, provided by Expediant Data Centers. Expediant switched from their normal SAS-70 Type II Compliance to SSAE-16. This is a natural change in compliance for the industry.</p>

2.	<p>Solution must include the services required for installation, integration, testing, and maintenance</p> <p>T2 Systems Response: Installation, integration, testing and maintenance are included with T2’s hosting services. Please refer to the T2 Flex Subscription Agreement (contract), attached in the appendix, for additional detail.</p>
3.	<p>Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data</p> <p>T2 Systems Response: T2 Flex uses SSL (Secure Sockets Layer) encryption at the source and then transmits the data to the destination where it is restored to its original form. This is the same technology used worldwide by banks, brokerages and credit card companies to ensure that data remains secure and is protected.</p> <p>Firewalls restrict access to specific IP addresses and ports. If your parking operation uses fixed IP addresses you can disallow any network traffic that doesn’t come from these IP addresses. If you use variable IP addresses, you can open a “block” of allowed addresses to restrict access. If T2 hosts, we also restrict access to specific “ports” on the application server, thereby closing down any back doors to the system.</p> <p>Another defense against unauthorized access is using up-to-date security patches. When T2 hosts your T2 Flex application, we maintain all of the servers with the latest security patches (and virus patches) to minimize the chance a hacker can get in.</p>
4.	<p>Solution must provide at minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU</p> <p>T2 Systems Response: Protecting data is critical to any operation. T2 offers redundant backup techniques to ensure data is protected.</p> <ul style="list-style-type: none"> ■ RAID (redundant array of independent disks). This is a live, automatic failover system. If a RAID disk fails, the customer will never notice and no data will be lost from the array. ■ Database archive logs are periodically moved throughout the day to external disk storage (disk-to-disk backup). This protects the data in the event the database server or storage array fails between full backups. ■ Full "hot" (database is "on" and remains usable) disk-to-disk backups are performed weekly. ■ The archive logs and full backups are used for a nightly differential & weekly full disk-to-tape backups. (The tape backups are taken to a secure offsite storage facility.)
5.	<p>Solution must run on redundant servers with failover capability</p> <p>T2 Systems Response: Your data is protected by a live, automatic failover system RAID (redundant array of independent disks.) If a RAID disk fails, the customer will never notice and no data will be lost from the array.</p>

6.	<p>Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery</p> <p>T2 Systems Response: T2's hosting environment is monitored 24x7 and any outages will be reported to VCU.</p>
7.	<p>Solution must provide Web-based remote and mobile access using any industry standard device and browser combination</p> <p>T2 Systems Response: T2 Flex is cloud based application. Our solution can easily be accessed via the web. We do not require the University install any client software such as Citrix. Workstations running Windows 7 or 8 with Internet Explorer 10 or 11 can access our solution without issue. Every user will be required to provide a username and password to access the University's private database.</p>
8.	<p>Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding</p> <p>T2 Systems Response: Based on the information provided within the RFP, T2 does not foresee any additional middleware or custom coding. However, additional business requirements need to be gathered to confirm this.</p>
9.	<p>Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes.</p> <p>T2 Systems Response: T2 Flex offers administrator level security access for VCU to monitor users, data, workflow and internal processes. VCU can utilize the role management feature for this.</p>
10.	<p>System outages for maintenance must not be scheduled during normal working hours (Monday – Friday, 6am – 11pm, EST)</p> <p>T2 Systems Response: T2 Systems complies. The T2 Hosting Environment has three "types" of scheduled downtime windows, each for different purposes.</p> <p>Projects: Monday mornings at 12:01 AM until 2:00 AM Eastern. Time reserved for large scope projects, like upgrading storage, servers, or networking. We use, on average, about one window a month for ongoing equipment upgrades. During which time, most or all of our systems are often up and fully functional. However, as a matter of protection for our customers, we schedule any work that has even a small potential for downtime during these windows.</p> <p>Urgent Fixes: Every day from 5:00 AM until 6:00 AM Eastern. This is the time we reserve for urgent work usually related to the repair of failing components or the implementation of critical security patches (like critical/urgent Microsoft "patch Tuesday" updates). On average we use about one of these a week, but we're rarely down for the entire hour. Usually it is only minutes while we reboot servers to apply patches.</p> <p>Backups: Every Saturday morning from 2 AM until about 10 AM Eastern. This is the time where we do cold backups of each hosted database. Each customer is down for only the time it takes to back up their database (an average of around 10 minutes). We also map the times to the time zones of the customers. For example, the backups of databases in California and Hawaii take place later in the window because it is still the early morning there.</p>

11.	<p>Solution must provide scalability and adaptability to changing business needs. Customization methodology must be specified.</p> <p>T2 Systems Response: T2’s services are scalable so that the University can add additional services as it grows or its needs change.</p> <p>The open architecture and standards-based data exchange of T2 Flex make integration with other systems easier, reducing the need for custom manipulation of data. T2 Flex leverages the following technologies:</p> <ul style="list-style-type: none"> ■ Microsoft®.NET — A development environment providing greater availability, maintainability, scalability, security and performance. ■ Web Services — A way to exchange data that is as simple as sending and receiving messages using standard protocols like XML. Through T2’s web services, integration with T2 Flex is simple.
12.	<p>User authentication must be LDAP compatible and ideally CAS for VCU administrative access</p> <p>T2 Systems Response: T2 Flex offers the ability to use LDAP and CAS authentication, making use of security mechanisms already put in place by your network administrators.</p>
13.	<p>Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods.</p> <p>T2 Systems Response: T2 has provided the 3 year TCO for the T2 Flex Permit & Citation/Enforcement solution, within the VCU required financial worksheet.</p> <p>Given that T2’s software and hosting services are offered as a subscription, all other fees for the components currently required would be first year / up-front costs. Going forward, after year 3, VCU would only pay for software and hosting subscription costs. These costs can simply be calculated with a 5% annual increase for the annual fee.</p> <p>Upon further consideration for project award, T2 will provide a comprehensive quotation for subscriptions over the initial 3 year period if this is necessary for immediate evaluation. In addition, T2 will configure a more specific pricing model for VCU – based on future initiatives and products which may be desired.</p>

Interface

Item #	Questions and Requests
1.	<p>System should accept files in tab delimited, LST, TXT and CSV format from VCU Banner HR, Student, and Finance systems sent by secure file transfer SFTP</p> <p>T2 Systems Response: T2 Systems Flex application prefers files in txt and csv formats. T2 offers SFTP (Secure File Transfer Protocol) which provides an extra layer of security for FTP file transfers. SFTP is essentially a “wrapper” that encrypts the username, password, and content of the files. SFTP offers a very secure channel through which private data can be transmitted. T2 strongly encourages customers that need to transfer files to T2 to use SFTP rather than FTP.</p>

2.	<p>System should create files in tab delimited, LST, TXT and CSV format with the ability to have files picked up from a SFTP location by secure file transfer.</p> <p>T2 Systems Response: T2 Systems prefers to create files in txt and csv formats. Files can be picked up from a SFTP location by secure file transfer.</p>
3.	<p>Shall interface with Banner for transactions related to students, faculty and staff. There are three interfaces needed:</p> <ul style="list-style-type: none"> a) Banner student account transactions passed to Banner Accounts Receivable b) Banner faculty and staff Human Resource transactions passed to Banner payroll system c) Banner financial transaction feeds to Banner finance for non-student, non-faculty/staff payment transactions <p>T2 Systems Response: T2 Systems can meet all three interfaces needed. Banner is just one of several systems for which T2 has developed interfaces. T2 has worked with Banner for over 10 years and currently has over 70 customers whose parking systems interface with Banner, successfully sharing and making data available within both systems to help their entire organization be more efficient. T2 will have to conduct further requirements to finalize these interfaces. VCU can also determine the frequency of data exchange, from daily to every minute. In other words, the parking office maintains control of its own operation. T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (for example sending citations for student holds and receiving citation payment information from Banner or other system).</p>
4.	<p>Shall have a certified interface with Banner, CBORD and Blackboard for RAM BUCKS account access and access security validation for VCU CARD based transactions.</p> <p>T2 Systems Response: T2 offers interfaces with Banner, CBORD and Blackboard.</p> <p>Banner</p> <p>Banner is just one of several systems for which T2 has developed interfaces. T2 has worked with Banner for over 10 years and currently has some 70 customers whose parking systems interface with Banner, successfully sharing and making data available within both systems to help their entire organization be more efficient. The benefit to T2 customers is that these interfaces allow parking offices to share data with Banner while still maintaining their own business rules, so they don't have to follow the rules or guidelines of other departments. Customers can also determine the frequency of data exchange, from daily to every minute. In other words, the parking office maintains control of its own operation.</p> <p>T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (sending citations for student holds and receiving citation payment information from Banner or other system).</p>

	<p>T2 Flex real-time integration with Banner supports:</p> <ul style="list-style-type: none"> ■ Demographics: Banner controls name, address, subclassification, and other demographic information unless a record is marked otherwise. ■ Citations: Flex notifies Banner, and Banner responds accordingly. <p>Blackboard</p> <p>T2 Flex integration with Blackboard lets students use their Blackboard one-cards as payment cards at:</p> <ul style="list-style-type: none"> ■ T2 Credit Card Entry/Exit Stations ■ T2 Automated Pay Stations (both pay-on-foot and pay-in-lane) ■ T2 Flex Cashier Stations ■ T2 Flex Selection Basket <p>Refunds, returns, and other manual transactions on Blackboard one-cards must still be performed at the customer card office as usual for Blackboard. Blackboard integration lets ARC POS stations and the Flex Selection Basket take payment via Blackboard cards, but does not include refunding or refilling Blackboard cards.</p> <p>Processing Blackboard one-card transactions starts like credit card transactions. However, unlike credit card processing, communication to the customer Blackboard Server is handled from the T2 Blackboard Server, not the Credit Card Web Server. The Credit Card Web Server merely relays transaction data to the T2 Blackboard Server.</p> <p>CBORD</p> <p>T2 Flex integration with CBORD lets students use their CBORD one-cards as payment cards at:</p> <ul style="list-style-type: none"> ■ T2 Credit Card Entry/Exit Stations ■ T2 Automated Pay Stations (both pay-on-foot and pay-in-lane) ■ T2 Flex Cashier Stations ■ T2 Flex Selection Basket <p>Refunds, returns, and other transactions on CBORD one-cards must still be performed at the customer card office as usual for CBORD. CBORD integration lets ARC POS stations and the Flex Selection Basket take payment via CBORD cards, but does not include refunding or refilling CBORD cards.</p>
5.	<p>Shall interface at a minimum the Permit Holder database within the University's PARC system :</p> <ol style="list-style-type: none"> a) All other systems within the Parking Access and Revenue Control System (Facility Management, Transient Fee Collection, Reporting, Barrier Gates, Access Control, Credit Card System, and Event Management System b) University in-house Wi-Fi (IEEE 802.11 a/g/n) system <p>T2 Systems Response: T2 Systems is offering a unified parking management solution/system, therefore, The Permit and Citation Software system and the PARCS Software system reside in one database.</p>

T2 would be interested to learn more about the University's intentions to interface the in-house Wifi with the parking management solution. While the enforcement/citation management solution can work with the University Wifi, development with other solutions would be necessary upon final assessment.

Authentication

Item #	Questions and Requests
1.	<p>Access to functions should be limited by assigned user roles</p> <p>T2 Systems Response: T2 Flex allows for a wide range of user access control, role-based user management, and security that can vary by module and security level from read-only access to complete insert/edit/delete capability anywhere within the T2 Flex application. Our solution supports profiles for roles, with rights and security privileges based on job needs. Users are assigned a role(s), rather than granting each user individual privileges. When a role changes, the user's privileges are automatically updated.</p>
2.	<p>User ID and password shall be required to access the applications with lockout controls as auto log-off to frequently change passwords</p> <p>T2 Systems Response: VCU can configure the following requirements regarding passwords used in user authentication at both the login screen and when a password is setup or changed:</p> <ul style="list-style-type: none"> ■ Minimum and maximum number of characters for a valid password. ■ Require mixed capitalization. ■ Require special characters. ■ Require numbers and letters. ■ Require password to be unique from previous passwords. ■ Set the number of previous passwords to compare against. ■ Require password to be changed after a set period of time as determined by the administrator. This may be configured to be turned on or off. ■ Maximum number of incorrect login attempts before User ID is locked out. ■ Set to automatically unlock a locked out user ID after a number of minutes configured by user.
3.	<p>System should allow LDAP and Local account authentication. LDAP will be used for VCU Students, VCU Faculty & Staff. Local accounts will be used for Non-VCU Employees and Non-VCU Event permit requestors.</p> <p>T2 Systems Response: T2 Flex offers the ability to use LDAP authentication, making use of security mechanisms already put in place by your network administrators. Non-VCU Employees can authenticate against the local Flex database.</p>

4.	<p>System should have API's available to allow single sign-on using CAS (Central Authentication Service). Single sign-on should be usable from any VCU.edu site to the system's website.</p> <p>T2 Systems Response: T2 will work with the University's IT department to implement a single sign on solution for University affiliates using CAS.</p>
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Security

Item #	Questions and Requests
1.	<p>Shall provide essential security based on access levels. Functions and screens should not be displayed or accessible unless the user has the necessary level of security. For example: A cashier batch should only be accessible to the cashier that opened the batch and others based on security level. Shall allow for user configuration of role privileges and specific individual overrides of standard role security privileges.</p> <p>T2 Systems Response: T2 Flex allows for a wide range of user access control, role-based user management, and security that can vary by module and security level from read-only access to complete insert/edit/delete capability anywhere within the T2 Flex application. Our solution supports profiles for roles, with rights and security privileges based on job needs. Users are assigned a role(s), rather than granting each user individual privileges. When a role changes, the user's privileges are automatically updated.</p> <p>In T2 Flex, the chain of custody feature allows you to set up strict inventory control for selected permit number ranges. With strict inventory control implemented, customer service representatives in the parking office have a personal inventory of permits for which they are responsible. They can request new inventory, return existing inventory, or transfer inventory to another customer service representative. A user with special privileges, called the inventory controller, fulfills these requests from the secure area. The ability to restrict cash drawers to single users adds additional visibility into the permit chain of custody.</p> <p>If selected, users with this privilege can override otherwise restricted financial transactions during the check-out process. This option overrides other financial options such as the permit waive amount and citation waive amount. For posting shortages, no matter how small, an override is needed.</p>
2.	<p>Segregation of duties should be an integral internal control, so that a single individual cannot have access to divert resources.</p> <p>T2 Systems Response: VCU will have full control on segregating duties within Flex. Flex's User Management settings allow VCU to create and manage T2 Flex users and control every element of those users' access to T2 Flex by granting rights in addition to those of their roles.</p>

Mobile App

Item #	Questions and Requests
1.	<p>Contractor shall provide a web application optimized for mobile devices so that faculty, staff, students and visitors can locate parking lots and decks, and determine if spaces are available. Ideally, the mobile parking application will be included in the official mobile application for the University. If a native mobile application (iOS, Android or BlackBerry) is available, Contractor shall agree to the Banner, CBORD and Blackboard Mobile non-disclosure agreements and use the Banner, CBORD and Blackboard Mobile Software Development Kit (SDK) so that the parking app can be included in the official mobile application for the University.</p> <p>T2 Systems Response: T2 has partnered with various vendors for this type of solution, and would be pleased to discuss the many options available for integration with our solution</p>
2.	<p>For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. The VCU mandate is that no payment card information will be stored on any VCU systems at any time.</p> <p>T2 Systems Response: T2 understands the University's mandate, and will comply.</p>
3.	<p>Mobile application should include the ability for a user to update their account or parking permit.</p> <p>T2 Systems Response: T2 eBusiness supports the top four browsers (currently Internet Explorer, Chrome, Firefox, and Safari) and the two versions of those browsers that are publically available and in general release (not alpha/beta/preview/pre-release) at the time of the application's release. There is currently not a separate mobile site. However, the sites are simple enough that they are nicely displayed on mobile devices.</p>

1.8 General Financial Management Function

Item #	Questions and Requests
1.	<p>Shall provide the financial functions of payments, service fees, deposits, credits, adjustments and reversals for accounts with quick links and full detailed information displayed on screen for Parking staff and administrators with complete audit trail.</p> <p>T2 Systems Response: T2 Flex's financial management system provides the full financial functions for VCU to accept payments for citations and permits as well as other outstanding balances. Flex also offers the ability to add miscellaneous fees to a particular record and accept deposits or credits. Adjustments to a financial record can be processed in Flex as well. Users with the right to reverse ls can reverse financial transactions. Each record will have a financial audit trail which displays any adjustments to the record, user, date and time stamp. Each record will have quick links to full detailed information for VCU staff to have all the information needed at their fingertips.</p>

2.	<p>The faculty/staff decal purchases may be purchased by immediate payment through payroll deduction or, spread out over several months as a payroll deduction.</p> <p>T2 Systems Response: Faculty/Staff will be able to purchase decals immediately through payroll deduction. T2 Flex allows you to set up two different kinds of payment plans -- external and internal - for customers to pay for certain items. VCU will determine the business rules, for example, controlling which customer classifications are allowed for payroll deduction, determine the standard number of payments, amount per payment, and length of time between payments.</p>
3.	<p>Online payment processing services that will interface with a system for customers to pay for citations, parking permits and event permits.</p> <p>T2 Systems Response: T2 Systems offers eBusiness Solutions for your customers to pay for citations, parking permits and event permits.</p> <p>T2's eBusiness Solutions are built on best-practices logic and fully integrate with your T2 Flex database in real time. We've built many parking websites so we've learned what works and what doesn't, and we know the parking industry so you will not experience a learning curve in dealing with T2. Standard reports are available to track online activity and facilitate easy reconciliation of payments processed.</p> <p>The eBusiness solution integrates with the University's chosen Internet Payment Gateway (IPG.) A list of common IPG's T2 integrates with can be provided. The customer will be transferred to the IPG's hosted order page to enter all credit card information to complete the transaction. All payments are processed in in real time. Additional payment methods such as payroll and student billing are supported.</p>
4.	<p>Fully support hardware devices that fully integrate with the PC based parking management software system</p> <p>T2's Response: T2 Systems Flex application integrates with the following point of sale hardware:</p> <ul style="list-style-type: none"> ■ Heritage Cash Drawer – Flex application will automatically open the cash drawer when appropriate ■ Epson Receipt Printer – TM-U375- Flex users can use this printer to print receipts or endorse checks ■ Voyager Scanner – MS9540 – Flex users can scan a bar code printed on sale items (such as citations, permits, and credentials) into various fields to facilitate rapid data entry and lookup at the point of sale.
5.	<p>Cash receipts shall be managed in daily batches created by individual cashiers. General ledger entries will be automatically imported into the General Ledger system for posting at regularly scheduled time periods. The file will be created by the software quoted in this RFP.</p> <p>T2 Systems Response: Individual cashiers open and manage their own daily financial cash drawer session within the Flex application. Each transaction will be linked to a unique general ledger account. A report can be generated to display the transaction and the associated general ledger.</p>

6.	<p>Capable of accepting updated data in proper format from internet based payment systems</p> <p>T2's Response: T2 Flex is capable of accepting updated data from internet based payments systems. For example, payments made on T2's ecommerce site are updated in real time.</p>
7.	<p>Update all files and refresh screen displays as soon as an update is completed for all users on the administrative side</p> <p>T2's Response: As soon as a record is updated, users can refresh the display screen and the files/records will be updated.</p>
8.	<p>Shall display real time balance on each cashier's screen of cash and check payments Needs to have a balancing component, that will allow the cashier to compare funds in the drawer, with amounts entered in the system's cashiering function, and a supervisor approval component.</p> <p>T2's Response: Each cashiers screen will display their individual real time balance. This includes all payment methods. Reports can be generated which will segregate the payment methods. The cash drawer function in Flex allows cashiers to compare funds in the drawer against what was processed in the cashiering system. Once the cashier has completed this process, a closing balance must be entered. A supervisor approval is needed for posting any shortages.</p>
9.	<p>Shall generate receipt/transaction numbers for payments</p> <p>T2 Systems Response: All financial transactions within Flex will generate a receipt and a unique identification number. This includes payments, reversals, and/or credits.</p>
10.	<p>Ability to make adjustments for misapplied payments or reverse payments with a complete audit trail</p> <p>T2 Systems Response: T2 Flex includes the option for administrators with proper access to reverse receipts. If a cashier has entered the wrong payment type, incorrectly issued a decal, or made any other clerical error, Reverse Receipt can be used to correct the problem. There will be a complete audit trail displaying the user, transaction information, date and time.</p>
11.	<p>Provide an audit trail to track payments by type (cash, check, money order, credit card, RAM BUCKS)</p> <p>T2 Systems Response: Any record in Flex with direct or associated financial transactions has a menu option from its manager called View Financial History. From this menu option you can quickly view financial information about the record including all fees, payments and adjustments as well as the Flex or Web user responsible for the financial transaction, the receipt UID, and the payment method used such as cash, check, money order, credit card, and/or RAM BUCKS.</p>
12.	<p>Ability to manually apply and remove flags on an account for various reasons</p> <p>T2 Systems Response: VCU can manually apply and remove flags on an account for various reasons such as NSF checks, Scofflaws, and/or registration holds.</p>

13.	<p>Ability for customers to view, print and pay all charges (permits, citations, etc. via internet and to allow for transactions to be charged to student accounts, and to payroll accounts for student/faculty/staff.</p> <p>T2 Systems Response: T2 Systems offers eBusiness Solutions for your customers to pay for citations, permits and any other charges able to be paid via the internet:</p> <ul style="list-style-type: none"> ■ Permit Sale application - follows all rules and configuration established within T2 Flex and allows you to control additional settings in order to “train” eBusiness as you would train a cashier. ■ Citation Payment application - makes it convenient for your customers to pay citations and watch collections increase. ■ Parking Account - Your customers can view citation history, permit history and personal information. <p>The eBusiness solution integrates with the University’s chosen Internet Payment Gateway (IP G.) A list of common IPG’s T2 integrates with can be provided. The customer will be transferred to the IPG’s hosted order page to enter all credit card information to complete the transaction.</p> <p>All payments are processed in real time and will show as paid in the Flex application.</p> <p>The University may allow other payments online such as payroll deduction and student billing which are integrated with Banner through a batch interface.</p>
14.	<p>Shall update all files and refresh screen displays as soon as update is completed and be available to all users</p> <p>T2 Systems Response: All users will be able to see updated files and refreshed screens as soon as an update is complete.</p>
15.	<p>Ability to code transactions or provide comments of explanation as to the type and reason for the transaction</p> <p>T2 Systems Response: Flex will allow for comments depending on the transaction. Flex also offers a Note content manager where users can enter text and attach documentation. This record will provide an activity history displaying user and date/time stamp.</p>
16.	<p>All changes, adjustments, credits made to any account should create a record with the user’s name, date, time stamp and reason code for the adjustment and should not be user-alterable. The record should be easy to retrieve by query / report.</p> <p>T2 Systems Response: Any record in Flex with direct or associated financial transactions has a menu option from its manager called View Financial History. From this menu option you can quickly view financial information about the record including all fees, payments and adjustments as well as the Flex or Web user responsible for the financial transaction, the receipt UID, and the payment method used. This audit trail is cannot be altered. Queries and/or reports can be used to find the transactions.</p>

17.	<p>Provide approval capability on the administrative side to include but not be limited to financial overrides and permit sale overrides. Admin users should have the ability to override/approve transactions that they can't complete without approval.</p> <p>T2 Systems Response: Allows an administrator user to perform a receipt reversal for a standard user who does not have Reverse Receipt privileges. The supervisor will have to enter an override ID (user name) and password in order to reverse the receipt.</p> <p>If selected, users with this privilege can override otherwise restricted financial transactions during the check- out process. This option overrides other financial options such as the permit waive amount and citation waive amount. For posting shortages, no matter how small, an override is needed.</p>
18.	<p>Allow administrative staff to monitor and manage users, citations, invoices, payments, reports, user groups, parking lots, and audit system settings</p> <p>T2 System Response: Queries and Reports can be utilized for administrative staff to audit system settings such as user management, payments, etc.</p>
19.	<p>System should be able to send mass emails to users with the ability to add attachments created by the applications. The system created attachments should in a PDF format</p> <p>T2 Systems Response: Flex is able to send group emails to your customers. VCU can select which customers and can automatically schedule a task to run on a defined schedule. The email can have a PDF attachment or the message can be within the body of the email.</p>

1.9 Credit Card Processing

Item #	Questions and Requests
1.	<p>For the processing of credit card payments, the University is currently utilizing ELAVON Merchant Services Processing Platform.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
2.	<p>VCU requires that credit card readers be capable of reading mag stripe products; and VCU will require integration infrastructure for NFC cards and EMV smart card with chip & pin technology.</p> <p>T2 Systems Response: T2 complies and has new equipment to meet the upcoming EMV standards and requirements. T2 completed design work in 2013 and is set to release newly manufactured equipment to clients wanting/requiring EMV readers, by November of 2014.</p>

1.10 Parking Permit System - Online

Item #	Questions and Requests
1.	<p>Allows users to register and obtain parking permits online by registering their vehicles.</p> <p>T2 Systems Response: T2's online permit sales solution allows for your customers to register their vehicles and obtain parking permits.</p>
2.	<p>Allow users to add multiple license plates per permit for primary, secondary, etc. vehicles.</p> <p>T2 Systems Response: T2's online permit sales solution allows for your customers to add multiple license plates per permit.</p>
3.	<p>Allow users the ability to change their primary license plate on-line for a permit to another license plate (vehicle) if needed.</p> <p>T2 Systems Response: T2's online permit sales solution allows for your customers to change their primary license plate to another license plate if needed.</p>
4.	<p>Provide for multiple types of permits. Currently, VCU utilizes four permit types</p> <p>T2 Systems Response: T2's online permit sales solution allows for multiple types of permits. VCU determines which permit types are allowed to be sold online.</p>
5.	<p>The use of physical RFID Permit tags with the ability to use with Citation devices must be possible.</p> <p>T2 Systems Response: The Citation devices being proposed, the Motorola MC75a's, have the built in reader for RFIDs, however, T2 does not sell or support the software.</p>
6.	<p>The system must allow the use of physical RFID Permit tags as permit types. The ability to use hand held permit recognition software and hardware with the system.</p> <p>T2 Systems Response: The Citation devices being proposed, the Motorola MC75a's, have the built in reader for RFIDs, however, T2 does not sell or support the software.</p>
7.	<p>System must have the ability to print out and use temporary permits and must meet all relevant anti-forgery standards.</p> <p>T2 Systems Response: The Flex application has the capability to print out temporary permits. The temporary permit can automatically generate a permit number, barcode, license plate and other pertinent information to avoid forgery and duplication.</p>
8.	<p>System should allow the ability for accounts to have permits changed by users if needed.</p> <p>T2 Systems Response: T2 Flex allows for permits to be changed by users if needed.</p>

9.	Permits will need to be purchasable though payment plans, cash, credit cards. T2 Systems Response: VCU will determine the payment methods accepted for permits. Those payment methods can include payment plans, cash and credit cards.
10.	The system must allow multiple types of payment plans to be available for permit payments. T2 Systems Response: VCU determines the multiple permit payment schedules that determine the standard number of payments, amount per payment, and length of time between payments for payment plans.
11.	The system must allow for the transfer of payments to various payment and billing departments of the University. T2 Systems Response: The Flex allows for the transfers of payments to various payment and billing departments.

1.11 RFID Permit Encoding & Supply

Item #	Questions and Requests
1.	The RFID Permit shall have an RFID micro circuitry Alien G inlay associated to the Antenna/Reader located at all VCU parking facilities from the PARCS provider. T2 Systems Response: T2 Complies
2.	The UHF RFID Permit inlay shall transmit at a 915MHz, EPC Class 1, GEN 2 and is compliant with ISO 18000-6. T2 Systems Response: T2 Complies
3.	RFID inlays feature Alien (brand) Higgs-3 silicone chips, which feature a 96-bit (24-characters) factory-encoded Tag ID number, 96-bit EPC memory bank and 512-bit User Memory Bank. The EPC and User Memory banks may be utilized for customer specific encoding. T2 Systems Response: T2 Complies
4.	VCU's parking applications utilize the EPC Memory bank, with data encoded to specifications provided by VCU. Custom encoded EPC data usually includes Facility Codes or Prefixes identifying specific lots or garages, followed by sequential Permit Numbers, much like data historically encoded in barcodes. T2 Systems Response: T2 Complies

5.	<p>Custom encoded data may be formatted as 4-bit (hexadecimal) code, 8-bit ASCII code, or decimal values.</p> <p>T2 Systems Response: T2 Complies</p>
6.	<p>Different reader brands and models offer different defaults and/or options governing how data read from tags is interpreted and/or translated. Acceptable manufacturers of the RFID/Antenna are compatible to ISO 18000-6C and EPC Class 1, Gen 2 standards include the following.</p> <p>Nedap uPass TagMaster XT-3 Sirit 4100 Rapid Pass MR6011</p> <p>T2 Systems Response: T2 Complies, and will use the TagMaster XT-3</p>
7.	<p>All RFID Permits must be guaranteed to perform satisfactorily in the heat and not to break in the cold and withstand the general intended use with daily handling and transferring. All printing and numbering on permits shall be provided with sun resistant inks that will remain in good legible condition for a period of one (2) years after permit has been in use on vehicle.</p> <p>T2 Systems Response: T2 Complies</p>
8.	<p>Contractor to provide 50 TEST samples of RFID Permits to VCU for system testing and compatibility to Antenna/Reader and PARCS network.</p> <p>T2 Systems Response: T2 Complies</p>
9.	<p>The RFID Inlay memory chip – must hold 60+ blocks of information containing several fields of info per block, i.e., name, address, Permit #, license plate #, etc.</p> <p>INSIDE MOUNT REPOSITIONABLE DECAL Size: 1.875 X 4.5 Prints Both Sides 1 Type / Consecutive Numbering On Front Front Prints In 4-Color Process, All Being The Same Picture Back Prints In 1-Color, All Being The Same Alien G Inlays (ALN-9645) Applied To The Back Encoding Of RFID Inlays Scalloped Liner</p> <p>T2 Systems Response: T2 Complies</p>
10.	<p>Repositionable Dry Seal Decals are designed for inside-windshield application and are easy to remove and re-apply to a smooth, contaminant-free interior glass surface.</p> <p>T2 Systems Response: T2 Complies</p>

11.	<p>Adhesive - The adhesive shall remain “open” for a period of one year of normal use.</p> <p>T2 Systems Response: T2 Complies</p>
12.	<p>Material - 4 mil. clear Polyester with 3 mil. clear matte liner. A tough, flexible, transparent polymer film with a specially treated printing surface backed by a colorless, low-tack (removable) pressure sensitive adhesive, which is protected by an easy-release, moisture-resistant, lay-flat liner which resists curl. The liner is transparent matte PET and is scallop slit for easiest removal.</p> <p>INSIDE SECURITY STICK DECAL</p> <p>Size: 1.875 X 4.5</p> <p>Prints Both Sides</p> <p>1 Type / Consecutive Numbering On Front</p> <p>Front Prints In 4-Color Process, All Being The Same Picture</p> <p>Back Prints In 1-Color, All Being The Same</p> <p>Alien G Inlays (ALN-9645) Applied To The Back</p> <p>Encoding Of RFID Inlays</p> <p>Scalloped Liner</p> <p>T2 Systems Response: T2 Complies</p>
13.	<p>Adhesive - A crystal clear, non-yellowing, firm acrylic pressure sensitive .001 inches thick with high peel and good shear strength. The adhesive must be long aging giving a permanent bond to a flat or curved glass surface. The adhesive must be applied during the printing process to uncured sun resistant inks so that a portion of the ink pigments will migrate into the adhesive, effectively making the inks an integral part of both the base material and the adhesive to further prevent unauthorized transfer. The adhesive must have excellent initial tack and high solvent resistance. The adhesive is to be placed over the decal portion only.</p> <p>T2 's Response: T2 Complies</p>
14.	<p>Paper - The base material is to be an opaque white book, 50# (Basis 25 x 38-500), with optical character recognition quality surfaces. Normally invisible integral properties formulated in this paper include a chemical indicator for counterfeit protection and detection. Both sides readily accept all printing and writing with typewriter, ball point pen, ink pen and pencil.</p> <p>T2's Response: T2 Complies</p>
15.	<p>Liner - The protective liner, which is placed over the adhesive, is to be an easy release, silicone treated Kraft. Liner must have low elongation and high strength. Liner must be translucent so that all face printing, numbers and colors can be easily read without removing or lifting the liner. An opaque liner is not acceptable. The liner, as well as the base material, must not wrinkle in changing humidity and will stay flat at all times. Liner and adhesive must cover entire face of the decal portion. Liner and base material are to stay flat at all time and corners must not curl when liner is removed. The liner must be furnished cleanly slit for easy removal.</p> <p>T2 Systems Response: T2 Complies</p>

1.12 Optional RFID Permit Fulfillment Service

Item #	Questions and Requests
1.	<p>A service for relaying the permit sale information to the University's parking permit (RFID) provider. When customers purchase their permits online, that information is then batched at the end of the day. That information is sent to the University's third party permit provider who manufactures the permits and mails them direct from their factory.</p> <p>T2 Systems Response: With PermitDirect, from T2 Systems and Weldon, Williams & Lick (WW&L), you can make permit sales stress-free for you and your customers. PermitDirect is an easy permit sales and fulfillment solution that helps streamline the permit sales process.</p> <p>With Permit Direct, you can sell parking permits online and eliminate the hassle and risk associated with handling and fulfilling permits yourself. This no-hassle permit fulfillment service is integrated into your T2 Flex parking management system. It allows your customers to purchase permits from VCU's parking website - they aren't sent to someone else's online store.</p> <p>This enables you to follow your business rules and track every step of the process. With PermitDirect, you'll not only save time and effort, but you'll realize increased financial savings and additional revenue opportunities. WW&L takes care of fulfilling permit requests, reducing your on-site permit inventory. You can free your staff from folding paper and stuffing envelopes and focus their energy on more important tasks. In addition, you can offset all or part of your permit program expenses by adding a shipping and handling fee to the permit price.</p>

1.13 Event Parking Reservation and Transaction Processing System

Item #	Questions and Requests
1.	<p>Shall be web based software accessible through Internet Explorer, Firefox, Chrome, and Safari browsers.</p> <p>T2 Systems Response: T2's eBusiness supports the top four browsers (currently Internet Explorer, Chrome, Firefox, and Safari) and the two versions of those browsers that are publically available and in general release (not alpha/beta/preview/pre-release) at the time of the application's release. The eBusiness site is where your customers will go online to pre-pay for their parking space.</p>
2.	<p>Includes event and valet parking modules</p> <p>T2 Systems Response: The Flex Event module is included in the pricing proposal. As per the amendment, the valet module is not included in this RFP.</p>
3.	<p>Ability to operate in real time over cellular wireless and/or the University hosted wireless network (Wi-Fi)</p> <p>T2 Systems Response: T2 is proposing the Motorola MC75a handheld devices. These devices can operate in real time over cellular wireless and/or the University hosted wireless network (Wi-Fi.)</p>

4.	<p>Ability to communicate data to and from management and staff via handhelds</p> <p>T2 Systems Response: T2 Flex Event module allows for data to communicate to staff via handhelds. VCU can send event data to handheld computers in the field. Data can be searched independently by the user, to be used when selling parking on location when the event is taking place.</p>
5.	<p>Manage multiple events at multiple rates per event and more than one event at the same time utilizing user friendly interface</p> <p>T2 Systems Response: The PermitNow/Event handheld software is a comprehensive solution that remains easy for field personnel to use. Unique PermitNow attributes include the following:</p> <ul style="list-style-type: none"> ■ A simple user interface making it easy to use while promoting the longevity of the handheld computer. ■ Make use of multiple parking rates from the handheld. The parking rates are configured in T2 Flex and downloaded to the handheld devices for each event. ■ Users can use multiple payment methods, also configured within T2 Flex and downloaded to the handheld computers for each event.
6.	<p>Onsite payment for University event parking may occur 24 hours a day, 7 days a week.</p> <p>T2 Systems Response: T2 Complies. Event parking can be completed with staff present using handhelds to process payments, through automated pay stations, or using pre-printed barcodes with scanners provided with lane devices.</p>
7.	<p>Process vehicles quickly and cashier via handheld mobile units processes high volume of credit cards quickly</p> <p>T2 Systems Response: Cashiers will be able to process high volumes of credit card transient parking transactions via the handheld mobile units quickly.</p>
8.	<p>PCI Compliance Certification, and/or PA DSS application certification.</p> <p>T2 Systems Response: T2's credit card solution used with PermitNow is PA-DSS validated. If choosing to process credit cards only in online mode (real time) then no credit card data is ever stored. If choosing to allow acceptance of credit cards offline (batch) then credit card data is encrypted and stored in a PCI compliant manner. Encryption key management and IPG configurations are handled by the T2 Flex Credit Card Configuration Software, and encryption keys are managed by the software to support PA-DSS.</p>
9.	<p>Shall not store customer credit card numbers or transactions in the handhelds or system server .</p> <p>T2 Systems Response: T2's credit card solution used with PermitNow is PA-DSS validated. If choosing to process credit cards only in online mode (real time) then no credit card data is ever stored. If choosing to allow acceptance of credit cards offline (batch) then credit card data is encrypted and stored in a PCI compliant manner. Encryption key management and IPG configurations are handled by the T2 Flex Credit Card Configuration Software, and encryption keys are managed by the software to support PA-DSS.</p>

10.	<p>Shall accept payments by cash, real-time credit/ debit card transactions, pre-paid reservations, pre-purchased permits or season ticket parking passes</p> <p>T2 Systems Response: T2's Event management and PermitNow system accepts the payment methods mentioned above.</p>
11.	<p>Provides two way communication between the server/central office and the handhelds</p> <p>T2 Systems Response: Two way communications is available between the handhelds and Flex.</p>
12.	<p>Provides backup system in the event of wireless network failure</p> <p>T2 Systems Response: If the handheld units experience a network outage, revenues can still be collected and receipts can still be printed in offline mode. Once handheld communication is reestablished, transactions will automatically be updated to the server. Transactions are encrypted and held until the next communication session takes place.</p>
13.	<p>Provide management reports and automatic management updates</p> <p>T2 Systems Response: T2 Systems complies.</p>
14.	<p>Provides access remotely for managers located off-site</p> <p>T2 Systems Response: Remote access is provided for managers located off-site. Flex is a browser based application.</p>
15.	<p>Tickets issued onsite will be issued in sequential number order and on demand</p> <p>T2 Systems Response: The PermitNow software on the handhelds will issue tickets/permits in sequential number order and on demand.</p>
16.	<p>System shall use wireless mobile printers for printing paper tickets or receipts.</p> <p>T2 Systems Response: T2 Systems is proposing the Zebra iMX320 wireless printer. The Motorola MC75A will communicate with the printer via Bluetooth communication. The printer will print tickets and receipts.</p>
17.	<p>Provides a VIP module that allows for up to 500 names per event to be treated as VIP giving the parking attendant the ability to see the patron's name and communicate with the patron or other parking attendants</p> <p>T2 Systems Response: T2 Systems offers a reservation/VIP module for your VIP guests. VCU's parking attendant will perform a patron name search on the handheld and is able to view information on the handheld. VCU can configure reservations to be at no charge if applicable.</p>

18.	VIP module shall allow for VIP lists to be modified and updated in real-time by authorized personnel. T2 Systems Response: The Reservation/VIP module allows for lists to be updated in real time with an active internet connection.
19.	Provides handheld access to barrier gate control T2 Systems Response: T2 Systems complies. For facilities that are access controlled by Flex, handheld users can vend the lane gate from the handheld to allow a parker access to the event
20.	Prepare event cashier report by transaction, total revenue and activity per cashier with user specific data of time, date and location T2 Systems Response: T2 Flex will enable VCU to run many event reports. T2 can work with VCU to prepare these reports needed for event management.
21.	Communicate cellular wireless and/or Wi-Fi, but shall employ a back-up system that can be employed in the event the wireless network is unavailable. T2 Systems Response: T2 Systems is proposing the Motorola MC75A which can communicate via cellular and/or Wi-Fi. However, T2 strongly recommends using cellular communication. If the handheld units experience a network outage, revenues can still be collected and receipts can still be printed in offline mode. Once handheld communication is reestablished, transactions will automatically be updated to the server. Transactions are encrypted and held until the next communication session takes place.
22.	Shall be accessible to managers that are off-site and need to monitor operations remotely T2 Systems Response: Remote access is provided for managers located off-site. Flex is a browser based application. Managers can monitor events in Flex by running multiple reports and/or checking the event record itself.
23.	Shall integrate with the Pay on Entry equipment located at barrier gate parking lots and decks T2 Systems Response: T2 Complies

1.14 Handheld Citation Device

Item #	Questions and Requests
1.	The HH Citation Device shall be an all-in-one rugged handheld terminal equipped with a built-in thermal printer and near field communication (NFC) reader/writer designed for contactless smart cards and radio-frequency identification (RFID) tags. T2 Systems Response: T2 Systems is proposing the Motorola MC75A paired with the Zebra iMX320 wireless printer. T2 does not support software for near field communication for contactless smart cards and RFID tags. We recommend that barcodes are printed on permits for quick contactless data entry.

2.	<p>The HH Citation Device shall include a C-MOS Imager for scanning 1D and 2D symbologies, a magnetic card reader, and a color auto-focus digital camera.</p> <p>T2 Systems Response: The Motorola MC75A complies.</p>
3.	<p>The HH Citation Device must read data on ISO Tracks 1, 2, and 3 for VCU Cardholder data .</p> <p>T2 Systems Response: The Motorola MC75A complies.</p>
4.	<p>The RFID (NFC reader/writer) can be used to verify Permits issued within the system and quickly populate the data fields. Secure Access Module (SAM) slots are available on-board for use if even higher security is required.</p> <p>T2 Systems Response: T2 does not support software for near field communication for contactless smart cards and RFID tags. We recommend that barcodes are printed on permits for quick contactless data entry.</p>
5.	<p>A 3.7" VGA LCD with touch panel operator screen for high visibility in low light and high light, both indoors and outdoors and has intelligent power demand features.</p> <p>T2 Systems Response: The Motorola MC75A complies.</p>
6.	<p>The device is compliant with IP54 dustproof and splash proof standards, and will withstand drops of up to 1.5 meters, making it suitable for deployment in a wide variety of challenging environments.</p> <p>T2 Systems Response: The Motorola MC75A complies.</p>
7.	<p>The Handheld Citation Device shall provide the user the following at a minimum:</p> <ul style="list-style-type: none"> • Database File Storage cable of 20,000 students, 30,000 staff and 20,000 ticket records. • Quick download of Scofflaw Listing & Permit Database • Rechargeable lithium ion 7.4 V, 2000 mAh battery with lockable access door • Wi-Fi Enabled (Data push acceptable via Wi-Fi) • GPS Enabled • Bar Code Reader for QR and Code 39 • Operator Stylus attached by industrial cable • Windows Mobile 6.5 or higher Operating System • LCD Display for easy viewing • Internal black and white thermal Printer • Integral Camera to record violation associated to citation • Removable 4gb SD Card with lockable access door • Backlit keyboard • Heavy Duty Nylon Hardware and Carry Strapping <p>T2 Systems Response: The handheld device complies with the requirements stated above, however, does not have an internal black and white thermal printer. T2 Systems is proposing the Motorola MC75A paired with the Zebra iMX320 wireless printer.</p>

1.15 Reporting

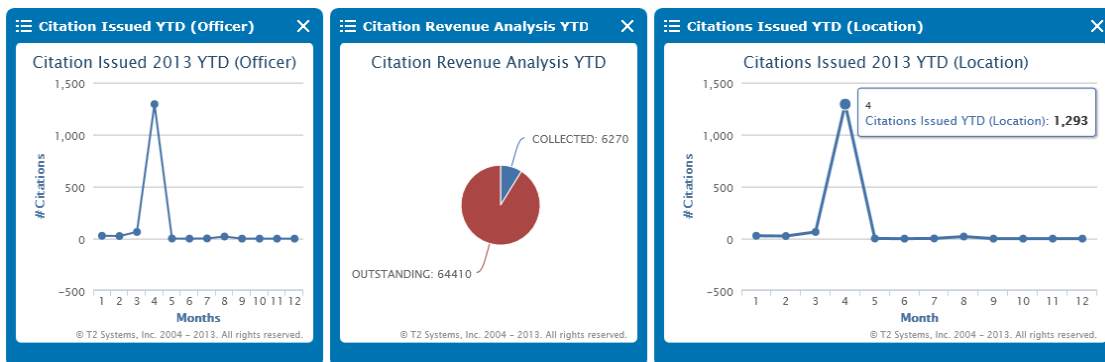
Item #	Questions and Requests
1.	<p>Ability to track by citation by various independent field criteria</p> <p>T2 Systems Response: T2 Flex offers the ability to track citation by various independent field criteria.</p>
2.	<p>Ability to track vehicle permits by various criteria</p> <p>T2 Systems Response: T2 Flex is able to track vehicle permits by various criteria determined by VCU.</p>
3.	<p>Ability to track regulation and enforcement by various criteria</p> <p>T2 Systems Response: VCU can track regulation and enforcement activity by various criteria in T2 Flex.</p>
4.	<p>Ability to produce Cashiering Reports including by not limited to: cashier closeout reports, transaction reports</p> <p>T2 Systems Response: T2 Flex offers a variety of Cashiering reports for VCU to utilize for reconciliation purposes. For example, cashier closeout reports and assorted transaction reports.</p>
5.	<p>Ability to produce Parking Services Administration Reports by day, month and year and by facility</p> <p>T2 Systems Response: T2's Flex application is able to produce Parking Services Administrative Reports by day, month, and year and can be distinguished by facility.</p>
6.	<p>Ability to produce Parking Services Notices and General Reports</p> <p>T2 Systems Response: T2 Flex has the ability to produce Parking Services Notices and General Reports.</p> <p>T2 Flex provides notification capabilities for overdue invoices (includes citations, permits, events, etc.), permit renewals, and hearing results. With T2 Flex, each letter is printed and/or e-mailed based on customer-defined criteria, e.g. days past citation issuance for a given license number, etc. T2 Flex provides the following letter types:</p> <ul style="list-style-type: none"> ■ Customer statement ■ Citation notice ■ Hearing notification/results notice <p>With T2 Flex, users can:</p> <ul style="list-style-type: none"> ■ Send notices and letters by e-mail or postal mail ■ Prioritize address types; both e-mail and mailing address types.

7.	Ability to create custom reports when needed against all parts of the database. T2 Systems Response: VCU will have the ability to create custom reports when needed.
8.	Ability to have reports scheduled to run at specific times. These reports should have the ability to be emailed to selected users. T2 Systems Response: The Flex Report Scheduler allows you to schedule reports to automatically run on at specific times. VCU can also choose to automatically email these reports to selected users.
9.	Ability to run real-time reports against parking lots/decks to gather spacing information. T2 Systems Response: T2 Complies
10.	Ability to schedule reports to run from within the system at a selected date and times and by facility. T2 Systems Response: The Flex Report Scheduler allows you to schedule reports to automatically run at a selected date and time and by facility.

Additional Information – T2 Flex Reports:

T2 Flex offers several reporting options. Each option allows for varying levels of flexibility in developing the report or searching for various criteria.

- **Report Manager** allows for the University to generate reports on demand or scheduled to run. Report manager comes with over 100 standard reports. An additional 400 reports are available through the report library. (Report library is available at no additional charge.) Ad-hoc (custom) reporting is also supported.
- **Query Manager** allows for a user to follow a wizard to create a query. Alternatively, users can overwrite the wizard with a SQL statement. Queries can be initiated on demand or scheduled to run. Queries are often used to populate the dashboard and export data to Banner, DMV agencies and other third party solutions.
- **Search** feature allows information to be located by searching on key fields.
- **Finder** tool allows a user to create mini queries with defined outputs. Mini queries can be saved and accessed later. This is a favorite of customer service representatives.
- The **Dashboard** functionality equips users with up to date, graphical widgets that enable quick and easy data analysis so parking operations can focus on driving performance, not measuring it.



1.16 Maintenance and Support Agreement

Item #	Questions and Requests
1.	<p>Shall cover each system purchased individually or collectively</p> <p>T2 Systems Response: T2 Complies</p>
2.	<p>Shall include all hardware / equipment</p> <p>T2 Systems Response: The handheld devices and printers proposed by T2 Systems include a (3) year comprehensive warranty. This warranty includes repairs or replacement of the hardware during the initial term. An extended warranty and maintenance beyond the initial term is available for an additional charge.</p> <p>The (3) year comprehensive warranty covers the following:</p> <ol style="list-style-type: none"> 1. (12) Motorola MC75A Handheld Devices 2. (12) Zebra iMX320 Printers <p>A copy of T2's Hardware Maintenance Agreement can be found in the appendix section of our response.</p>
3.	<p>Shall include software support through phone, email, chat, website and on-site technicians</p> <p>T2 Systems Response: VCU has the option to submit support cases three different ways:</p> <ol style="list-style-type: none"> 1) Initiating a Case from within T2 Flex - If you would like to initiate a case while you are in T2 Flex, you can click on the '!' button on the right side of the shortcut bar. This will open up a form for you to complete and submit. 2) Initiating a Case via the T2 Hub - A case can be initiated by logging into the T2 Hub, navigating to the Cases tab and clicking the Create New Case button. The T2 Hub is a conduit between you and T2 Systems. You will be able to view your account information, contact records, cases, ability to add new cases, find solutions, submit ideas for products and service, access the report library, and more! 3) Initiating a Case via the phone - Cases can be initiated by phone by calling T2 Support Services via a toll free number <p>There are three ways for a customer to communicate with a T2 Support Services representative regarding an open case: Case Comments (via the Hub), phone, and email reply to an open case that contains the reference ID at the bottom of the original email.</p> <p>There are two ways T2 Support Services representatives will communicate with a customer regarding an open case: phone and email.</p>
4.	<p>Shall include preventive maintenance such as troubleshooting, upgrades, training, performing back-ups and routine checks for maximum performance</p> <p>T2 Systems Response: When T2 hosts your application, you'll get faster deployment because we take care of server equipment, database maintenance and backups, scheduled virus scans and all system administration and maintenance. In addition, upgrades to the latest version of T2 Flex is automatic. Our staff handles all upgrades. With T2 hosting, it's all done for you by T2 experts – we simply inform you of when the upgrades will take place so you can be prepared.</p>

5.	Upgrades and preventative maintenance shall be handled remotely and after hours, so Parking & Transportation Management experiences little or no down time. T2 Systems Response: T2 Systems complies.
6.	Upgrades to software shall be provided to the University as soon as they become available for distribution. This should include Release Notes, Changes, Known Issues and Instructions. T2 Systems Response: T2 Systems complies.

1.17 Installation Requirements

Item #	Questions and Requests
1.	Contractor shall install a complete and fully functional system including hardware, software, network installation, all necessary cabling, all data conversion from the existing computerized system and all future updates to the system. Provide technical support for customization of reports and file formats and the conversion of existing data saved on the current system. T2 Systems Response: T2 Systems complies. Please see appendix for the Permit and Citation Software implementation process which includes implementation, interfaces, training, data conversion and support.

1.18 Data Migration

Item #	Questions and Requests												
1.	Contractor shall convert all required data in the University's Permit & Citation existing system. <table border="1"> <tr> <td>Current Database</td> <td>4.46 GB</td> </tr> <tr> <td>Customer Records</td> <td>89,142</td> </tr> <tr> <td>Vehicle Records</td> <td>167,866</td> </tr> <tr> <td>Addresses</td> <td>135,085</td> </tr> <tr> <td>Permits</td> <td>193,724</td> </tr> <tr> <td>Citations</td> <td>41,914</td> </tr> </table> T2 Systems Response: T2 Systems offers data conversion services and will convert all required data from the University's existing system. T2 will convert the past two years as part of our standard data conversion. There is an additional fee if VCU requires any records to be converted that are over two years old.	Current Database	4.46 GB	Customer Records	89,142	Vehicle Records	167,866	Addresses	135,085	Permits	193,724	Citations	41,914
Current Database	4.46 GB												
Customer Records	89,142												
Vehicle Records	167,866												
Addresses	135,085												
Permits	193,724												
Citations	41,914												

2.	<p>Contractor shall be responsible for the importing of existing data on the current system to the new system.</p> <p>T2 Systems Response: T2 Systems will import the existing data from VCU's current system to the Flex, the new system. We require the existing data to be in a specific format to assist in the data conversion process.</p>
3.	<p>Contractor shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system.</p> <p>T2 Systems Response: T2 Systems has a reliable data conversion process where your data conversion specialist will work closely with you on ensuring all your required data from your current system was exported to the new system, Flex.</p>
4.	<p>A reference file of the old system account numbers with a link to the new account numbers shall be available in the new system.</p> <p>T2 Systems Response: T2 Systems can create a custom field in Flex to reference the old system account number.</p>

Implementation Requirements

Item #	Questions and Requests
1.	<p>Vendor to provide qualified training staff members that shall assist, consult, install, train and oversee the system implementation simultaneously in multiple facilities.</p> <p>T2 Systems Response: T2 Systems complies. We will provide skilled T2 staff members that will oversee the implementation and assist, consult and train your staff members throughout this project.</p>
2.	<p>Provide a documented implementation plan with reasonable timeline.</p> <p>T2 Systems Response: An implementation plan will be provided if awarded the contract. A typical implementation is 90-120 days.</p>
3.	<p>Upon award of the RFP, signing of the contract and within ten (10) days of receipt of the University's purchase order, the successful Contractor shall provide a complete project timeline to the University's Parking & Transportation Management Department and the Purchasing Department.</p> <p>T2 Systems Response: T2 Systems complies.</p>
4.	<p>Provide integrated implementation process that incorporates on-line tools, on-site and web based technical services and on-site consultation.</p> <p>T2 Systems Response: Recorded Training Sessions The customer web site includes a library of recorded training sessions, covering many topics. Recorded sessions give you the flexibility to complete the training according to your schedule. All recorded materials are organized by levels of learning and follow a typical college curriculum approach. Introductory or 100 levels are intended for everyone and the 300 level advanced classes are designed for the more technical and advanced users.</p>

New customers going through implementation have access to all sessions required for implementation and those recommended based on their organization's business practices. All recorded sessions include applicable handouts and worksheets that go along with the session. All you do is choose the sessions you need with the click of your mouse!

Live Online Training Sessions

We understand that there is some training that is best done live, giving you the opportunity to communicate directly with a T2 instructor. That's why we will continue to offer live training sessions - through Webex - each month. Different topics will be posted on the T2 customer web site - all you have to do is sign-up for those that are of interest to you!

Training Workshops

We will continue to offer classroom-style workshops that cover a variety of topics related to T2 Flex, Crystal Reports and other areas of interest. Workshop announcements are on the customer web site and other customer communications such as the newsletter and e-mail announcements. Many of these classes are hands-on instruction with a low student-to-instructor ratio.

Training Sessions

To provide a custom training experience, we can conduct an online session just for your operation, or come on-site to provide training that's personalized to your needs. Sometimes there's nothing like having an instructor who can be with you in your real-world environment. This is a perfect solution if multiple staff members could benefit from in-depth training. A T2 instructor can work with each team member individually to help them learn how to use the T2 solution in their specific role.

T2 Professional Consulting

Our experienced training staff is also available to provide more customized consulting for your organization. We can conduct an in-depth review of current business practices, develop recommendations on changes to better align to your business goals, and develop tools and training programs to support these practices. If you would like to implement a more structured internal training program for staff, we can help you develop the internal training program that will meet your current and future training needs.

Documentation

At any stage of the implementation and beyond, you can have access to all of our documentation online. T2 Flex Online Help provides comprehensive step-by-step instructions for all of the procedures in T2 Flex and is accessible from any test or live T2 Flex database – just click the ? in the upper-right corner of the application. In addition, the T2 Knowledge Base (knowledgebase.t2systems.com) gives you access to the latest documentation on all T2 solutions that fall outside the realm of T2 Flex Online Help. The T2 Knowledge Base is a comprehensive online tool lets you search specific topics, print specific pages or customize and develop your own “user manual” in PDF format

5.

Ability to interface with existing University systems: Banner, CBORD and Blackboard, Wi-Fi and the other PARC systems.

T2 Systems Response: T2 offers interfaces with Banner, CBORD and Blackboard.

Banner

Banner is just one of several systems for which T2 has developed interfaces. T2 has worked with Banner for over 10 years and currently has some 70 customers whose parking systems interface with Banner, successfully sharing and making data available within both systems to help their entire

organization be more efficient. The benefit to T2 customers is that these interfaces allow parking offices to share data with Banner while still maintaining their own business rules, so they don't have to follow the rules or guidelines of other departments. Customers can also determine the frequency of data exchange, from daily to every minute. In other words, the parking office maintains control of its own operation.

T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (sending citations for student holds and receiving citation payment information from Banner or other system).

T2 Flex real-time integration with Banner supports:

- Demographics: Banner controls name, address, subclassification, and other demographic information unless a record is marked otherwise.
- Citations: Flex notifies Banner, and Banner responds accordingly.

Blackboard

T2 Flex integration with Blackboard lets students use their Blackboard one-cards as payment cards at:

- T2 Credit Card Entry/Exit Stations
- T2 Automated Pay Stations (both pay-on-foot and pay-in-lane)
- T2 Flex Cashier Stations
- T2 Flex Selection Basket

Refunds, returns, and other manual transactions on Blackboard one-cards must still be performed at the customer card office as usual for Blackboard. Blackboard integration lets ARC POS stations and the Flex Selection Basket take payment via Blackboard cards, but does not include refunding or refilling Blackboard cards.

Processing Blackboard one-card transactions starts like credit card transactions. However, unlike credit card processing, communication to the customer Blackboard Server is handled from the T2 Blackboard Server, not the Credit Card Web Server. The Credit Card Web Server merely relays transaction data to the T2 Blackboard Server.

CBORD

T2 Flex integration with CBORD lets students use their CBORD one-cards as payment cards at:

- T2 Credit Card Entry/Exit Stations
- T2 Automated Pay Stations (both pay-on-foot and pay-in-lane)
- T2 Flex Cashier Stations
- T2 Flex Selection Basket

Refunds, returns, and other transactions on CBORD one-cards must still be performed at the customer card office as usual for CBORD. CBORD integration lets ARC POS stations and the Flex Selection Basket take payment via CBORD cards, but does not include refunding or refilling CBORD cards.

6.	Assist in the development of reports prior to implementation. T2 Systems Response: Your implementation consultant will work with VCU staff on developing reports.
7.	Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up. T2 Systems Response: During implementation, an implementation consultant (IC) will be there with you during the launch of the new software. Your dedicated IC will train your staff, monitor the system, and address any issues.

Testing Requirements

Item #	Questions and Requests
1.	The system shall be tested thoroughly by the University prior to final acceptance. A minimum of four (4) weeks of testing shall be conducted. The University's current system and the new production system and new test system will run concurrently during the test period. In addition to the production system, a test system shall be provided to allow for testing of changes, upgrades, new maintenance to the system, while the current production system is still functioning and allowing for adequate time to test for any issues with the new system. T2 Systems Response: T2 Systems complies. System testing and a test system will be provided.

1.19 Training

Vendor to provide a comprehensive on-site training program as part of the proposal. The training program shall outline the expected number of personnel for this application and schedule proportionate to this installation.

T2 Systems Response: T2 has multiple components involved in our training program, based on the customer's desired experience for their operation team. Upon prospective award, T2 would be pleased to configure a training program adequate to accommodate VCU's parking management staff:

T2 has been evolving in the way we provide training to customers. As T2's suite of solutions continues to evolve, and as our customers' schedules and demands continue to be tasked, we knew we had to develop new ways to deliver training in a manner that meets their needs and their schedule – not ours.

The beginning of 2012 marked a shift in how T2 developed and delivered its training. T2 began focusing on development a library of recorded training sessions that are now on the T2 customer web site, as well as new workshops focused on handhelds and Crystal Reports. But these are just a few of the ways T2 is providing training. Following is a description of the different training offerings we now offer customers:

Recorded Training Sessions

The customer web site includes a library of recorded training sessions on a variety of topics and for different levels of users. All recorded sessions include applicable handouts and worksheets. Recorded sessions provide the flexibility to complete the training according to the customers' schedule. All the classes are web based and can

be accessed from any computer.

All recorded material is organized by levels of learning; Introductory or 100 levels are intended for everyone and 300 level Advanced classes are designed for the more technical and advanced users.

Live Group WebEx Training Sessions

We understand that some training is best done with a live instructor, giving customers the opportunity to dialog with a T2 instructor in a live setting. That is why we'll continue to offer live training sessions through Web-Ex each month. Different topics and costs will be posted on the T2 web site. The fee for these classes is \$195 per class. There is no limit to the number that can view the session.

One-on-One Personal WebEx Training Session

T2 offers the customer the ability to have an instructor work with them in their database using a WebEx solution. This is an extension of the Group WebEx classes listed above with the advantage that the class is only the customer and the instructor. This allows the customer to have items worked on as they relate to THEIR business practices and needs.

Training Workshops

T2 will continue to offer classroom-style workshops on a variety of topics related to T2 Flex, Crystal Reports, and other areas. We will continue to post workshops on the customer web site and promote via the customer newsletter, e-mails and the web site. Many of these classes are hands-on instruction with a low student-to-instructor ratio.

Private on-site Training Sessions

For a slightly higher fee than the 8 hours of a one-on-one session, a T2 Trainer can go to a customer site and provide training that is personalized to their organization's needs. Sometimes there is nothing like having an instructor that can be on site in a real-world environment. This is a perfect solution if multiple staff members could benefit from in-depth training.

T2 Professional Consulting Services

We are now available to provide more customized consulting services. For operations that may benefit from implementing a more structured internal training program for its staff, T2's Professional Consulting Services can help develop the internal training program that will meet current and future training needs. This is meant to achieve maximum utilization of the products and services they've purchased.

Item #	Questions and Requests
1.	<p>Provide eighty (80) hours of on-site instructions to VCU staff. Specific allocation of training time to be determined by VCU.</p> <p>T2 Systems Response: T2 Systems will provide 80 hours of on-site instructions to VCU staff.</p>
2.	<p>Instructions shall include but not be limited to, use of all Permit and Citations Software and products, use and operations of control of automatic report generation, production of "on demand" reports, specialized report creation, and methods of controlling revenue and auditing Permits and Citations with the system specified.</p> <p>T2 Systems Response: Instructions on the Permit and Citation Software will be accessible for VCU staff. It will include the items mentioned above.</p>

3.	<p>Include training and assistance to the VCU-OTS with interfacing the Parking Access & Revenue Control System with the VCU web site for real time activity posting, as well any other IT issue as it relates to the PARCS. Coordinate schedule with VCU to accommodate shift s schedules.</p> <p>T2 Systems Response: T2 understands and will accommodate</p>
4.	<p>Provide an additional sixteen (16) hours of on-site training, in any area, at VCU's request, during the first twelve (12) months after system start-up.</p> <p>T2 Systems Response: T2 Systems will provide an additional sixteen (16) hours of on-site training at VCU's request during the first twelve (12) months after system start-up.</p>
5.	<p>Provide an additional eight (8) hours of on-site training, in any area, at VCU's request, within twelve (12) months after system acceptance.</p> <p>T2 Systems Response: T2 Systems will provide an additional eight (8) hours of on-site training at VCU's request within twelve (12) months after system acceptance.</p>
6.	<p>Contractor shall provide (2) two complete product Service & Support technical manuals on all Permit and Citation products in print and a CD in PDF format.</p> <p>T2 Systems Response: T2 Systems provides VCU staff with multiple Service and Support technical manuals. T2 Flex has a help system, Flex Online Help, built-in to the product that gives you documentation and support at your fingertips. Users can access this tool throughout Flex. Another resource is our Knowledge Base. The T2 Knowledge Base contains information you would typically find in product manuals and user guides (installation, handhelds, release notes, etc). In a web format like this, the content is easier to navigate, search, share, and print or save as a PDF. The menu on the left is organized by topic and you can also use the easy search function to find what you need.</p>
7.	<p>Contractor to provide online webinars for all future training.</p> <p>T2 Systems Response: : T2 Systems provides online webinars for future training as well as recorded training.</p>
8.	<p>Contractor shall provide (2) two complete Permit & Citation Software Operating & Support technical manuals on all Software modules in print, and a CD with all manuals in PDF format.</p> <p>T2 Systems Response: T2 Systems provides VCU staff with multiple Service and Support technical manuals. T2 Flex has a help system, Flex Online Help, built-in to the product that gives you documentation and support at your fingertips. Users can access this tool throughout Flex. Another resource is our Knowledge Base. The T2 Knowledge Base contains information you would typically find in product manuals and user guides (installation, handhelds, release notes, etc). In a web format like this, the content is easier to navigate, search, share, and print or save as a PDF. The menu on the left is organized by topic and you can also use the easy search function to find what you need.</p>

1.20 Qualifications and Standards

Item #	Questions and Requests
1.	<p>Respondent shall provide, in writing, a statement that the Respondent has been regularly and continually engaged in business for a minimum three (3) years engaging in furnishing, delivering, servicing, repairing and installing, equipment, goods, or services required in this RFP.</p> <p>T2 Systems Response: T2 Systems has been regularly and continually providing parking management solutions and services for twenty years.</p>
2.	<p>Provide the names, qualifications, and experience of personnel proposed for the project. Resumes of staff to be assigned to the project may be used.</p> <p>T2 Systems Response: The project team is comprised of resources from both your organization and T2 that play a role in the project's success. There will be "primary" project team members – those resources actively working on the project, "secondary" project team members – those resources who will engage for specific activities and then bow out and "tertiary" project team members – those resources who need to remain informed.</p> <p>T2 project team members are located throughout the United States. Project team members are assigned when a upon project award. Team members are selected based on availability and project scope. Participation is determined by the scope of work.</p>
3.	<p>The Contractor must have a Class A Contractor's License with the appropriate specialty classifications issued by the Virginia State Board of Contractors. Submit a copy of your Class A Contractor's License.</p> <p>T2 Systems Response: T2 Complies and has attached documentation provided for meeting all criteria necessary for licensure from the VA State Board of Contractors. T2's proof of license can be located in the listings for the Virginia Department of Professional and Occupational Regulation (DPOR) website.</p>
4.	<p>A performance bond shall be submitted in the amount of one hundred (100 %) percent of the Contract price if requested by the University. This bond will be used to secure the successful completion of the project and payment of the Respondent's subcontractors should the successful Respondent default for any reason. Respondent required to provide a bond, shall submit a letter from a bonding agent licensed to do business in the State of Virginia stating that if the offering company is the successful Respondent, said bonding agent will furnish a 100% performance and payment bond covering and including products and service for the duration of the Contract period. Said bond shall be subject to the approval and acceptance of Virginia Commonwealth University. If requested, the bond shall be furnished to the University Purchasing Department within forty-eight (48) hours after receipt of the purchase order. The premium of the bond shall be paid by the successful Respondent.</p> <p>T2 Systems Response: T2 agrees to provide a performance bond if requested by the University Purchasing Department.</p>

PROPOSED PERSONNEL



Jody Backes is the Account Manager for Virginia. Once live on T2 Flex, the University will be transitioned to Account Management.

Jody is responsible for the success of T2 customers in the Northeast and Midwest. She is their main point-of-contact once the first T2 project is complete. She regularly talks to customers and visits them to better understand their operation and make sure they are informed about T2 solutions that can help them. She answers their questions about products and services, pricing, billing and POs, training, and User Group.

Jody has been in sales for over 30 years and in parking for six. Prior to T2 she worked at Resort Condominiums International and The Estridge Companies. She was the top salesperson for five consecutive years and the most consistent producer for all 10 years due to her credo “it’s about building relationships and taking care of people.”

Jody holds a BS in Finance from the University of Wisconsin – Madison.



Maggie Vercoe is the Director of Client Engagement. Maggie manages the Account Managers who are responsible for taking care of our customers' day-to-day needs. They provide information on new releases, products and services, provide assistance with questions and concerns, and work with our customers to make sure they are satisfied as a T2 customer. She also leads our "Customer Feel Good" cross-functional team that takes care of any customers who need extra attention or help on issue resolution.

Maggie has 16 years of professional experience, all of them in parking. As a student at the University of Wisconsin- Milwaukee, Maggie wanted to follow in her sister's footsteps and work in the parking office. There were a lot of positions for students, the staff was fun to work with, and it allowed her to study when things were slow. At UWM she implemented an entire system (software, hardware, training, and configuration) for an in-car meter program.

Maggie has held several different positions at T2 over the years. She was an Implementation Consultant and Trainer, and then managed the training and implementation team before starting in her current role. Maggie is a member of the T2 leadership team.

Maggie holds a BS in Sociology from University of Wisconsin- Milwaukee. She graduated with honors and was elected a member of the Sociological National Honors Society. She also received technical certifications in Crystal Reports and HTML.



Robin Fulk is the Implementation Services Manager. Robin manages the team of Implementation Consultants and provides oversight on projects implementing new T2 solutions in customers' operations.

Robin and her team get our customers up and running on T2 Solutions. They use business analysis tools to document and configure T2 solutions to customers' specific needs, document, conduct testing and deliver interfaces, and create reports and letters.

Robin has been with T2 since 2009 and has combined 15 years of technical support, implementation and training experience. She enjoys working with our customers and implementation teams to solve some really challenging problems.



Heather Scholz is the Professional Services Resource Manager.

Heather manages a team of Project Managers who work with customers to implement all aspects of their T2 solutions, from data conversion to software configuration, to hardware setup, to interfaces and integrations with third party solutions. In addition, Heather is responsible for all project resource assignments and serves as an escalation point for any project-related concerns. Heather brings over 15 years' experience in resource planning.

1.21 PCI Compliance/Safeguarding Obligations

Item #	Questions and Requests
1.	If the successful Contractor 's system accepts credit cards for products and services in this RFP utilizing the vendor's own merchant account, the successful Contractor system complies with all applicable Payment Card Industry Data Security Standards ("PCI Standards" and or PA DSS standards) and Contractor shall defend and hold The Board of Trustees of Virginia Commonwealth University, its designated representatives and their officers, agents and employees, harmless from all claims, liabilities, damages, or judgments involving a third party, including costs and attorney fees, which arise as a result of a Contractor's failure to meet any of its obligations under such PCI Standards. Contractor shall fully cooperate with VCU in all reasonable requests related to PCI Standards compliance. Contractor shall submit a copy of its annual certification of PCI or PA DSS compliance or

	<p>provide a notification of compliance as shown on the Visa’s Global Registry of Service Providers-PCI DSS Validated Entities compliance list.</p> <p>T2 Systems Response: While T2 does offer a fully compliant credit card solution; the T2 Flex Solutions we are proposing does not include the Credit Card Solution for accepting credit cards through Flex. Our eBusiness solution will utilize your selected Elavon Internet Payment Gateway (IPG) and process credit cards through the gateway rather than through the Flex application.</p>
2.	<p>To the extent the Contract which may be awarded by this RFP will allow the Contractor to have access to customer information, as that term is defined in 16 C.F.R. §314.2(b), which is required to be protected under the Gramm-Leach-Bliley Act (15 U.S.C. §6801-6809) as well as credit card information received in the course of business by the University, then the Contractor agrees to comply with and adhere to the terms and provisions described in General Terms and Conditions No. 33 which shall form a material part of the awarded Contract.</p> <p>T2 Systems Response: While T2 could not locate a copy of General Terms and Conditions No. 33 to which to agree; please understand that the Flex database is designed to contain parking related data only. During the implementation process, all data provided to T2 will be safeguarded by T2 to the same extent that T2 safeguards data relating to its own business and data. Ongoing, no readily viewable password or credit card data is stored as part of Flex processes. The University Parking Department will have control of what customer data is imported into or stored in Flex as part of its business processes and procedures. If successful in being awarded this contract, T2 will review General Terms and Conditions No. 33 during contract discussions and requests to negotiate if needed.</p>

1.22 Security/ Backup/ Recovery

Item #	Questions and Requests
1.	<p>Describe in detail all security features for each of the systems including cashier batch access, any and all audit trails provided, segregation of duties, file transfer process and access to lockout controls.</p> <p>T2 Systems Response: Each cashier will be assigned their own individual cash drawer session. Through user management settings, VCU can configure and control security settings for users using the cash drawer feature. VCU can restrict access for cashiers to only have access to a single cash drawer. Flex offers audit trails for every record. The audit trail tracks any activity relating to that record from financial modifications, editing the record, or processing a letter/email. The audit trail displays the date, time, description of activity and the user.</p> <p>Flex offers the ability for VCU to set up and maintain user privileges in Flex by job role, rather than by individual user. This will assist in segregating duties within Flex.</p> <p>T2 offers SFTP (Secure File Transfer Protocol) which provides an extra layer of security for FTP file transfers. SFTP is essentially a “wrapper” that encrypts the username, password, and content of the files. SFTP offers a very secure channel through which private data can be transmitted. T2 strongly encourages customers that need to transfer files to T2 to use SFTP rather than FTP.</p>

	<p>The T2 Flex task scheduler lets you create and schedule both custom and pre-defined tasks for automatic, unattended execution. Customers can also determine the frequency of data exchange, from daily to every minute.</p> <p>T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (sending citations for student holds and receiving citation payment information from Banner or other system).</p> <p>T2 Flex uses Oracle's security mechanisms, which are rated "virtually unbreakable" in the industry, to store password information. No one is allowed to access the system without a valid username and password. You can audit the user list frequently to disable accounts that are not in use. T2 Flex can: force a password to be a minimum number of characters, require mixed capitalization, require alphanumeric characters, require special characters, require the password to be unique from previous passwords, force password changes periodically, and even lock-out accounts after a configurable number of bad login attempts.</p>
2.	<p>Describe the system backup process. Can backups be completed in a dynamic mode so that the system can be operational 24 hours per day? What backup schedule is recommended? Describe the automated backup features that allow rapid and unattended system and data backup operations on a user-scheduled basis.</p> <p>T2 Systems Response:</p> <ol style="list-style-type: none"> 1) RAID (redundant array of independent disks). This is a live, automatic failover system. If a RAID disk fails, the customer will never notice and no data will be lost from the array. 2) Database archive logs are written directly to Datadomain (a de-duplication external disk storage). This protects the data in the event the database server or storage array fails between full backups. 3) Full Oracle RMAN "hot" (database is "on" and remains usable) backups are performed weekly and are written directly to Datadomain. 4) Backups and Archive logs on Datadomain are automatically replicated to an additional Datadomain located in our DR facility. 5) The archive logs and RMAN full backups are used for nightly differential & weekly full and are written to tape nightly in addition to being retained on Datadomain. 6) The tape backups are taken to a secure offsite storage facility
3.	<p>Describe the change logs for provider/user additions, deactivation, security, profile authorizations, etc.</p> <p>T2 Systems Response: User Management settings allow you to create and manage T2 Flex users and control every element of those users' access to T2 Flex by granting rights in addition to those of their roles. There is no limit to the number of users you can add and store here.</p> <p>From User Details you can:</p> <p>Clone - Use for convenient creation of user accounts with the same or similar privileges.</p> <p>Edit - Edit just about everything about the user.</p>

	<p>Delete - Makes the user inactive but does not remove the user from Flex. The User Management Activity History shows inserts, edits, and deletes to the user account as well as logins, failed logins, and logouts.</p>
4.	<p>Describe available options for single sign-on authentication of users in sufficient detail to ensure that the product's single sign-on solution provides an acceptable level of system security.</p> <p>T2 Systems Response: Authenticating for T2 eBusiness (customer facing portal) can be set up for single-sign on with CAS or Shibboleth. In Flex, authentication can be local or through LDAP or Active Directory. eBusiness and Flex will make use of the security mechanisms already put in place by your network administrators if single-sign on is chosen.</p>
5.	<p>Discuss data archiving and restoring from archive within all applications of the software. What are the capabilities in restoring from archive? What tools/media are used for archiving data?</p> <p>T2 Systems Response: Within the Flex application VCU has the option to change the status of records to historical. VCU administrators can create a task that looks at the age of individual records. Records that have passed an age threshold are considered historical. These records will not be displayed on content managers by default. There is a link under the content manager to display these historical records. For practical purposes, historical records are inactive records. Inactive records can be reversed and marked as active if needed.</p>
6.	<p>With regard to disaster recovery, please completely and comprehensively answer the following:</p>
7.	<p>Describe your proposed disaster recovery plan to safeguard source code and ensure that the proposed system is recoverable in the event of a disaster at the headquarters of your facility or that of any of your company's technology partners.</p> <p>T2 Systems Response: Please see appendix for out Disaster Recovery Plan document.</p>
8.	<p>Specifically describe what your disaster recovery plan would be for Parking Services to ensure that our data is safe and secure in the event of a disaster.</p> <p>T2 Systems Response: Please see appendix for out Disaster Recovery Plan document.</p>
9.	<p>Where is the location of your disaster recovery site, and what are your disaster recovery plans?</p> <p>T2 Systems Response: Please see appendix for out Disaster Recovery Plan document.</p>
10.	<p>Describe your database recovery processes.</p> <p>T2 Systems Response: Please see appendix for out Disaster Recovery Plan document.</p>

1.23 Credit Card Payments and Compliance Questions

Item #	Questions and Requests
1.	<p>Describe in detail and provide a flowchart of the entire credit card process including all third party appliances and software.</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>
2.	<p>Is the process for credit card processing PCI DSS and/or PA-DSS compliant? Describe your cardholder processing systems' Payment Card Industry (PCI) Payment Application.</p> <p>T2 Systems Response: The T2 credit card solution is PA-DSS validated and T2' hardware and hosting environment are PCI compliant.</p>
3.	<p>Does the implementation, including any required auxiliary servers, store the card holder PAN on VCU hosted servers for any length of time at any time during the credit card payment process?</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
4.	<p>Please provide information on where the University can verify your application and / or payment gateway compliance - on the PCI Standards validated payment applications list or on the Visa's Global Registry of Service Providers – PCI DSS Validated Entities compliance list?</p> <p>T2 Systems Response: The T2 credit card solution is PA-DSS validated and T2' hardware and hosting environment are PCI compliant.</p> <p><i>Proof of T2's PCI Compliance:</i> http://usa.visa.com/merchants/risk_management/cisp_service_providers.html</p> <p><i>Proof of T2's PA-DSS validation:</i> https://www.pcisecuritystandards.org/approved_companies_providers/vpa_agreement.php</p>
5.	<p>For implementation of your solution that includes VCU hosted payment card processing solutions, does your application store card holder PAN on disk located on our network at any time or do you process and transmit cardholder data to a payment gateway?</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>

6.	<p>Does your VCU hosted payment card processing solution interface with any other system that would also be hosted on the VCU network that stores cardholder PAN on disk located on our VCU network at any time?</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
7.	<p>For implementation of your solution that includes VCU hosted payment card processing, please provide a detailed diagram that includes the flow of cardholder data from the user entry through your system, out to the payment gateway, and merchant services processor for verification, and back to your application.</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>
8.	<p>For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. Respondents must specify how the application will meet PCI compliance for payments.</p> <p>T2 Systems Response: : Mobile device payments will not take place on the PARCS network</p>
9.	<p>Describe in detail and provide a flowchart on how the credit card payment is relayed in the system that you are proposing from the handheld devices in remote locations to the PARC system</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>

Training Program Questions

Item #	Questions and Requests
1.	<p>List the number of University employees you propose to train and indicate if training proposed will be on-site at the University.</p> <p>T2 Systems Response: T2 Systems will work with the University to determine the number of employees and specific classes will be done on-site or thru a Web-ex. T2 has found high user adoption with smaller class sizes. This allows the T2 Implementation Consultant to provide personalized training to each trainee. T2 staff will work with specific areas such as Enforcement, Administrative, and Cashiers. Each specific area will have their own agenda and possible some cross training as well.</p>
2.	<p>List any resources you would require the University to provide in order to conduct training on campus, including extra software, licenses, etc.</p> <p>T2 Systems Response: T2 Systems training occurs in a lab where each trainee has a computer for a hand on approach. Your instructor will contact you for details on any other resources needed.</p>

3.	<p>Describe your training methodology for system administrators, approvers, and users for both the initial implementation and ongoing training.</p> <p>T2 Systems Response: Training on the application is critical to the success of user adoption. The University will have access to recorded training throughout the project. Recorded training allows the University to become familiar with T2 Flex. Prior to going live, T2 will perform live personalized training. A training curriculum is presented to the University for approval. Written tests can be performed to ensure trainees are learning the material presented. T2 will remain on location for go-live. This ensures questions are answered immediately regarding reservation functionality.</p> <p>On-Going Support: Once live, the University has access to training, documentation, and support resources. We understand there are multiple learning styles. Learning styles can be visual, audio and tactile. Our training and support program is built around the different learning styles. This ensures everyone has the opportunity to stay on top of T2 Flex functionality.</p>
4.	<p>Provide a list of training centers.</p> <p>T2 Systems Response: Once live, T2 does offer off-site training at our corporate office in Indiana and the day before our User Group Conference. Off-Site training topics can include but not limited to Report Writing, Permit Configuration, and General Flex Overview for new users. Additional fees apply.</p>
5.	<p>Provide a list of training agendas.</p> <p>T2 Systems Response: Below is a sample of training agenda topics. VCU will be presented with an agenda for approval.</p> <ul style="list-style-type: none"> ■ Permits and Enforcement ■ Customers Manager ■ Vehicles Manager ■ Citations Manager ■ Permits Manager ■ Cash Drawer and Financials ■ Appeals Manager ■ Boot/Tow Manager ■ Advanced Processes (Managerial Functions) ■ Handheld Citation Issuance and Communications
6.	<p>Will training materials customized for the University be provided? Can the materials be copied for use by the University personnel subsequent to the initial training?</p> <p>T2 Systems Response: VCU will be presented with customized training materials and agenda. These materials can be used by the University before, during and after the initial training.</p>

7.	<p>Can other system manuals and documentation be copied for use by University personnel?</p> <p>T2 Systems Response: At any stage of the implementation and beyond, you can have access to all of our documentation online. T2 Flex Online Help provides comprehensive step-by-step instructions for all of the procedures in T2 Flex and is accessible from any test or live T2 Flex database –just click the ? in the upper-right corner of the application. In addition, the T2 Knowledge Base (knowledgebase.t2systems.com) gives you access to the latest documentation on all T2 solutions that fall outside the realm of T2 Flex Online Help. The T2 Knowledge Base is a comprehensive online tool lets you search specific topics, print specific pages or customize and develop your own “user manual” in PDF format</p>
8.	<p>Is additional on-line training available at the customer’s convenience or through webinars?</p> <p>T2 Systems Response: Customers have access to a calendar to view upcoming live remote trainings. Training options include, but are not limited to:</p> <ul style="list-style-type: none"> ■ Recorded Training Sessions (available at any time) ■ Live Online Training Sessions (check training calendar for times) ■ Training Workshops (classroom style workshops) ■ Private Training ■ T2 Professional Consulting ■ T2 Certification (become certified in T2 Flex) ■ Webinars
9.	<p>Provide your training schedule</p> <p>T2 Systems Response: VCU will be presented with the implementation training schedule during the project phase. Other training schedules such as webinars or training workshops can be found on our website.</p>
10.	<p>Describe on-going training programs offered after conclusion of the implementation and/or acceptance period (e.g., for staff re-training after upgrades/enhancements or other system changes). Specify when costs for additional training are included in the annual maintenance and support fees and when they are not.</p> <p>T2 Systems Response: Recorded Training Sessions The customer web site includes a library of recorded training sessions, covering many topics. Recorded sessions give you the flexibility to complete the training according to your schedule. All recorded materials are organized by levels of learning and follow a typical college curriculum approach. Introductory or 100 levels are intended for everyone and the 300 level advanced classes are designed for the more technical and advanced users.</p> <p>New customers going through implementation have access to all sessions required for implementation and those recommended based on their organization's business practices. All recorded sessions include applicable handouts and worksheets that go along with the session. All you do is choose the sessions you need with the click of your mouse!</p>

Live Online Training Sessions

We understand that there is some training that is best done live, giving you the opportunity to communicate directly with a T2 instructor. That's why we will continue to offer live training sessions - through Webex - each month. Different topics will be posted on the T2 customer web site - all you have to do is sign-up for those that are of interest to you!

Training Workshops

We will continue to offer classroom-style workshops that cover a variety of topics related to T2 Flex, Crystal Reports and other areas of interest. Workshop announcements are on the customer web site and other customer communications such as the newsletter and e-mail announcements. Many of these classes are hands-on instruction with a low student-to-instructor ratio. Additional fees apply.

Training Sessions

To provide a custom training experience, we can conduct an online session just for your operation, or come on-site to provide training that's personalized to your needs. Sometimes there's nothing like having an instructor who can be with you in your real-world environment. This is a perfect solution if multiple staff members could benefit from in-depth training. A T2 instructor can work with each team member individually to help them learn how to use the T2 solution in their specific role. Additional fees apply.

T2 Professional Consulting

Our experienced training staff is also available to provide more customized consulting for your organization. We can conduct an in-depth review of current business practices, develop recommendations on changes to better align to your business goals, and develop tools and training programs to support these practices. If you would like to implement a more structured internal training program for staff, we can help you develop the internal training program that will meet your current and future training needs.

Documentation

At any stage of the implementation and beyond, you can have access to all of our documentation online. T2 Flex Online Help provides comprehensive step-by-step instructions for all of the procedures in T2 Flex and is accessible from any test or live T2 Flex database – just click the ? in the upper-right corner of the application. In addition, the T2 Knowledge Base (knowledgebase.t2systems.com) gives you access to the latest documentation on all T2 solutions that fall outside the realm of T2 Flex Online Help. The T2 Knowledge Base is a comprehensive online tool lets you search specific topics, print specific pages or customize and develop your own “user manual” in PDF format

Support and Maintenance Questions

Item #	Questions and Requests
1.	<p>Provide a 2 YEAR WARRANTY PERIOD along with a precise description of support/maintenance program. Include annual cost for the five (5) years following for all software and hardware including:</p> <ul style="list-style-type: none">Hours of Support – On Weekdays? On Weekends? On Holidays? 24/7? <p>T2 Systems Response: Support is available Monday – Friday from 8am to 8pm Eastern. After hour support is available for an additional charge. When a call is placed after hours, the caller indicates whether the call is an emergency. When a call is designated as an emergency, a support representative is paged and will return the call within 30 minutes. If the call is not considered an emergency, the caller can leave a message and their call will be returned when Support opens. There is an additional charge for after hour support.</p> <ul style="list-style-type: none">Methods Of Support – E.G., E-Mail, Phone, On-Line Chat, Remote Access, In-Person <p>T2 Systems Response: VCU has the option to submit support cases three different ways:</p> <ol style="list-style-type: none">7) Initiating a Case from within T2 Flex - If you would like to initiate a case while you are in T2 Flex, you can click on the '!' button on the right side of the shortcut bar. This will open up a form for you to complete and submit.8) Initiating a Case via the T2 Hub - A case can be initiated by logging into the T2 Hub, navigating to the Cases tab and clicking the Create New Case button. The T2 Hub is a conduit between you and T2 Systems. You will be able to view your account information, contact records, cases, ability to add new cases, find solutions, submit ideas for products and service, access the report library, and more!9) Initiating a Case via the phone - Cases can be initiated by phone by calling T2 Support Services via a toll free number <p>There are three ways for a customer to communicate with a T2 Support Services representative regarding an open case: Case Comments (via the Hub), phone, and email reply to an open case that contains the reference ID at the bottom of the original email.</p> <p>There are two ways T2 Support Services representatives will communicate with a customer regarding an open case: phone and email.</p>

- Severity/Priority Classification – I.E., Severity Levels Of Problems/Issues

T2 Systems Response:

Severity Level	Impact	Examples	Preferred Method of Communication	Frequency of Communication	Resolution Target
Low (4)	The problem requires technical assistance but does not impact the Customer's business	Report, Query, or Letter request. Product information requests Web site login requests. RMA requests. Application installs All non-production ("Test") service/solution issues	Log Case Through T2 Hub	2 Business Days	5 Business Days and up to 10 days for reports
Medium (3)	Customer operations are disrupted, but a work-around has been identified. Minimal impact to Customer's business	Inconsistent connectivity for T2 hosted Production Flex, eBusiness, ARC; is continuing to lose connection to database. ARC abnormally slow.	Log Case Through T2 Hub	1 Business Day	2 Business Days
High (2)	Customer's business operation is impacted but continues to operate, perhaps in a performance-impacted manner. May result in loss of	Production Flex, ARC, eBusiness, PermitNow is slow. Reports of processes and procedures not working as expected, i.e. tasks, reports, queries, letters.	Log Case Through T2 Hub	2 Business Hours	4 Business Hours
Critical (1)	Customer's business use of the software is non-functional as a result of a software or service error. Certain loss of revenue as a result	Production Flex, ARC, eBusiness, PermitNow is down, totally inoperable.	Support Emergency Phone Line	30 Minutes	1 Hour

- Response Times – During Regular Business Hours, During Off Hours, On Weekends

T2 Systems Response: Please see chart above, column titled 'resolution target'

- Problem Escalation/Triage And Issue Resolution Procedures

T2 Systems Response: Support services have internal escalation and resolution procedures depending on the support needed. Please see requirement #3 within this section.

- Customer Responsibilities/Duties

T2 Systems Response: We encourage customers to submit, view and manage cases on the T2 Hub. Submitting cases on the T2 Hub will guide you on what information you need to submit.

2.	<p>If not included above, which of the following support features are available:</p> <ul style="list-style-type: none"> • Toll-Free Hotline • Remote Monitoring • Remote Diagnostics • Training Tutorials • Web-Based Support Tracking <p>T2 Systems Response: T2 Systems offers all of the above to hosted customers.</p>
3.	<p>Are there multiple levels of support available? (5x8, 7x8, 7x24, etc.) Describe the support available for the proposed solution. What is the model of support recommended by your company for the University?</p> <p>T2 Systems Response:</p> <p>First Tier Support First tier support is handled by the Product Support (PS) team. All cases submitted to Support Services will be handled here first. Product Support will escalate cases which cannot be handled within a predefined period of time, or which are outside of the level of expertise held in the Product Support team. The Product Support team is organized to put to use a great breadth of knowledge and skill.</p> <p>Second Tier Support Second tier support handled predominantly by our Technical Support (TS) team. When necessary, T2 Support Services staff may call upon members of our Web Development (WD) and Data Services (DS) teams from the Delivery Services department to assist with some issues. All cases escalated by PS will be sent to one of these teams. The second tier teams are organized to have much deeper knowledge of the more technical elements of our solutions. It is important to note that while the individuals making up these teams have deeper knowledge of certain elements of our solutions, these individuals don't have the same breadth as our PS team members. Second tier support will escalate cases which are unable to be resolved to third tier support.</p> <p>Third Tier Support Third tier support is divided into two groups: Enterprise Support and Information Technology (IT). Enterprise Support is a developer level position within Support Services with access to code and development skill. IT will be involved in any escalated cases which are affecting or affected by the T2 hosting environment. Third tier support will escalate all cases which cannot be resolved to the Product Development department.</p>

Include a chart of the escalation procedures for continuing or critical issues. Issues should not remain unresolved at Tier 1 more than six (6) hours and should not remain unresolved at Tier 2 more than three (3) days.

T2 Systems Response:

Severity Level	Impact	Examples	Preferred Method of Communication	Frequency of Communication	Resolution Target
Low (4)	The problem requires technical assistance but does not impact the Customer's business	Report, Query, or Letter request. Product information requests Web site login requests. RMA requests. Application installs All non-production ("Test") service/solution issues	Log Case Through T2 Hub	2 Business Days	5 Business Days and up to 10 days for reports
Medium (3)	Customer operations are disrupted, but a work-around has been identified. Minimal impact to Customer's business	Inconsistent connectivity for T2 hosted Production Flex, eBusiness, ARC; is continuing to lose connection to database. ARC abnormally slow.	Log Case Through T2 Hub	1 Business Day	2 Business Days
High (2)	Customer's business operation is impacted but continues to operate, perhaps in a performance-impacted manner. May result in loss of	Production Flex, ARC, eBusiness, PermitNow is slow. Reports of processes and procedures not working as expected, i.e. tasks, reports, queries, letters.	Log Case Through T2 Hub	2 Business Hours	4 Business Hours
Critical (1)	Customer's business use of the software is non-functional as a result of a software or service error. Certain loss of revenue as a result	Production Flex, ARC, eBusiness, PermitNow is down, totally inoperable.	Support Emergency Phone Line	30 Minutes	1 Hour

4.

What are your hours of operation for support during Central Standard Time weekdays, weekends and holidays?

T2 Systems Response: Support is available Monday – Friday from 8am to 8pm Eastern. After hour support is available for an additional charge. When a call is placed after hours, the caller indicates whether the call is an emergency. When a call is designated as an emergency, a support representative is paged and will return the call within 30 minutes. If the call is not considered an emergency, the caller can leave a message and their call will be returned when Support opens. There is an additional charge for after hour support.

5.

6.	<p>What are your guaranteed and documented response times for support turnaround?</p> <p>T2 Systems Response: Please see the chart provided in item #4, above</p>
7.	<p>Will the University be assigned dedicated support personnel familiar with our requirements and installation?</p> <p>T2 Systems Response: T2 cannot guarantee support personnel that are familiar with VCU's requirements and installation, but will make every effort to document VCU's detail for our team's knowledge base. However all our support personnel are familiar with university requirements and have past experience with university customers.</p>
8.	<p>How many versions of your software are you currently supporting?</p> <p>T2 Systems Response: T2 Flex is currently in version 7.6, with an average of 2 releases per calendar year. T2 requires all Flex instances hosted by T2 for either production or for testing to be on the current or next most recently released T2 Flex application software version.</p>
9.	<p>Are there limitations to the number of University staff who can contact technical support? If so, how many University staff can contact support? Who do you recommend be University contacts?</p> <p>T2 Systems Response: There are no limitations to the number of VCU staff who can contact technical support. T2 recommends VCU have a limited number of VCU staff in charge of support cases. We recommend a dedicated Flex project manager to monitor support cases. This will help with any confusion and a seamless resolution to your support cases.</p>
10.	<p>If not included above, describe problem reporting software and tools. Are they available via the Internet? Can a list of outstanding problems and enhancements by client be viewed on-line and downloaded?</p> <p>T2 Systems Response: The T2 Hub is a conduit between you and T2 Systems. You will be able to view your account information, contact records, cases, ability to add new cases, find solutions, submit ideas for products and service, access the report library, and more! The solutions are a resource for the T2 Community. You will find there are different solution categories and sub categories. The design of solutions is setup to allow you to insert a freeform search to find solutions of interest, or browse through different categories. For many issues or requests customers submit via cases, can be resolved with a solution. It is recommended to search for a solution to your issue, question, or request before submitting a case.</p>
11.	<p>Describe the technical support staffing and systems, including specifics about the following:</p> <ul style="list-style-type: none"> • Skill sets of support personnel, including background, training, experience/qualifications, and average tenure with the company • Organization and structure of support services/resources • Number of support resources located at corporate headquarters, in field offices, and/or in other locations • Specific locations where support personnel for Parking Services would be located

	<p>T2 Systems Response: Our Product support service team is backed by years of parking expertise. The team is required to go through Flex certification training and pass specific qualifications. Maggie Vercoe, Director of Client Engagement, leads the Product Support Team which consists of seven members. This is just your Tier 1 support staff. You can read more about Maggie in Section 1.20. Product Support team members are located at our corporate headquarters in Indianapolis and throughout the United States. VCU can interact with any one of our Product Support Specialists located throughout the United States.</p>
12.	<p>Describe the support process for evaluating and fixing “bugs” or problems in system. Also, how are problem analysis and resolution coordinated with the contractors of systems with which the proposed PARC system interfaces and other 3rd party software products?</p> <p>T2 Systems Response: While T2 has provided proposal information for the respective components included for VCU’s desired solution, our firm wishes to provide a unified systems with T2 factory direct support/maintenance. While there will be availability to utilize the remote T2 support team, we strongly believe an onsite presence will provide the most efficient resolution for a solution the size of VCU’s</p>
13.	<p>Describe procedures to be employed in the event of unexpected system downtime.</p> <p>T2 Systems Response: T2 has a SLA of 99.0%. Uptime for the past 12 months has been at 99.980%.</p>
14.	<p>What is the range and average system downtime (both scheduled & unscheduled) for your clients’ systems?</p> <p>T2 Systems Response: The T2 Hosting Environment has three "types" of planned downtime windows for different purposes. It is very important to note that these are windows of possible scheduled downtime. In other words, these are times that are being reserved for maintenance. T2 never uses them all. Details of each type are listed below.</p> <ul style="list-style-type: none"> ■ Projects: Monday mornings at 12:01 AM until 2:00 AM Eastern. This is time T2 reserves for big projects like upgrading storage, servers, or networking equipment. On average, T2 uses around one window a month for ongoing equipment upgrades. During these windows, most or all of our systems are often up and fully functional. However, as a matter of protection for our customers, we schedule any work that has even a small potential for downtime during these windows. ■ Urgent Fixes: Every day from 5:00 AM until 6:00 AM Eastern. This is the time T2 reserves for urgent work usually related to the repair of failing components or the implementation of critical security patches (like critical/urgent Microsoft and Cisco updates). On average, T2 uses about one of these a week, but the systems are rarely down for the entire hour. Usually it is only minutes while technicians reboot servers to apply patches. ■ Backups: Every Saturday morning from 2:00 AM until about 10:00 AM Eastern. This is the time where T2 does cold backups of each hosted database. Each customer is down for only the time it takes to back up their database (an average of around 20 minutes). The backup times are mapped to the time zones of the customers. For example, the backups of databases on the west coast (e.g. California and Hawaii) take place later in the window

	<p>because it is still the early morning for those customers.</p> <p>On occasion, T2 has a need to create a downtime window outside of one of the planned windows described above. Notification of planned down-time for maintenance will be delivered via e-mail to the designated customer(s) or group(s) at least 2 days in advance of the maintenance. The Notification includes the planned time of the disruption and the expected hour that the system will be restored to full functionality. The notification will also include a summary of the actions being taken to address the issue.</p>
15.	<p>Describe the support procedures for the following, both during the acceptance testing period and after the system is in production:</p> <ul style="list-style-type: none"> • Tracking of problem reports • User notification of problems, including detailed descriptions of actions required for resolution • Tracking of all changes/modification/customizations made to the system <p>T2 Systems Response: VCU is provided a Project Issue log that will be used during their user acceptance testing. This document will be shared with the project team for resolution and clarification of items listed.</p>

Installation / Testing / Implementation Questions

Item #	Questions and Requests
1.	<p>Does the product license allow for the installation of test and development instances without additional cost?</p> <p>T2 Systems Response: VCU will have a test instance during the implementation project phase. After the project is closed, VCU has the option of keeping the test instance for an additional cost.</p>
2.	<p>Describe your installation, testing and implementation process and a detailed timeline for the project including:</p> <ul style="list-style-type: none"> • Pre-implementation planning, e.g., workflow analysis • Hardware preparation/configuration, installation, & testing • Software installation & testing • Interfaces development, implementation, & testing • Data migration/conversion from our current Permit Parking system • Training (cover more thoroughly in Section X) • Customization of screens/templates/reports/forms/clinical content/etc. • Go-Live and post Go-Live follow-up <p>T2 Systems Response: Please see the appendix for the T2 Project Implementation document.</p>

3.	<p>Provide a copy of an example of the completed documentation history of actions performed, issues identified, resolution and acceptance of an installation at a site comparable to VCU.</p> <p>T2 Systems Response: If awarded this contract T2 will provide an example of documentation stating history of actions performed, issues identified, resolution, and acceptance of an installation at a site comparable to VCU.</p>																																																									
4.	<p>Provide a sample implementation checklist.</p> <p>T2 Systems Response:</p> <table border="1"> <thead> <tr> <th>#</th> <th>Task Name</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Project Management Initiation</td> <td></td> </tr> <tr> <td>2</td> <td>Sales to Delivery Service Transition Complete</td> <td>1 day</td> </tr> <tr> <td>3</td> <td>Perform Intro Call</td> <td>1 day</td> </tr> <tr> <td>4</td> <td>Schedule and Conduct Project Kickoff Call</td> <td>3 days</td> </tr> <tr> <td>5</td> <td>Project Administration</td> <td></td> </tr> <tr> <td>6</td> <td>Site Visit to review scope and business requirements</td> <td>2 days</td> </tr> <tr> <td>7</td> <td>Project Management Administration</td> <td>100 days</td> </tr> <tr> <td>8</td> <td>Handheld Printer Fulfillment</td> <td>30 days</td> </tr> <tr> <td>9</td> <td>Data Conversion (Includes 2 samples prior to go-live.)</td> <td>60 days</td> </tr> <tr> <td>10</td> <td>Interface with third party applications</td> <td>TBD</td> </tr> <tr> <td>11</td> <td>Ticket Stock Fulfillment (If stock purchased from T2.)</td> <td>33 days</td> </tr> <tr> <td>12</td> <td>T2 Flex Permit and Enforcement Plus</td> <td></td> </tr> <tr> <td>13</td> <td>Flex Infrastructure (Database setup in T2 hosting environment.)</td> <td>2 days</td> </tr> <tr> <td>14</td> <td>Create Functional Requirements</td> <td>15 days</td> </tr> <tr> <td>15</td> <td>T2 Flex Configuration</td> <td>10 days</td> </tr> <tr> <td>16</td> <td>Personalized remote training on T2 Flex</td> <td>2 days</td> </tr> <tr> <td>17</td> <td>Weekly Working Sessions</td> <td>10 to 20 sessions</td> </tr> <tr> <td>18</td> <td>T2 Flex eBusiness Solutions</td> <td></td> </tr> </tbody> </table>	#	Task Name	Duration	1	Project Management Initiation		2	Sales to Delivery Service Transition Complete	1 day	3	Perform Intro Call	1 day	4	Schedule and Conduct Project Kickoff Call	3 days	5	Project Administration		6	Site Visit to review scope and business requirements	2 days	7	Project Management Administration	100 days	8	Handheld Printer Fulfillment	30 days	9	Data Conversion (Includes 2 samples prior to go-live.)	60 days	10	Interface with third party applications	TBD	11	Ticket Stock Fulfillment (If stock purchased from T2.)	33 days	12	T2 Flex Permit and Enforcement Plus		13	Flex Infrastructure (Database setup in T2 hosting environment.)	2 days	14	Create Functional Requirements	15 days	15	T2 Flex Configuration	10 days	16	Personalized remote training on T2 Flex	2 days	17	Weekly Working Sessions	10 to 20 sessions	18	T2 Flex eBusiness Solutions	
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	<p>19 Create Functional Requirements</p> <p>20 Establish connection between eBusiness solutions and IPG. 20 days</p> <p>21 Authentication integration 10 days</p> <p>22 T2 Development and Testing of all eBusiness solutions. 30 days</p> <p>23 Weekly Working Sessions 5 to 10 sessions</p> <p>24 Go-Live</p> <p>25 T2 on-site to perform training 1 day</p> <p>26 T2 on-site for last minute configuration changes and go-live 3 days</p> <p>27 Project Close-Out</p> <p>28 Monitor Performance 14 days</p> <p>29 Transition to T2 Support Services and Account Management 2 days</p>
5.	<p>What is the method for assigning implementation consultants to a customer account?</p> <p>T2 Systems Response: Our Professional Resource Manager will assign your implementation consultant. Our manager will look at the project deliverables and the ICs workload to determine who the best fit for your project is.</p>
6.	<p>Describe the testing database available in your systems? Can new software be loaded and tested in the testing database before it is loaded into the live production system?</p> <p>T2 Systems Response: T2 Systems will create a training/test database for VCU. The test database will be a point-in-time copy of your T2 hosted database. This test database can be used to load and test new software and procedures.</p>
7.	<p>Describe the capability of the proposed system to perform the following functions, both during the acceptance testing period and after the system is in production:</p>
8.	<p>Tracking of problem reports, client access to such reports, detail level of actions required for resolution</p> <p>T2 Systems Response: VCU is provided a Project Issue log that will be used during their user acceptance testing. This document will be shared with the project team for resolution and clarification of items listed.</p>
9.	<p>Tracking of all changes/modifications/customizations, client access to such reports, detail level of actions required for resolution.</p> <p>T2 Systems Response: VCU is provided a Project Issue log that will be used during their user acceptance testing. This document will be shared with the project team for resolution and clarification of items listed.</p>

10.	<p>Describe client workstation virtualization implementation.</p> <p>T2 Systems Response: Please see the T2 Flex System Requirements and Network Architecture Overview document in the appendix .The recommended T2 Flex desktop/workstations requirements for end-users is as follows:</p> <ul style="list-style-type: none"> ■ RAM : At least 1 GB ■ Storage: 5 GB free space on local hard drive ■ Monitor resolution: 1024x768 ■ Operating System: Windows 7, Windows 8, Professional edition or higher ■ Internet Explorer: v10-11 ■ Adobe Reader
11.	<p>Within what timeframe after contract signing can your staff/resources begin working on the project?</p> <p>T2 Systems Response: Once the contract is signed, resources are assigned within the next few business days. Your Project Manager will contact you to introduce the team and explain the next steps.</p>
12.	<p>Describe the plan for contractor staffing and time commitment on-site at Parking Services during the implementation period.</p> <ul style="list-style-type: none"> • Be specific as to identity/role of all staff to be involved, their implementation experience and qualifications, and the exact time periods during which they will be on-site. • Specify how many personnel and at what level within the company (i.e., identify roles and experience at company and with product) will be involved. • Will implementation team be dedicated only to the VCU Parking System implementation project through Go-Live and for a time period afterwards or assigned to other clients in addition to VCU? <p>T2 Systems Response: At this time, T2 cannot be specific on the exact implementation consultant that will be assigned to your project. Once the contract is signed, VCU will be notified of who your project team will be. This will include the requirements stated above. The implementation team will have other assignments during this project.</p>
13.	<p>Describe the expectations for VCU Parking personnel resources that will need to be available to participate in the implementation process. Be specific as to identity/role of needed personnel and estimated time commitment of each that will be needed.</p> <p>T2 Systems Response: Once the project kicks off, our project manager will work closely with VCU to identify the key players for implementation. The T2 Project Implementation document in the Appendix will give VCU our high-level implementation process.</p>
14.	<p>Describe the level of support which will be provided immediately prior to, during, and immediately after the “Go-Live” phase.</p> <p>T2 Systems Response: Please see the Appendix for the T2 Project Implementation document which will describe the support VCU will receive prior, during and after the “Go Live” phase.</p>



15.	<p>At what point during the implementation process will a full test version of the proposed software be available for VCU personnel to access and thoroughly operate in a training mode?</p> <p>T2 Systems Response: A test version is created once the project is kicked off. VCU staff will have access to train in this test version.</p>
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Data Migration Questions

Item #	Questions and Requests
1.	<p>Specify the details of how data from VCU Parking’s current system will be converted/migrated into the proposed system, including the following:</p> <ul style="list-style-type: none"> • Plan and methods for data extraction – who will be responsible, contractor, University, or 3rd party? • If contractor does not provide data extraction services, include 3rd parties with whom they have worked previously. • estimated timeline for completion within the implementation process • All costs associated with this process must be identified on the Quotation Sheets <p>T2 Systems Response: T2 Systems offers Data Conversion services. A typical implementation for a Permit and Citation Software system is anywhere between 90 to 120 days which includes data conversion. Please see the Appendix for the implementation process document. All costs are included in Section 1.32. During the data conversion process, VCU will work closely with one of T2’s Data Conversion specialists. Once awarded, the data conversion process will be discussed in detail. The bullets below provide a high level of the process:</p> <ul style="list-style-type: none"> ■ Determining Data to Convert ■ Export of Data ■ Conversion of Data ■ Import of Data ■ Review Data in T2 Flex ■ Perform Live Conversion
2.	<p>Provide references of existing customers that your company has migrated to for Permit Management software.</p> <p>T2 Systems Response: Data migration is very common among our existing customers in higher education. Contact information for the following regional Universities can be found at the end of this Section 1.31, which have all experienced large data migration activity upon becoming T2 customers</p> <p><i>University of Virginia</i> <i>George Mason University</i> <i>George Washington University</i></p>

Update and Upgrade Questions

Item #	Questions and Requests
1.	<p>How often are version updates to your software typically released?</p> <p>T2 Systems Response: T2 has two (2) general releases per year (spring and fall). In addition there are two (2) maintenance releases per year.</p>
2.	<p>Are version updates included at no additional charge to customers?</p> <p>T2 Systems Response: T2 Flex upgrades are included as part of the subscription agreement.</p>
3.	<p>What is the methodology utilized to apply version updates?</p> <p>T2 Systems Response: In a hosted environment, T2 is responsible for applying the update/upgrade and/or patch. Applying an upgrade and/or patch requires the database to be taken offline. The existing application software is removed. The upgrade or patch is installed using plug and play technology. A script is applied to the database. VCU will be notified in advance of when this update will occur.</p>
4.	<p>How is affected by version updates to the software?</p> <p>T2 Systems Response: Version updates do not affect have a negative impact on the software.</p>
5.	<p>What responsibilities for software upgrades are assumed by the University?</p>
6.	<p>Supply a copy of your upgrade and development calendar including all hardware and software components, applications and third party services during the next five (5) years.</p> <p>T2 Systems Response: Our roadmap and development is based on solid market research and customer feedback. It serves one of our core customer bases –the higher education market, and will continue to evolve based on the needs of customers from higher education.</p> <p>Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs.</p>
7.	<p>Provide a test platform and method for implementing upgrades, especially for modules that are customized.</p> <p>T2 Systems Response: T2 Systems will provide a test instance.</p>
8.	<p>Provide a copy of your Quality Assurance Guidelines for testing new software releases.</p> <p>T2 Systems Response: T2 Systems Quality Assurance department owns and retains our System Development Life Cycle (SDLC) document which describes the procedures, and practices (i.e. methodology) governing the proposal, design, development, testing, roll-out, support, and</p>

	retirement of T2 Systems software solutions. This SDLC methodology shall be used during each release cycle for implementing all new features and changes to existing features. A copy of this document can be provided if awarded.
9.	<p>What is the release version that would be implemented at VCU?</p> <p>T2 Systems Response: T2 has two (2) general releases per year (spring and fall). The implementation date will determine the release version that will be implemented at VCU.</p>
10.	<p>What is the expected timeframe for release of the next product version which requires a different platform or an operating system upgrade?</p> <p>T2 Systems Response: T2 has two (2) general releases per year (spring and fall). Typically, new releases do not require a different platform or operating system upgrade.</p>
11.	<p>Have there been major enhancements to the product in the last year, and if so, please describe them?</p> <p>T2 Systems Response: In the last year T2 Systems has rolled out several new enhancements to the Permit and Citation Product. Below are a few:</p> <ul style="list-style-type: none"> ■ CBORD integration ■ Blackboard integration ■ Real-time Banner integration ■ Dashboards- T2 Flex Dashboards allow you to create easy-to-read graphical representations, called widgets, of your organization's real-time Key Performance Indicators (KPIs). When KPIs are readily available in an easy-to-read format, you can confidently make informed decisions about the state of your parking operation. ■ PermitNow online sales- A number of enhancements have been added to the Flex event setup to support a new eBusiness PermitNow event sales process. The online event sales process has been greatly simplified and streamlined. In eBusiness, customers can see all available events on one page and make selections in fewer places without stepping through multiple pages. Anonymous customers can complete the entire permit sales process without having to create a user account or log in to eBusiness. Standard eBusiness authentication is still supported but is no longer required.
12.	<p>List major enhancements planned for the coming year.</p> <p>T2 Systems Response: T2 is dedicated to have multiple releases per year that will both add functionality and upgrade hardware when necessary. These releases will contain market features as well as enhancements identified by our customers. Every year there are two major releases planned along with several minor releases.</p> <p>T2 Systems and development is based on solid market research and customer feedback. Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and</p>

	<p>prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs.</p> <p>T2 has a great process in place for customer feedback. Each customer has their own customer portal to enter their requests through the T2 website. These are received and will be prioritized by our Product Management group.</p> <p>The T2 Flex road map is constantly evolving. The next release includes mobile enforcement solution on the Android and iOS7 Operating system devices. Sharing future roadmap functionality is considered proprietary and can be shared with VCU upon signing a NDA agreement with T2 Systems.</p>
13.	<p>How many levels of software releases are currently supported?</p> <p>T2 Systems Response: T2 requires all Flex instances hosted by T2 for either production or for testing to be on the current or next most recently released T2 Flex application software version.</p>
14.	<p>What happens if upgrades negatively affect client's system? What is the plan to restore system to its state prior to the upgrade?</p> <p>T2 Systems Response: Technical support can assist in restoring the system to the prior state if an upgrade were to negatively affect VCU's system.</p>

1.24 Customization

Item #	Questions and Requests
1.	<p>Describe the customization options (format/ content) of the screens, forms, reports, etc. available in the proposed PARC system for the University.</p> <p>T2 Systems Response: System Settings allow you to configure T2 Flex to more closely match your organization's policies and procedures The My Settings option is the gateway to a number of specific settings that will allow for better control of some display aspects of T2 Flex for each individual user. For example, the ability to rename field names, change the order of fields within a record, or omit fields.</p>
2.	<p>Describe the tools utilized by end-users in the customization process</p> <p>T2 Systems Response: The end user will utilize tools within Flex such as the My Settings feature and Crystal Reports.</p>
3.	<p>Describe the extent of training and programming skills needed to become proficient in customizing the software of the system</p> <p>T2 Systems Response: In order for your staff to work independently and proficiently within Flex, your implementation project plan will have time dedicated for training sessions for this purpose.</p>

4.	<p>Does your company require access to VCU Network 365/24/7? How frequently are updates, patches, etc., normally performed? Please explain.</p> <p>T2 Systems Response: Every day from 5:00 AM until 6:00 AM Eastern. This is the time T2 reserves for urgent work usually related to the repair of failing components or the implementation of critical security patches (like critical/urgent Microsoft and Cisco updates). On average, T2 uses about one of these a week, but the systems are rarely down for the entire hour. Usually it is only minutes while technicians reboot servers to apply patches.</p>
5.	<p>Describe all customization options (format/content) of screens, forms, reports, etc., available in the proposed PARC system.</p> <p>T2 Systems Response: System Settings allow you to configure T2 Flex to more closely match your organization's policies and procedures The My Settings option is the gateway to a number of specific settings that will allow for better control of some display aspects of T2 Flex for each individual user. For example, the ability to rename field names, change the order of fields within a record, or omit fields.</p>

1.25 Statement of Work

Item #	Questions and Requests
1.	<p>Provide a Statement of Work outlining tasks to be performed by the respondent, the University and any third party contractors.</p> <p>T2 Systems Response: Please see Appendix for Implementation Process document which outlines the tasks to be performed.</p>

1.26 Third party services

Item #	Questions and Requests
1.	<p>List the names of any technology companies that your organization is partnered with, the nature of your relationship, and the value that it brings to your proposed solution and ultimately to our organization.</p> <p>T2 Systems Response: T2 Systems has worked hard to establish partnerships with third party applications. These applications can be used by customers of T2 Systems to enhance their parking experience. T2 is happy to announce the following partnerships:</p>

	<ul style="list-style-type: none"> ■ Digital Payment Technologies (Pay by Space integration with T2 supported handheld) ■ Cale (Pay By Space) ■ Parkeon (Pay By Space) ■ Genetec (AutoVu LPR) ■ Parkmobile (Pay By Cell) ■ PayByPhone (Pay By Cell) ■ QP (Pay By Cell) ■ Mobile Now (Pay By Cell) ■ Teleworks (IVR) ■ Weldon, Williams, and Lick (PermitDirect) ■ Casio Business Solutions (handhelds) ■ Motorola (handhelds) ■ O’Neil (portable handheld printers) ■ Zebra (portable handheld printers)
2.	<p>Describe your overall approach to developing, testing, implementing, and upgrading system interfaces to 3rd party systems.</p> <p>T2 Systems Response: Our development is based on solid market research and customer feedback. T2 works closely with individual 3rd party services to conduct the testing, implementing and upgrading stages.</p>
3.	<p>Detail any limitations/issues regarding the willingness or ability to interface/integrate the proposed system with other 3rd party automated systems.</p> <p>T2 Systems Response: Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs. We will work closely with VCU to understand your business process and best practices.</p>

4.	<p>Please indicate if your firm offers an Interface Engine product and/or describe your experience with 3rd party interface engine products and the proposed system.</p> <p>T2 Systems Response:</p> <ul style="list-style-type: none"> ■ Web Services — A way to exchange data that is as simple as sending and receiving messages using standard protocols like XML. Through T2’s web services, integration with T2 Flex is simple. ■ T2 Flex task scheduler lets you create and schedule both custom and pre-defined tasks for automatic, unattended execution. Predefined tasks in T2 Flex include (but are not limited to): <ul style="list-style-type: none"> ■ Export data to another system or import data from another system. ■ Import data from another system. ■ Batch update records. ■ Escalate fines and add citation late fees. ■ Add citation late fees. ■ Convert overpayments on citations. ■ Generate letters and notices in print or e-mail format. ■ Create vehicle notifications. ■ Create boot/tow lists. ■ Create scofflaw lists. ■ Create VIP lists. ■ Create files for communication with handheld computers.
5.	<p>If customization is required, describe how this will affect the cost, timeline for development, and support after implementation of the interface.</p> <p>T2 Systems Response: Business processes will be gathered in order to determine the customizations needed to interface with third party services. This will determine cost, timeline for development and support.</p>

1.27 User Group

Item #	Questions and Requests
1.	<p>Does your company offer an annual forum for customers to learn more about the contractor’s products and services, offer training classes and network with other customers?</p> <p>T2 Systems Response: T2 User Group, one of the largest parking conferences in North America, is an annual event for T2 customers at all levels to join together for industry best practices, product training, release updates, roundtables, and social networking.</p>

	<p>New organizations receive one (1) free registration to User Group. Sessions are broken down by tracks, tracks for the conference include –</p> <ul style="list-style-type: none"> ■ Front Line Basics ■ Beyond the Basics ■ eBusiness ■ Data Mining ■ Enterprise Solutions ■ PARCS ■ Leadership ■ Handhelds ■ Integration <p>The agenda for the 2014 User Group is being finalized. A copy of the agenda can be provided when finalized.</p>
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1.28 Pricing

Questions and Requests	
1.	<p>Explain your company’s assumptions in determining the cost including:</p> <ul style="list-style-type: none"> Assumed number of transaction per year Assumed breakdown of mobile payment system usage Assumed growth, year over year <p>T2 Systems Response: T2’s pricing is based on a subscription to T2Flex including Permit Management software, Citation Management software, and eBusiness solutions. T2 offers unlimited transactions per year at no additional charge to the University with unlimited growth year over year. Additionally, the subscription includes new releases (on average 2 per year), all updates, enhancements and patches free of charge. The required integrations, interfaces, handheld citation devices, RFID permits, 3rd Party Permit Fulfillment Services, and implementation & training have been INCLUDED.</p>

1.29 Company Background

Item #	Questions and Requests
1.	<p>List your company’s technology and/or distribution alliances and partnerships, including the partner name, address, telephone number, and a brief description of the nature of the relationship.</p> <p>T2 Systems Response:</p> <ul style="list-style-type: none"> ■ Digital Payment Technologies 330-4260 Still Creek Drive Burnaby, BC, V5C 6C6 Canada Phone: 888.687.6822

Partner Solutions: Luke II pay stations and Digital Iris software. Handheld enforcement software with EMS supporting pay stations in pay-by-space or pay-by-plate mode

NOTE: In January of 2014, T2 Systems announced the completion of their acquisition of Digital Payment Technologies (DPT), a leader in providing “smart” multi-space pay stations and cloud-based software for the parking industry

- Weldon, Williams & Lick, Inc.
711 N A St
Fort Smith, AR 72901
Phone: 479.783.4113

Partner Solutions: Parking permits, hangtags and decals. Permit fulfillment through T2’s PermitDirect service.

- Genetec, Inc.
2280 Alfred-Nobel Blvd.
Suite 400
Montreal, Quebec, Canada H4S 2A4
Phone: 866.684.8006

Partner Solutions: AutoVu mobile LPR, AutoVu Managed Services. T2 eTicketbook and T2 Flex Permit and Enforcement.

- ParkMobile
Parkmobile USA
3200 Cobb Galleria Parkway, Suite 100
Atlanta, GA 30339
Phone: 770.818.9036

Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.

- ParkNow
42-40 Bell Blvd, Suite 604
Bayside, NY 11361
Phone: 718.819.2100

Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.

- QP Corp.
1123 Industrial Road, Suite 200
San Carlos, CA 94070
Phone: 650.290.7763

Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.

	<ul style="list-style-type: none"> ■ Cale 3808 Monroe's Business Park TAMPA, FL 33635 Phone: 813.405.3900 <p>Partner Solutions: Cale pay stations and back-end software. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p> ■ Parkeon 40 Twosome Drive # 7 Moorestown, NJ 08057 Phone: 856.234.8000 <p>Partner Solutions: Strada and CityPal pay stations and MyParkfolio software enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p>
2.	<p>List any current or previous regulatory actions against your company or its officials in the past five (5) years. Include the date(s) of action(s) and resolution.</p> <p>T2 Systems Response: None</p>
3.	<p>Has your firm or any of its current officials ever filed for bankruptcy protection?</p> <p>T2 Systems Response: No</p>
4.	<p>Has your firm or any of its current officials ever had tax liens filed in any state or federally?</p> <p>T2 Systems Response: No</p>
5.	<p>Has your firm or any of its current officials had any judgments against it by any taxing authority within the past ten (10) years? If so, list the dates, name of authority, and disposition.</p> <p>T2 Systems Response: No</p>
6.	<p>Has your firm been found guilty of any patent or trademark violations in the past ten (10) years? If so, provide complete details including case number and jurisdiction.</p> <p>T2 Systems Response: No</p>
7.	<p>In what state is your firm incorporated and where is its headquarters located?</p> <p>T2 Systems Response: T2 Systems, Inc. is incorporated in the state of Indiana. T2's corporate headquarters is located in Indianapolis, IN.</p>

8.	<p>List any names your firm has previously operated under since beginning operations.</p> <p>T2 Systems Response: T2 has been operating as T2 Systems, Inc. since 1994.</p>
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1.30 Reporting

Item #	Questions and Requests
1.	<p>Describe the systems reporting tool and any premade reports. Does the system allow ad hoc reports and can these reports be built within the system?</p> <p>T2 Systems Response: Crystal Reports is offered as an ad-hoc reporting tool for use with T2 Flex. A named user license for developing reports is included with the Flex subscription. Once Crystal Reports are loaded in T2 Flex (for reports and letters,) users do not need the Crystal Reports software to run the reports or generate letters. T2 Flex comes standard with over 90 different reports. The premade reports are categorized. Some examples are Citations, Permits, Events, Vehicle and Financial.</p>
2.	<p>Describe the reporting tool with canned reports along with ad hoc reports.</p> <p>T2 Systems Response: Crystal Reports is offered as an ad-hoc reporting tool for use with T2 Flex. A named user license for developing reports is included with the Flex subscription. Once Crystal Reports are loaded in T2 Flex (for reports and letters,) users do not need the Crystal Reports software to run the canned reports or generate letters. T2 Flex comes standard with over 90 different reports.</p>
3.	<p>Will VCU have access to database to write custom reports?</p> <p>T2 Systems Response: Yes, VCU will have access to the database to write custom reports.</p>
4.	<p>Does the system allow for reports to be built outside of the system and imported in? If so what type of formats can be imported in?</p> <p>T2 Systems Response: Reports are built using Crystal Reports and uploaded into Flex.</p>
5.	<p>If the contractor is acting as the merchant, taking payments via their own merchant services account and proposing to pay VCU's portion after the fact, Contractor shall provide the following reports for any revenue collected by the Contractor or their third party service:</p> <ul style="list-style-type: none"> • Monthly revenue report showing the number and type of permits sold, itemized by rate and the point of sale such as Transportation Services Office, website or mobile app • Special event records including the number of event permits sold for each location and the revenue for each location identifying the event and location <p>T2 Systems Response: T2 Systems will not be acting as the merchant.</p>

6.	<p>Describe the reports available with how the system sets the various parking zones, decks, and lots with regards to enforcement and permit regulation.</p> <p>T2 Systems Response: Within Flex, VCU will configure the rules for enforcement regulation, permit regulation and facility regulation. Once the rules are set, VCU can generate reports Flex reports using various fields for VCU staff to select from.</p>
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1.31 Financial Proposal

Item #	Questions and Requests
1.	<p>The Financial Summary shall contain complete financial offer made to the University fully describing all aspects of the proposal and the costs including hardware/equipment, Permits, software, software license, support/maintenance/upgrades, customization and modifications, system manuals and documentation, training, data conversion, any transaction and remittance fees as well as professional services to be provided by Contractor and any third party initially and per year beyond those listed in this RFP. Describe in detail the financial proposal you are offering the University for all Products and Services to be provided. Any transaction fees paid by VCU shall be clearly identified.</p> <p>Proposals are requested for University hosted and contractor hosted systems. Each host option should be treated as a separate pricing proposal. In addition to the host options, the University is requesting proposals for all new equipment/ hardware devices and for using the existing equipment/hardware.</p> <p>Each pricing proposal shall include an itemization of all costs to the University.</p> <ol style="list-style-type: none"> a. Respondents should be creative in presenting various alternatives for providing services at the least possible cost to the University. The University will select the financial option that best meets the overall needs of faculty, staff, and students. b. It is the Respondent’s responsibility to verify any information, measurements and obtain any clarifications prior to submitting the bid response. The University is not liable for any errors or misinterpretations made by the Respondent in response to this Solicitation. c. The quoted price involving equipment shall include all necessary accessories to make a complete functioning unit unless specifically stated in the Solicitation. d. Quoted price shall include all travel expense associated with the installation, training and implementation of the system. e. What is the discount(s) applied to the cost of the products. Confirm that this is the minimum discount for all product purchases throughout all of the terms of the contract. f. Include an example of your firm’s standard software support/maintenance agreement. g. If using a third party credit card processor/gateway, detail all credit card transaction fees associated. h. Quote hourly rate for work not covered by maintenance agreements <p>T2 Systems Response: T2 has provided a section titled “Financial Proposal Summary”, which provides the details requested in items a-h, above.</p>

References and Implementation Schedule

1) Respondent shall supply names, addresses, and telephone numbers of three (3) business references from the management of other higher education customers for whom the contractor has provided products and services similar in size and complexity to VCU, and to those outlined within the RFP specifications. The Respondent shall grant permission to the University to contact the references. If prior permission is required of the business reference in order to provide this information, the contractor shall obtain permission to include this information with the proposal. For each reference, include:

Name, address, phone number, fax number and email addresses of the Reference similar

- Number of users
- Date of contract commencement
- Go live date with system
- Current version
- Brief description of software & hardware configuration, including number & type of workstations, scanners, printers, & other system components

T2 Systems Response:

T2 CUSTOMER REFERENCES

- **George Mason University**
Josh Cantor - Director, Parking and Transportation
Phone: 703.993.1239
Email: jcantor1@gmu.edu
Number of users: 20
Date of contract commencement: 2000
Go-Live date: 2000
Current version: 7.6

George Mason University is a unified/enterprise customer using multiple solution components from T2, including PARCS and permit/citation management.

T2 Flex modules in use include Citation management, Permit Management, and eBusiness solutions. GMU also utilizes T2 PARCS to manage facilities and lots, with Standard Parking as their operator

GMU uses 12 Motorola MC75 handhelds with O'Neil printers for enforcement.

■ University of Virginia

Becca White - Director, Parking and Transportation

Phone: 434.924.6763

Email: rwc6j@virginia.edu

Number of users: 20

Date of contract commencement: 2000

Go-Live date: 2000

Current version: 7.6

UVA is a unified/enterprise customer using multiple solution components from T2, including PARCS and permit/citation management for the main campus and Medical Center.

T2 Flex modules in use include Citation management, Permit Management, and eBusiness solutions. eBusiness solutions include Permit sales, Citation payments, Citation appeals, My Account and Printable Validations. Additional solutions include Access Control, Revenue Control, Event Management, PermitDirect, Collections, and RoVR (owner look up)

UVA uses 6 Motorola MC9500 handhelds with Zebra printers and Pay by Space integration for Enforcement.

■ Duke University

Chuck Landis – Parking Services Manager

Phone: (919) 684-2816

Email: charles.landis@duke.edu

Number of users: 15

Date of contract commencement: 1998

Go-Live date: 1998, 2013 (PARCS)

Current version: 7.6

Duke University is a unified/enterprise customer using multiple solution components from T2, and recently transitioned over 100 lanes

T2 Flex modules in use include Citation management, Permit Management, and eBusiness solutions. Duke also uses PermitNow for Event Management, and Permit Direct for permit fulfillment

2) Name and contact information of the individual(s) in the reference's IT Department, so that the University can contact for further information.

T2 Systems Response: Our customers request that initial communication be made through the leadership contact provided. Please use the contact information provided for the References above, and personnel will be made available to accommodate VCU's request.

3) Respondent shall provide an implementation and transition schedule for the proposal submitted.

T2 Systems Response: T2 will provide a final, detailed implementation schedule upon finalization of scope and project award.

In general, T2 Flex Permit Management and Enforcement/Citation Management can be implemented in approximately 90 days from award. If eBusiness (eCommerce) and Event Solutions (PermitNow) is included, the implementation timeline will be closer to 120-140 days. If an award is complete with PARCS components, T2 will work with VCU to implement in a phased approach most desirable to the University.

Upon award, T2 will send a team to work on final scoping/configuration documents and provide a solution design and implementation itinerary.

Other Additional Information

1) Please provide any additional information that the Respondent feels should be considered when evaluating their proposal.

2) Respondent may present any creative approaches that might be appropriate. The Respondent may also provide supporting documentation that would be pertinent to this RFP.

T2 Systems Response: T2's unique offering has been provided in the "Financial Proposal Summary" section.

Attachments to be included with proposal:

- 1) Your company's insurance certificate(s)
- 2) Security Certification

T2 Systems Response: T2 has provided both documents in the Appendix section of our submittal.



Section 4. Technical Response

Parking Access & Revenue Control (PARCS)

SECTION 4 - TECHNICAL RESPONSE

PARKING ACCESS & REVENUE CONTROL (PARCS)

1.33 Work Included

Item #	Questions and Requests
1.	<p>The Work of this Section shall include furnishing all material, equipment, labor, and supervision to install in place a fully operating Parking Access and Revenue Control System as specified herein. Included will be the supply, delivery, unloading, setting, anchoring, electrical and control wiring installation, electrical and control wiring termination, start up and testing the system, and all associated equipment. Also included shall be on-site training for VCU staff as described further in this RFP.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
2.	<p>No existing equipment or materials of any description, with the exception of booths, fixtures or equipment specifically provided by VCU, shall be re-used. Existing detector loops shall become the technical responsibility of the Contractor.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
3.	<p>Control wiring is defined as wiring, regardless of medium, required for the communication of data between devices or the control of those devices.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
4.	<p>Installation of the new system shall include removal of the existing Parking Access & Revenue Control System devices being replaced. Contractor will provide an inventory of equipment that will be removed for VCU's approval prior to removal. The selected Contractor shall remove the existing equipment located within existing lanes and communication and server rooms in order to install the new equipment. All existing equipment remains the property of VCU and shall be removed with care so as to not damage the equipment and keep intact and operable.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>New concrete islands at the entry/exit lanes for the "D" Deck and "N" Deck will be provided with electrical and communication conduits and wiring to a central location at each facility. The selected Contractor shall submit shop drawings for equipment placement and network wiring approval by VCU or its representative based on the schedule provided within the technical RFP. VCU or its representative shall review the shop drawings and provide comments or approval within ten (10) days of receipt of drawings</p>

- a. NOTE: ALL PROSPECTIVE CONTRACTORS ARE ADVISED TO INSPECT THE PREMISES TO ENSURE THAT THERE ARE ADEQUATE CONDUIT RUNS AND LOOPS FOR THEIR EQUIPMENT AND SYSTEM. IF ADDITIONAL CONDUIT RUNS AND LOOPS ARE REQUIRED, AN ITEMIZED LISTING OF THE ADDITIONAL CONDUIT RUNS AND LOOPS MUST BE INCLUDED WITH THE PROPOSAL ALONG WITH A FIXED PRICE QUOTE FOR INSTALLATION.
- b. IN ADDITION, PROSPECTIVE PROPOSERS WILL ALSO INSPECT THE CONDITION OF ALL ENTRY/EXIT DRIVE LANES TO DETERMINE IF CONDITIONS ARE ADEQUATE TO INSTALL EQUIPMENT AND LOOPS.

PROSPECTIVE PROPOSERS ARE REQUIRED TO SUBMIT FIXED PRICE QUOTES FOR ANY REPAIRS OR MODIFICATIONS TO EXISTING CONCRETE ISLANDS AND ENTRY/EXIT DRIVE LANES.

VCU ENGINEERING CONSTRUCTION SERVICES WILL PROVIDE CONCRETE ISLANDS, ELECTRICAL POWER AND NETWORK CONDUIT AND CABLE AS REQUIRED FOR THE “D” DECK AND “N” DECK.

THE CONTRACTOR IS EXPECTED TO OFFER AND PROVIDE A FULLY FUNCTIONING SYSTEM, ACCORDING TO THE TERMS OF THE RFP AND WILL MAKE ACCOMMODATIONS FOR SPECIAL NEEDS OF THEIR SPECIFIC SYSTEM AND TECHNOLOGY TO PROVIDE A FULLY FUNCTIONING SYSTEM AT PROJECT COMPLETION.

ALL CONDUITS SHALL BE CONCEALED WITHIN THE CONCRETE ISLAND OR PARCS EQUIPMENT.

T2 Systems Response: T2 Systems acknowledges.

Contractor to Install at Existing Parking Facilities

Item #	Questions and Requests
1.	<p>Contractor shall furnish and install:</p> <p>Any additional 120V/208V electrical conduit and wiring as needed between the lane equipment and an electrical panel, through an electrical junction box located nearby each entry/exit locations.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply</p>

2.	<p>Any additional data and voice communication conduit and wiring between all lane equipment and the Server. There are junction boxes located at each entry/exit plaza as needed where Contractor can access VCU's fiber optic network for communication with a central Parking Access & Revenue Control System computer, workstations on the network and other Parking Access & Revenue Control System devices.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
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3.	<p>Any additional fiber-optic cable installed by Contractor shall be, at a minimum, six (6) strand. Selected cable shall be according to VCU (OTS) Standards</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
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4.	<p>Necessary interface equipment and connections to provide for transfer of data through VCU fiber-optic network to the system server and other workstations on the network through which access to the system is provided and authorized.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
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Access to VCU's Ethernet Network backbone for data connection of parking system equipment

Item #	Questions and Requests
1.	<p>VCU OTS will assign network IP addresses for the Contractor to use.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
2.	<p>All network hardware provided by Contractor shall be manufactured by Cisco. A list of all network hardware shall be provided to VCU OTS for approval prior to purchase and installation.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
3.	<p>The network design for connection to VCU backbone must be submitted to VCU IT Department for approval prior to installation.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>

4.	<p>As a system security measure, no input via modem to devices connected to VCU's network backbone shall be permitted at any time.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply</p>
5.	<p>Contractor shall obtain VCU's approval for the specific location of any electrical and control wiring junction boxes. Contractor is responsible for providing the connections and circuit breakers in the junction box, and wiring to the equipment.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
6.	<p>Contractor shall detail on Shop Drawings the method of installation for wiring in each lane for review and approval by VCU. The method of installation for electrical and control wiring shall be tamper resistant and shall reduce exposure to accidental or intentional damage by activity within the booths. No loose wiring is acceptable. Conduit and connections shall be finished and any penetrations into the booth walls or other surfaces shall be made water-resistant with proper gaskets at each penetration point to prevent moisture intrusion at the hole or down the thread of mounting screws. Conduits shall not interfere with access to or the operation of any other components of the booth. All wiring and conduit shall meet all NEC requirements.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>

1.34 Contractor Requirements

Item #	Questions and Requests
1.	<p>The parking systems Contractor shall furnish and install a completely operational parking revenue and access control system with all necessary hardware, software and interface components required to make that system fully functional and compliant with the RFP requirements.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
2.	<p>Contractor must assure that the system will be complete in every aspect, including all equipment and accessories necessary to perform the functions of the specified systems, and access and revenue control functions regardless of whether those necessary components, devices or software are specifically identified in this RFP. The complete system shall be installed, wired, connected, tested and left in first class operating condition.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply</p>
3.	<p>Unless approved in advance by VCU, primary parking control and revenue control equipment including ticket issuing machines, barrier gates, payment terminals, card readers and lane</p>

	<p>controllers must be supplied by a single equipment manufacturer to assure quality control, reliability, uniform compatibility and one source service responsibility. Revenue control software may be provided by a secondary source so long as that software has been used, in its current configuration, with the parking control equipment for a minimum of five (5) years at similar parking facilities and under conditions acceptable to the Parking Consultant as proof of established and successful system interface.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
4.	<p>Any fiber-optic data or fiber-optic voice communications installation shall be performed by technicians certified for fiber-optic installation.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>All equipment shall be factory finished with proper priming and powder coat finish to suit the environment in which it is to be installed. Final color will be determined and selected by VCU. All equipment enclosures shall be properly gasketed and sealed for weather tight integrity.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
6.	<p>Contractor must provide full control and interface between the Parking Access & Revenue Control System, its internal facility count system, the variable message signs and VCU website through a VCU OTS web portal or interface for automatic update of space counts and OPEN/FULL status as described in this RFP. These changes must be automatic based on input from the facility count system, subject to manual override provisions required in this RFP.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
7.	<p>Any deviations from this RFP after award of the contract must be submitted to VCU for review and approval at least thirty (30) days before procurement or installation. Submission of any system components or functional variations shall specifically identify any and all deviations from the RFP, referencing the specific requirement within the RFP by page and paragraph, and commenting on the effect of the deviation(s) when compared to the RFP.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
8.	<p>Any associated cost reductions or increases must be identified and clearly stated for review and acceptance or rejection by VCU. Submission of alternate systems, components or functionalities, without such specific identification of deviations, is not acceptable and will be rejected.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
9.	<p>The Contractor must have a Class A Contractor's License with the appropriate specialty classifications issued by the Virginia State Board of Contractors. Submit a copy of your Class A Contractor's License.</p>

T2 Systems Response: T2 Systems acknowledges and will comply.

Contractor Qualifications

Item #	Questions and Requests
1.	<p>Contractor must have worked successfully with the approved manufacturer's equipment for a minimum of three (3) years. Contractor shall furnish references and reference contact information for at least five (5) locations where the parking system lane hardware and software systems have been installed in similar sized. "Installed" is defined by the period after acceptance by the client as a completed, functioning installation.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. Although customer references have been provided later in this section, T2 will provide any/all references requested upon contract award or negotiation.</p>
2.	<p>Contractor shall have a factory-authorized service provider that is capable of providing regular same day service for maintenance and repair of the new access and Parking Access & Revenue Control System.</p> <p>T2 Systems Response: T2 Systems is proposing to have a factory-direct representative dedicated to VCU, which will meet and exceed the expectations of this requirement.</p>
3.	<p>Contractor shall provide for trouble-shooting and repair of electrical or fiber-optic problems from a source located not more than fifty (50) miles from VCU.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
4.	<p>Contractor shall show proof that it is able to provide on-site emergency service and repair within a maximum of two (2) hours from notification, 24 hours/day and 7 days a week.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>The Contractor shall verify and show proof, that it is an authorized manufacturer's representatives for the equipment it is proposing to supply under this contract. Contractor must also show proof that it maintains local authorized factory trained service personnel who will be available to provide installation and service support for this contract as required.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
6.	<p>All parts, special tools, and wiring schematics for the new equipment must be maintained and stocked at the equipment Contractor's local office to assure prompt, satisfactory service.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>

7.	<p>The Contractor shall be required to provide an inventory of essential spare parts and equipment components to be stored at the installation site for immediate access by any service personnel working on-site. The purpose of such inventory is to provide the capability of repairing a device by replacing the entire device or the failing component from the spare parts inventory to avoid repair delays for shipment of replacement parts. The spare parts inventory shall be the property of VCU.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. A recommended spare parts listing has been provided in pricing schedules from VCU's RFP</p>
8.	<p>The cost for parts and components included in the spare parts inventory shall be included in the Contractor's proposal, itemized by part or assembled component.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. A recommended spare parts listing has been provided in pricing schedules from VCU's RFP</p>
9.	<p>Contractor must make available specialized programming support and assistance for the computer-based systems and components. Local training must be offered to personnel using "hands on" methodology. The programming and training must be made available per requirements set out in this document.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
10.	<p>The equipment Contractor shall observe and comply with all local, state, and national government codes.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
11.	<p>All Contractor personnel shall be fully qualified and trained. Provide the names, qualifications, and experience of personnel proposed for the project. Resumes of staff to be assigned to the project may be used.</p> <p>T2 Systems Response: Please see team bios, below</p>

Tom Wunk, VP OF PARCS



Tom presides over the expanding PARCS group within T2, leading a growing team of dedicated and energetic industry professionals with experience implementing and managing PARCS both on the vendor and the operator side.

Tom has been in the parking industry since 1973 and has designed and implemented parking control solutions all over the world. He is a Certified Administrator of Public Parking and teaches a number of sessions in the IPI CAPP program.

Tom is an active member in both ASIS and the IPI and completed his CAPP certification in 2004. He has developed and provided consultative and operational training presentations for the IPI, ASIS, PIE, and the AAAE. He is a member of the IPI Technology Committee, the IPI Educational Committee, the Smart Card Alliance, and the EMV Migration Forum. Prior to T2 Tom managed the North American parking division of Scheidt and Bachmann.

Tom holds a BS in Engineering from State University of New York.

"The culture and energy of the T2 organization and the sincere customer-centric philosophy are incredible."

What separates T2 from the pack?

T2 offers parking professionals a different, future-oriented, partnership approach to PARCS.

Stephen DeFronzo, PARCS PROJECT MANAGER



Stephen makes sure our PARCS implementations are smooth and on time. He works with customers to clearly understand their requirements, complete the System Design Document (SDD), develop the Scope of Work, Testing Plan, Training Plan and Master Schedule. He also coordinates all activities required for project implementation. He crosses all the t's and dots all the i's.

Stephen has close to 20 years of extensive, progressively responsible experience managing major engineering, infrastructure, IT and systems projects, including 7 years in the parking industry and 4 years in the transportation industry. Prior to T2 he worked at Scheidt & Bachmann, Reclamation Technologies and Hitachi Kokusai.

Stephen holds a BS in Biology from Boston College, BS in Mechanical Engineering from Northeastern University and an MBA from Boston University. Stephen is Massachusetts Licensed Construction Supervisor (unrestricted license #CS86465).

Q Why should customers trust you?

A I am a 4th Degree Black Belt in Uechi-Ryu Karate

Dean Brady, PARCS SALES ENGINEER



Dean works with prospective customers to understand their system needs, business and technical requirements for their PARCS, and makes sure that the proposed T2 solutions would meet their needs.

Dean has over 20 years of systems integration, technical service and installation experience. He served in the US Air Force and is a decorated veteran of Operations Desert Shield, Desert Storm and Restore Hope. For the last 17 years he has worked in parking. Dean joined T2 in 2008. Prior to T2 Dean worked at Scheidt & Bachmann and McGann & Associates.

Dean holds a BSEET (Bachelor's in Electrical Engineering Technology) from Northern Michigan University. He was a Certified Mechanic in the US Air Force.

Q How long have you worked in parking?

A Almost 20 years!

Lynn Thomason, SENIOR IMPLEMENTATION CONSULTANT



Lynn leads the integration of T2's products into customer operations and mentors other members of the implementation consulting team. She is trusted with the most complex and demanding projects, and advises customers in the creation, design, specification, testing, and implementation of T2 solutions. She works with internal project management, sales, and technical teams to ensure the implemented solution meets customer needs.

Lynn has over 20 years of extensive experience in IT, programmer and implementation roles. Prior to T2 she worked at Activant Solutions, ERP Solution, Herman Miller, Denso Manufacturing, Amkor Manufacturing and the State of Michigan.

Lynn holds a BS in Chemical Engineering and an MS in Electrical Engineering from the University of Missouri.

Q What is your favorite place in the world?

A I am a very proud YOOPER, Upper Peninsula of Michigan.

Jody Backes, ACCOUNT MANAGER



Jody is responsible for the success of T2 customers in the Northeast and Midwest. She is their main point-of-contact once the first T2 project is complete. She regularly talks to customers and visits them to better understand their operation and make sure they are informed about T2 solutions that can help them. She answers their questions about products and services, pricing, billing and POs, training, and User Group.

Jody has been in sales for over 30 years and in parking for six. Prior to T2 she worked at Resort Condominiums International and The Estridge Companies. She was the top salesperson for five consecutive years and the most consistent producer for all 10 years due to her credo "it's about building relationships and taking care of people."

Jody holds a BS in Finance from the University of Wisconsin - Madison.

Q What is something unique about you that most people don't know?

A I am an avid college sports fan and married the boy next door.

1.35 System Description-General

Item #	Questions and Requests
1.	<p>VCU's parking facilities, which consist of surface parking lots and parking decks, are currently used by the Permit and transient parkers for short-term (less than one day) in conjunction with the operations of the University.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
2.	<p>The system includes a facility monitoring system for monitoring the status of all parking control devices and for sending remote commands to those devices.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
3.	<p>The system includes a facility count system that will maintain an accurate count of vehicles in each facility or sector. The count system will have the capability to automatically turn off/on FULL signs at facility entrances and FULL signs located at the head of entry points in each facility. The count system will also provide count information that can be displayed as space available counts on variable message signs (future) in each Parking Deck and VCU web site using VCU OTS web portal interface.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
4.	<p>The time for field devices will automatically be synchronized with the master clock in the central server.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>Multiple credentials will be used for the RFID Permit Parker Program, such as PROX Card, Bar-code/QR Card, QR Code by Mobile, or other future credentials interfaced within PARCS. All credentials must have the capability to be linked to one (1) permit/client profile.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. T2 Flex PARCS provides the unique ability to allow multiple access credentials to be associated under a single permit/account.</p>

RFID Permit Access Control Only Locations

Locations include:

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes
D Deck	MCV	2174	YES	NO	NO	5	5
N Deck	MCV	972	YES	NO	NO	2	2
Bowe	MPC	429	YES	NO	YES	3	3
Henry St. East	MPC	385	YES	NO	NO	2	2

Henry St. West	MPC	370	YES	NO	YES	2	2
Jefferson	MPC	679	YES	NO	YES	2	4
Laurel	MPC	209	YES	NO	YES	1	1
B & B	MPC	194	YES	NO	NO	1	1
Total ..		5409				18	20

Proposed Permit Only Facilities - Equipment Listing:

Facility	RFID Antenna	PROX/BarCode Readers	IP Intercom	Barrier Gate w/UPS	Network FMS & Count System
N Deck	4	4	4	4	YES
D Deck	10	10	10	10	YES
Bowe Street	6	6	6	6	YES
Henry St. East	4	4	4	4	YES
Henry St. West	4	4	4	4	YES
Jefferson St.	6	6	6	6	YES
Laurel St.	2	2	2	2	YES
B & B Deck	2	2	2	2	YES
Total ..	38	38	38	38	YES

General Descriptions and Features

Item #	Questions and Requests
1.	<p>General Description & Features:</p> <ul style="list-style-type: none"> a) As a primary feature of the PARCS, a turnkey RFID Permit Reader/Antenna, proximity and barcode/QR card readers as in fully integrated access control system shall be provided for all VCU "Permit Parking" locations on each campus. b) The PARCS multiple credential VCU access card system must utilize the existing VCU Proximity Card encoding and shall be fully integrated within the PARCS. All credentials must have the capability to be linked to a one (1) permit/client profile. c) Each public entrance and exit lane for Permit Parkers shall be equipped with: <ul style="list-style-type: none"> (1) 4" Red/Green Light Lane Control Indicator (1) LED FULL Sign (1) IP intercom sub-station (1) RFID Antenna (1) PROX Card Reader (1) Barcode Card Reader (1) Barrier gate (1) UPS Power Controller (2) Vehicle detectors.

	<p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
2.	<p>RFID Permit: Each vehicle must have an RFID Permit affixed to the vehicle. The RFID Reader/Antenna will be located within the entry lane to read all incoming RFID Permits on each vehicle. The Reader/Antenna shall be an intelligent device and connected to a distributed database network controller that shall retain current data of active access credentials of all Permit holders.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
3.	<p>VCU Card: All VCU Permit Holders also have a VCU ID Card that contains multiple technologies for various access and payment systems located throughout the campus. Each VCU ID Card has a 26 Bit proximity ID code, Mag Stripe data on Tracks 1, 2 & 3, and contains an intelligent barcode printed on the surface.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
4.	<p>RFID Reader/Antenna shall be field programmable to the PARCS Site Code and must adapt to VCU RF parking environments to ensure that Permits are read and captured at the appropriate lane. RFID Permit reading causing data crossover or data collisions will not be accepted.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>The Proximity Card Reader and Bar Code Reader shall be housed in one cabinet or enclosure and pedestal along with an IP Intercom substation. Each reader shall update the PARCS database in real-time.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
6.	<p>IP intercom to communicate with any VCU parking office on the PARCS network.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
7.	<p>The Proposer shall design and utilize the existing fiber optic cabling for data and audio (intercom) communication between the field devices and the host system. The field devices shall retain an active card file so that if communication between the field device and the host are interrupted, all Permit holders shall continue to have access privileges. If communication is interrupted and re-established, upon reestablishing communication, the information within the field devices shall be communicated to the host and the database at the host system will be updated for access privileges that have been granted.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
8.	<p>Operational sequence of a Permit holder using the RFID affixed Permit sticker: A RFID Permit, located on the windshield of the vehicle, would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would drive slowly into the entry lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open</p>

	<p>the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will close. Each vehicle must present a valid RFID Permit for the barrier gate to open.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
9.	<p>Operational sequence of a Permit holder using the PROX card: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
10.	<p>Operational sequence of a Permit holder using the Bar Code card: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
11.	<p>The access card system shall have an anti-pass back feature as part of the system.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
12.	<p>Gate will not open if an access card is determined to be invalid by the system. A notification will be given to the card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance a parking office Manager shall answer the intercom from anywhere on the PARCS IP Intercom network. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
13.	<p>A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a Permit Holder's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.</p>

T2 Systems Response: T2 Systems acknowledges and will comply.

Permit & Transient (Public Parking) Facilities:

Locations include:

Facility	Campus	Total Parking Spaces	Permit Parking	Transient Parking	Special Event	Entry Lanes	Exit Lanes
8 th Street Deck	MCV	967	YES	YES	YES	3	4
W. Broad St Deck	MCV	960	YES	YES	YES	4	4
W. Carey St. Deck	MPC	726	YES	YES	YES	2	3
W. Main St. Deck	MPC	1101	YES	YES	YES	4	4
Total ..		3754				13	15

Proposed Permit & Transient (Public Parking) Facilities - Equipment Listing:

Facility	RFID Antenn a	PROX/ BarCode Readers	Entry Station	IP Intercom	Barrier Gate w/UPS	Exit Station	Payment Station	Network FMS & Count System
8 th Street	7	7	3	7	7	4	1	YES
West Broad	8	8	4	8	8	4	2	YES
West Carey	5	5	2	5	5	3	1	YES
West Main	8	8	4	8	8	4	2	YES
Total ..	28	28	13	28	28	15	6	YES

General Description & Features of the Entry Lane:

It is expected that all entry lanes will remain open 24 hours per day, 365 days per year.

Item #	Questions and Requests
1.	Each Permit & Transient entrance lane shall be equipped with: (1) 4" Red/Green Light Lane Control Indicator (1) LED FULL Sign (1) Entry Station-automatic ticket dispenser, push button for ticket (1) IP intercom sub-station

	<ul style="list-style-type: none"> (1) RFID Antenna (1) PROX Card Reader (1) Barcode Card Reader (1) Barrier gate w/Visual and Audible Pedestrian Warning System (1) UPS Power Controller (3) Vehicle detectors. The detector loop system, in conjunction with logic within the ticket dispenser, shall provide directional logic to determine the direction of vehicle passage over the loops and alarm for exception ticket occurrences. The Manufacturer shall provide and support three loops to provide directional logic. <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
2.	<p>When the entrance lane is "open", the presence of a vehicle over the "A" & "B" detector loop adjacent to the Entry Station - ticket dispenser, shall activate the vend push-button for the ticket dispenser, and when the button is pushed, will cause it to dispense a single ticket. A voice annunciator shall sound until the parker has removed the ticket from the dispenser. The gate shall open automatically with removal of the ticket from the ticket dispenser and shall remain in the "up" position until the vehicle has passed over and cleared a "closing" loop "C" located just beyond the gate arm.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
3.	<ul style="list-style-type: none"> 1) A Permit parker will utilize their RFID Permit, VCU Prox card or bar code card to obtain access. All credentials are linked to VCU ID Permit Holder as one account. <ul style="list-style-type: none"> a) Operational sequence of a Permit holder using the RFID affixed Permit sticker: A RFID Permit, located on the windshield of the vehicle, would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would drive slowly into the entry lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will close. Each vehicle must present a valid RFID Permit for the barrier gate to open. b) Operational sequence of a Permit holder using the PROX card: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the

	<p>gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>c) Operational sequence of a Permit holder using the Bar Code card: A Permit vehicle would approach the entry lane loop sensors that would detect a vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
4.	<p>The access card system shall have an anti-pass back feature as part of the system.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
5.	<p>Gate will not open if an access card is determined to be invalid by the system. A notification will be given to card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance; a parking office Manager shall answer the intercom from anywhere on the PARCS IP Intercom network. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
6.	<p>A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a Permit Holder's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
7.	<p>The entrance lane gate shall close automatically after the vehicle has passed over the closing detector loop. The circuitry shall be such that the entrance cycle of a vehicle shall be completed before the system will accept the entry of another vehicle through the same lane.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>

Transient & Permit Exit Lanes - Description of General Operation

Item #	Questions and Requests
1.	<p>Express Exit Lane Payments</p> <ul style="list-style-type: none"> a) Lanes equipped with an Exit Station shall enable customers, with valid credit cards, to process their tickets at the exit without first going to the Automated Payment Station to complete the payment process. This is also known as "Express Exit Lane Payment". b) When the lane is open, the lane status light shall display a green status unless overridden by the Manager. c) The Exit Station in the lane shall be inactive when there is no vehicle on the arming loop adjacent to the Exit Station. d) When a vehicle is detected on the arming loop, the Exit Station shall be activated. e) When a customer inserts the parking ticket into an insertion slot on the front of the Exit Station, the lane device will "park" the ticket internally and display amount due and await insertion of the customer's credit card. f) After the customer inserts a valid credit card, the Exit Station verifies that the card is valid and returns the card to the customer. g) After the customer removes the credit card, the Exit Station will submit a credit card charge via communication lines to the central computer or dedicated credit card server. h) Upon approval of the transaction from the host, the Exit Station prints and issues a receipt. i) Upon removal of the receipt, the Exit Station opens the gate to allow the customer to exit. j) When the customer vehicle has passed over and cleared the closing loop, the gate returns to the down position and the Exit Station resets for the next transaction. <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
2.	<p>A Permit parker will utilize their RFID Permit, VCU Prox card, or bar code card to obtain access. All credentials are linked to VCU ID Permit Holder as one account.</p> <ul style="list-style-type: none"> a) Operational sequence of a Permit holder using the RFID affixed Permit sticker: A RFID Permit, located on the windshield of the vehicle, would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would drive slowly into the exit lane and the RFID antenna would automatically obtain the Permit data and determine the current authorization status for access. The valid access Permit would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected, the gate will

	<p>close. Each vehicle must present a valid RFID Permit for the barrier gate to open.</p> <p>b) Operational sequence of a Permit holder using the PROX card: A Permit vehicle would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would present their access card to the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>c) Operational sequence of a Permit holder using the Bar Code card: A Permit vehicle would approach the exit lane loop sensors that would detect the vehicles presence and arm all devices. The driver would swipe their access card at the reader front panel. The reader would obtain the card data and determine the current authorization status for access. The valid access card would cause a signal to be sent to open the barrier gate. The driver would advance the vehicle forward crossing the barrier gate detection loops. Once the vehicle has crossed the loops and presence is no longer detected the gate will close. Each vehicle must present a valid card for the barrier gate to open.</p> <p>(1) The access card system shall have an anti-pass back feature as part of the system.</p> <p>(2) Gate will not open if an access card is determined to be invalid by the system. A notification will be given to card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance; a parking office Manager shall answer the intercom at the parking office. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply.</p>
3.	<p>A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a card's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require.</p> <p>d) The exit lane gate shall close automatically after the vehicle has passed over the closing detector loop. The circuitry shall be such that the exit cycle of a vehicle shall be completed before the system will accept the exit of another vehicle through the same lane.</p>

	T2 Systems Response: T2 Systems acknowledges and will comply.
4.	The access card system shall have an anti-pass back feature as part of the system. T2 Systems Response: T2 Systems acknowledges and will comply.
5.	Gate will not open if an access card is determined to be invalid by the system. A notification will be given to card holder that the card is invalid and an invalid attempt would be recorded to the daily event log. The driver shall press the intercom button for assistance; a parking office Manager shall answer the intercom from anywhere on the PARCS IP Intercom network. The Parking Manager shall be able to confirm whether the system is accurate, informing the driver that the invalid condition is correct and that the driver should back out. The parking office Manager shall have the ability to remotely open the barrier gate from the office. The system shall allow authorized personnel to manually change the status of an access card. T2 Systems Response: T2 Systems acknowledges and will comply.
6.	A card's use at the entry reader shall be retained within the system in an active file for 365 calendar days. It shall be possible to selectively query and print a Permit Holder's activity, a lane's activity and other system data that VCU may review for analysis. Following the 365 days of data retention, the data shall be archived as VCU may require. T2 Systems Response: T2 Systems acknowledges and will comply.
7.	The entrance lane gate shall close automatically after the vehicle has passed over the closing detector loop. The circuitry shall be such that the entrance cycle of a vehicle shall be completed before the system will accept the entry of another vehicle through the same lane. T2 Systems Response: T2 Systems acknowledges and will comply.

Event Parking Reservation and Transaction Processing System

Item #	Questions and Requests
1.	Event Reservation System shall be web based software accessible through Internet Explorer, Firefox, Chrome, and Safari browsers. Include all scheduled Events and data. T2 Systems Response: T2 Event Management (PermitNow) is provided as a component of T2 Flex and resides within the customer's existing database (but as an individual component). T2's eBusiness application (eCommerce) will allow end-users to purchase advance tickets for events.
2.	Ability to operate in real time over cellular wireless and/or VCU hosted wireless network (Wi-Fi).

	<p>T2 Systems Response: T2 is proposing the Motorola MC75a handheld devices. These devices can operate in real time over cellular wireless and/or the University hosted wireless network (Wi-Fi.)</p> <p>T2 Systems acknowledges and will work with VCU if awarded. Some of our customers do not wish to transmit credit card transactions over wireless signals, due to security restrictions. If VCU requires an alternative, some transactions can occur in batch after the parking event is complete.</p>
3.	<p>Ability to communicate data to and from management and staff via handhelds.</p> <p>T2 Systems Response: T2 Flex Event module allows for data to communicate to staff via handhelds. VCU can send event data to handheld computers in the field. Data can be searched independently by the user, to be used when selling parking on location when the event is taking place.</p>
4.	<p>Manage multiple events at multiple rates per event and more than one event at the same time utilizing user friendly interface.</p> <p>T2 Systems Response: The PermitNow/Event handheld software is a comprehensive solution that remains easy for field personnel to use. Unique PermitNow attributes include the following:</p> <ul style="list-style-type: none"> ■ A simple user interface making it easy to use while promoting the longevity of the handheld computer. ■ Make use of multiple parking rates from the handheld. The parking rates are configured in T2 Flex and downloaded to the handheld devices for each event. <p>Users can use multiple payment methods, also configured within T2 Flex and downloaded to the handheld computers for each event.</p>
5.	<p>Onsite payment for VCU event parking may occur 24 hours a day, 7 days a week..</p> <p>T2 Systems Response: T2 Complies. Event parking can be completed with staff present using handhelds to process payments, through automated pay stations, or using pre-printed barcodes with scanners provided with lane devices.</p>
6.	<p>Process vehicles quickly and cashier via handheld mobile units processes high volume of credit cards quickly.</p> <p>T2 Systems Response: Cashiers will be able to process high volumes of credit card transient parking transactions via the handheld mobile units quickly.</p>
7.	<p>PCI Compliance Certification, and/ or PA DSS application certification.</p> <p>T2 Systems Response: T2's credit card solution used with PermitNow is PA-DSS validated. If choosing to process credit cards only in online mode (real time) then no credit card data is ever stored. If choosing to allow acceptance of credit cards offline (batch) then credit card data is encrypted and stored in a PCI compliant manner. Encryption key management and IPG configurations are handled by the T2 Flex Credit Card Configuration Software, and encryption keys</p>

	are managed by the software to support PA-DSS.
8.	<p>Shall not store customer credit card numbers or transactions in the handhelds or system server.</p> <p>T2 Systems Response: T2's credit card solution used with PermitNow is PA-DSS validated. If choosing to process credit cards only in online mode (real time) then no credit card data is ever stored. If choosing to allow acceptance of credit cards offline (batch) then credit card data is encrypted and stored in a PCI compliant manner. Encryption key management and IPG configurations are handled by the T2 Flex Credit Card Configuration Software, and encryption keys are managed by the software to support PA-DSS.</p>
9.	<p>Shall accept payments by cash, real-time credit/ debit card transactions, pre-paid reservations, pre-purchased permits or season ticket parking passes.</p> <p>T2 Systems Response: T2's Event management and PermitNow system accepts the payment methods mentioned above.</p>
10.	<p>Provides two way communications between the server/central office and the handhelds.</p> <p>T2 Systems Response: Two way communications is available between the handhelds and Flex.</p>
11.	<p>Provides backup system in the event of wireless network failure.</p> <p>T2 Systems Response: If the handheld units experience a network outage, revenues can still be collected and receipts can still be printed in offline mode. Once handheld communication is reestablished, transactions will automatically be updated to the server. Transactions are encrypted and held until the next communication session takes place.</p>
12.	<p>Provide management reports and automatic management updates.</p> <p>T2 Systems Response: T2 Systems complies.</p>
13.	<p>Provides access remotely for managers located off-site.</p> <p>T2 Systems Response: Remote access is provided for managers located off-site. Flex is a browser based application.</p>
14.	<p>Tickets issued onsite will be issued in sequential number order and on demand.</p> <p>T2 Systems Response: The PermitNow software on the handhelds will issue tickets/permits in sequential number order and on demand.</p>
15.	<p>System shall use wireless mobile printers for printing paper tickets or receipts.</p> <p>T2 Systems Response: T2 Systems is proposing the Zebra iMX320 wireless printer. The Motorola MC75A will communicate with the printer via Bluetooth communication. The printer will print tickets and receipts.</p>

16.	<p>Provides a VIP module that allows for up to 500 names per event to be treated as VIP giving the Parking Manager the ability to see the patron's name and communicate with the patron or other Parking Managers.</p> <p>T2 Systems Response: T2 Systems offers a reservation/VIP module for your VIP guests. VCU's parking attendant will perform a patron name search on the handheld and is able to view information on the handheld. VCU can configure reservations to be at no charge if applicable.</p>
17.	<p>VIP module shall allow for VIP lists to be modified and updated in real-time.</p> <p>T2 Systems Response: The Reservation/VIP module allows for lists to be updated in real time with an active internet connection.</p>
18.	<p>Provides handheld access to barrier gate control.</p> <p>T2 Systems Response: T2 Systems complies. For facilities that are access controlled by Flex, handheld users can vend the lane gate from the handheld to allow a parker access to the event</p>
19.	<p>Prepare event cashier report by transaction, total revenue and activity per cashier with user specific data of time, date and location</p> <p>T2 Systems Response: T2 Flex will enable VCU to run many event reports. T2 can work with VCU to prepare these reports needed for event management</p>
20.	<p>Communicate cellular wireless and/or Wi-Fi, but shall employ a back-up system that can be employed in the event the wireless network is unavailable.</p> <p>T2 Systems Response: T2 Systems is proposing the Motorola MC75A which can communicate via cellular and/or Wi-Fi. However, T2 strongly recommends using cellular communication. If the handheld units experience a network outage, revenues can still be collected and receipts can still be printed in offline mode. Once handheld communication is reestablished, transactions will automatically be updated to the server. Transactions are encrypted and held until the next communication session takes place.</p>
21.	<p>Shall be accessible to managers that are off-site and need to monitor operations remotely</p> <p>T2 Systems Response: Remote access is provided for managers located off-site. Flex is a browser based application. Managers can monitor events in Flex by running multiple reports and/or checking the event record itself.</p>

1.36 Operating Conditions

Item #	Questions and Requests
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1.	<p>Equipment shall be designed, fabricated, and installed to operate effectively under the climate and conditions to which the equipment will be exposed. In this case the conditions of Richmond, VA. All equipment is for exterior use and will be exposed directly to weather, including cold, heat, rain, snow and ice.</p> <ul style="list-style-type: none"> a. Ambient Temperatures: -10°F to 120°F b. Humidity: 0% to 95% (non-condensing) c. Rain: Blowing Rain & Snow with 100 mph Gusts d. Dust: Blowing dust and fine particles <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>Without excluding other measures necessary to protect the equipment and keep it operating properly, Contractor will provide self-contained heating and cooling devices for the Parking Access & Revenue Control System. If these devices do not operate to VCU's satisfaction within the warranty period, they shall be repaired, replaced or replaced with more effective devices by Contractor at no cost to VCU.</p> <p>It is recognized that certain parking access and revenue control equipment may require special electrical power and grounding considerations. If required for the parking and revenue control equipment provided, the Contractor of the Parking Access & Revenue Control System shall include in the bid amount, the cost to provide and install voltage stabilization modules or devices to protect each component from normal voltage variations.</p> <p>T2 Systems Response: T2 acknowledges and has included such costs</p>

Quality Control

Item #	Questions and Requests
1.	<p>Contractor of the Parking Access & Revenue Control System shall provide an experienced field representative to meet with VCU or its designated Electrical Subcontractor, before any work begins, to review construction plans as they relate to Parking Control Equipment, to explain details or precautions necessary to assure that all parking and revenue control equipment, and in particular, detector loops will work properly and to determine that all required conduits and wiring are properly laid out.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>The Contractor shall assume total responsibility for proper installation and operation of all</p>

	<p>components within the system.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
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Transportation and Handling

Item #	Questions and Requests
1.	<p>Contractor shall be responsible for all transportation, handling and safe storage, including any associated costs, for all equipment and materials. Without limiting the generality of this responsibility, the Contractor shall:</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>Deliver equipment to the site packaged to prevent damage and marked for easy identification.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
3.	<p>Store equipment and materials in a clean, dry location protected from damage.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
4.	<p>Replace damaged equipment and materials at no cost to VCU.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
5.	<p>Where new construction will take place, including construction of new equipment islands, Contractor shall deliver promptly to the site items required to be built into the concrete so they may be built in as the work progresses.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>

1.37 Warranty and Service Agreement

Item #	Questions and Requests
1.	<p>Provide Manufacturer's Warranty</p> <p>a. Warranty on the full Parking Access & Revenue Control System shall be for TWO YEARS, including all labor, materials and expenses. Warranty period shall include all scheduled maintenance and cleaning as recommended by the manufacturer.</p> <p>(1) Warranty shall commence when equipment is 100 percent operational and acceptable to VCU and Consultant, as approved in writing by VCU in accordance with the Acceptance provisions of this RFP. There will be no partial acceptance</p>

	<p>dates; only one final system acceptance date will be established.</p> <p>(2) The warranty service shall include all parts and labor necessary to provide preventative maintenance, repairs and adjustments to keep the full system, including all field devices, central computer, supporting hardware and software, in first class working order for the duration of the service period.</p> <p>(3) Contractor shall provide for troubleshooting and repair of electrical problems from a source located not more than fifty (50) miles from VCU.</p> <p>(4) Business Hours are defined as the period of 0600 ~ -2200, 365 days a year. The designation of Business Hours affects warranty service work only as specifically described in this section.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2 - factory representative for service/maintenance at VCU.</p>
2.	<p>Correction of MAJOR system failures:</p> <p>a. MAJOR system failures shall be defined as device, central computer, communications or software failures that render any lane inoperable or prevent proper accounting and reporting of transactions or revenue.</p> <p>b. Contractor shall maintain all system equipment during the warranty period such that any MAJOR equipment failures shall be serviced and the lane restored to full operation within two (2) business hours following notification by VCU or VCU's designee.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2 - factory representative for service/maintenance at VCU.</p>
3.	<p>Correction of MINOR system failures:</p> <p>a. MINOR system failures include all failures of equipment, software or communications that does not cause the closure of a lane and does not compromise the revenue control integrity of the system.</p> <p>b. Contractor shall maintain all system equipment during the warranty period such that any MINOR equipment failures shall be remedied, within eight (8) Business Hours, following notification by VCU.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2 - factory representative for service/maintenance at VCU.</p>
4.	<p>Failure of the central computer or on-site components of the credit card processing system that renders normal processing of cash transactions or credit card charges inoperable shall be considered a MAJOR failure and shall be remedied within two (2) hours notification if such notification is given within the service period of 0600 ~ 2200. Such failures shall be remedied within three (3) hours of notification if that notification occurs outside of the standard service period. These timeframes shall not apply if the cause of the failure has been clearly identified as a</p>

	<p>system or communication problem at the clearinghouse over which the service provider has no control.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2-factory representative for service/maintenance at VCU.</p>
5.	<p>Service Response Times and Penalties:</p> <ul style="list-style-type: none"> a. Contractor shall respond to any calls for service from VCU or VCU's designee within fifteen (15) minutes of the attempted contact by designated method as long as the attempted contact occurs during Business Hours. b. Contractor shall respond to any calls for service within one hour of attempted contact by the designated method if such contact is initiated outside of Business Hours. c. VCU shall withhold a retainage from the equipment purchase contract in the amount of Ten Thousand Dollars (\$10,000) which shall be paid to Contractor at the expiration of the Warranty Period less deductions at a rate of \$75 per hour for each hour, or fraction of an hour, that Contractor fails to commence service on-site within the above described time limits. The deduction shall also apply to failure to respond to attempted contacts within the one (1) hour time limit prescribed below. d. Contractor shall provide VCU with a means of contact, which will ensure a live (not recorded) response (voice or in person) within fifteen (15) minutes during Business Hours and one (1) hour outside of Business Hours -24 hours a day, 365 days a year. Contractor may utilize a third-party paging service to provide documentation of contact and response times. e. <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2-factory representative for service/maintenance at VCU.</p>
6.	<p>Warranty shall include preventative maintenance cleaning, testing, and minor repair no less than once per calendar quarter or as specified by the equipment manufacturer.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2-factory representative for service/maintenance at VCU. Preventative maintenance costs are included in our proposal pricing.</p>
7.	<p>Warranty shall cover all equipment furnished under this RFP - both manufacture and installation, excluding misuse, vandalism or casualty.</p> <p>T2 Systems Response: T2 acknowledges and complies.</p>
8.	<p>The Proposer must commit to support the PARCS for five (5) years after warranty period. The support shall be the same preventative, routine, and emergency services as previously described. The Proposer shall propose to VCU a base price (first two (2) years) for the maintenance service agreement. For the remaining five (5) years, each subsequent year's price shall be increased over</p>

	<p>the previous year by the Consumer Price Index (CPI-W) up to five-percent (5%). The CPI applied would be the then current CPI on the contract anniversary. Under no circumstance shall the PARCS Contractor's fee for maintenance services be increased more than five-percent (5%) over the previous year. Use of PARCS Contractor provided post-warranty maintenance will be at the sole discretion of VCU.</p> <p>T2 Systems Response: T2 acknowledges and complies.</p>
9.	<p>The PARCS Contractor shall guarantee that VCU's annual maintenance prices shall be protected with continued availability of system components from the manufacture for a five (5) year period. On-site dedicated, full maintenance services shall be at the guaranteed maximum annual cost to VCU. The on-site technicians shall work out of an area provided to the PARCS Contractor at VCU. This includes maintenance service for all equipment and software, and includes but not limited to, spare parts, materials, labor, software, testing equipment, tools, etc. necessary to fully support the PARCS.</p>
10.	<p>Full maintenance shall be available 24 hours a day, 7 days a week, and 365 days a year. The same response times as stated in the Technical RFP shall be maintained throughout the life of the maintenance agreement.</p> <p>T2 Systems Response: T2 acknowledges and complies. Our firm is proposing a dedicated, T2-factory representative for service/maintenance at VCU.</p>
11.	<p>Manufacturer shall warrant that spare parts and service will remain available for a period of not less than ten (10) years from the date of final acceptance. The full service life is not contingent on a service or warranty agreement with the Contractor.</p> <p>T2 Systems Response: T2 acknowledges and complies.</p>

User Group

Item #	Questions and Requests
1.	Does your company offer an annual forum for customers to learn more about the contractor's products and services, offer training classes and network with other customers?

	<p>T2 Systems Response: T2 User Group, one of the largest parking conferences in North America, is an annual event for T2 customers at all levels to join together for industry best practices, product training, release updates, roundtables, and social networking. New organizations receive one (1) free registration to User Group. Sessions are broken down by tracks, tracks for the conference include –</p> <ul style="list-style-type: none"> ■ Front Line Basics ■ Beyond the Basics ■ eBusiness ■ Data Mining ■ Enterprise Solutions ■ PARCS ■ Leadership ■ Handhelds ■ Integration <p>The agenda for the 2014 User Group is being finalized. A copy of the agenda can be provided when finalized.</p>
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1.38 Spare Parts Inventory

Item #	Questions and Requests
1.	<p>Contractor shall provide a recommended inventory of spare parts and equipment as part and included in the cost, of the initial installation. The purpose of such inventory is to provide the capability of repairing a device by replacing the entire device or the failing component from the spare parts Inventory to avoid any delay in making repairs for shipment of replacement items.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. A recommended spare parts listing has been provided in pricing schedules from VCU’s RFP</p>
2.	<p>The cost of each item in the spare parts inventory shall be itemized except that fully assembled components such as read head assemblies shall be considered and priced as single items.</p> <p>T2 Systems Response: T2 Systems acknowledges and will comply. A recommended spare parts listing has been provided in pricing schedules from VCU’s RFP</p>
3.	<p>A list of the spare parts inventory shall be provided as part of the proposal submission for supplying the system and the parts shall be the property of VCU.</p> <p>T2 Systems Response: T2 Systems acknowledges and has provided the requested information/costs.</p>
4.	<p>VCU may elect to store the spare parts inventory on Campus property in a location accessible to personnel designated by Contractor to perform warranty service.</p>

T2 Systems Response: T2 Systems acknowledges and complies

1.39 Software Interface Requirements

Item #	Questions and Requests
1.	<p>The Parking Access & Revenue Control System shall include the following system features that must be capable of interfacing with VCU’s existing Banner System, CBORD and Blackboard systems, and between each module of the system, shall be configured to meet VCU’s business requirements for permit, transient and event parking.</p> <p>VCU reserves the right to award any part or partial of the following modules, and may award to more than one vendor:</p> <ul style="list-style-type: none"> a. Parking Facilities Management System b. Programmable Access Control System c. Automated Transient Parking Payment System d. Web-Based Online Parking Permit System e. Managed Permit Fulfillment Services f. Web-Based Citation Enforcement/Payment System g. Web-Based Event Parking Reservation System h. Secure Credit Card Transaction Processing System <p>T2 Systems Response: T2 Systems acknowledges and complies</p>

Interface

Item #	Questions and Requests
1.	<p>System should accept files in tab delimited, LST, TXT and CSV format from VCU Banner HR, Student, and Finance systems sent by secure file transfer SFTP</p> <p>T2 Systems Response: T2 Systems Flex application prefers files in txt and csv formats. T2 offers SFTP (Secure File Transfer Protocol) which provides an extra layer of security for FTP file transfers. SFTP is essentially a “wrapper” that encrypts the username, password, and content of the files. SFTP offers a very secure channel through which private data can be transmitted. T2 strongly encourages customers that need to transfer files to T2 to use SFTP rather than FTP.</p>
2.	<p>System should create files in tab delimited, LST, TXT and CSV format with the ability to have files picked up from a SFTP location by secure file transfer.</p>

	<p>T2 Systems Response: T2 Systems prefers to create files in txt and csv formats. Files can be picked up from a SFTP location by secure file transfer.</p>
3.	<p>Shall interface with Banner for transactions related to students, faculty and staff. There are three interfaces needed:</p>
4.	
5.	
6.	<p>-Banner student account transactions passed to Banner Accounts Receivable -Banner faculty and staff Human Resource transactions passed to Banner payroll system -Banner financial transaction feeds to Banner finance for non-student, non-faculty/staff payment transactions;</p> <p>T2 Systems Response: T2 Systems can meet all three interfaces needed. Banner is just one of several systems for which T2 has developed interfaces. T2 has worked with Banner for over 10 years and currently has over 70 customers whose parking systems interface with Banner, successfully sharing and making data available within both systems to help their entire organization be more efficient. T2 will have to conduct further requirements to finalize these interfaces.</p> <p>VCU can also determine the frequency of data exchange, from daily to every minute. In other words, the parking office maintains control of its own operation. T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (for example sending citations for student holds and receiving citation payment information from Banner or other system).</p> <p>Banner financial transaction feeds to Banner finance for non-student, non-faculty/staff payment transactions;</p>
7.	<p>Shall have a certified interface with Banner, CBORD and Blackboard for RAM BUCKS account access and access security validation for VCU CARD (RAM BUCKS) based transactions.</p> <p>T2 Systems Response: T2 offers interfaces with Banner, CBORD and Blackboard.</p> <p>Banner Banner is just one of several systems for which T2 has developed interfaces. T2 has worked with Banner for over 10 years and currently has some 70 customers whose parking systems interface with Banner, successfully sharing and making data available within both systems to help their entire organization be more efficient. The benefit to T2 customers is that these interfaces allow parking offices to share data with Banner while still maintaining their own business rules, so they don't have to follow the rules or guidelines of other departments. Customers can also determine the frequency of data exchange, from daily to every minute. In other words, the parking office maintains control of its own operation.</p> <p>T2 customers using either product typically interface one of two ways, 1) batch file transfers or 2) real-time transfers. Batch file transfers are performed automatically. Real-time transfers are done</p>

using Web Services or the Business Object Layer. Interfaces can be done as a one-way transfer (obtaining customer data from Banner or other system) or as a two-way transfer (sending citations for student holds and receiving citation payment information from Banner or other system).

T2 Flex real-time integration with Banner supports:

- Demographics: Banner controls name, address, subclassification, and other demographic information unless a record is marked otherwise.
- Citations: Flex notifies Banner, and Banner responds accordingly.

Blackboard

T2 Flex integration with Blackboard lets students use their Blackboard one-cards as payment cards at:

- T2 Credit Card Entry/Exit Stations
- T2 Automated Pay Stations (both pay-on-foot and pay-in-lane)
- T2 Flex Cashier Stations
- T2 Flex Selection Basket

Refunds, returns, and other manual transactions on Blackboard one-cards must still be performed at the customer card office as usual for Blackboard. Blackboard integration lets ARC POS stations and the Flex Selection Basket take payment via Blackboard cards, but does not include refunding or refilling Blackboard cards.

Processing Blackboard one-card transactions starts like credit card transactions. However, unlike credit card processing, communication to the customer Blackboard Server is handled from the T2 Blackboard Server, not the Credit Card Web Server. The Credit Card Web Server merely relays transaction data to the T2 Blackboard Server.

CBORD

T2 Flex integration with CBORD lets students use their CBORD one-cards as payment cards at:

- T2 Credit Card Entry/Exit Stations
- T2 Automated Pay Stations (both pay-on-foot and pay-in-lane)
- T2 Flex Cashier Stations
- T2 Flex Selection Basket

Refunds, returns, and other transactions on CBORD one-cards must still be performed at the customer card office as usual for CBORD. CBORD integration lets ARC POS stations and the Flex Selection Basket take payment via CBORD cards, but does not include refunding or refilling CBORD cards.

8.	Shall interface at a minimum the Permit Holder database within VCU's PARC system : a) All other systems within the Parking Access & Revenue Control System (Facility Management, Transient Fee Collection, Reporting, Barrier Gates, Access Control, Credit Card System, and Event Management System
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	<p>b) VCU in-house Wi-Fi (IEEE 802.11 a/g/n) system</p> <p>T2 Systems Response: T2 Systems is offering a unified parking management solution/system, therefore, The Permit and Citation Software system and the PARCS Software system reside in one database.</p> <p>T2 would be interested to learn more about the University's intentions to interface the in-house Wifi with the parking management solution. While the enforcement/citation management solution can work with the University Wifi, development with other solutions would be necessary upon final assessment.</p>
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1.40 System Hosting Technical Requirements

Item #	Questions and Requests
1.	<p>VCU will consider Vendor Hosted and VCU Hosted proposals.</p> <ul style="list-style-type: none"> a) Vendor/Contractor Hosted Environment b) VCU Hosted Environment c) Hybrid Hosted Environment <p>T2 Systems Response: T2 Systems is proposing a vendor (T2) hosted solution</p>
2.	<p>If vendor proposes a hosted, Web-based, Software as a Service (SaaS) solution:</p> <ul style="list-style-type: none"> a) All hardware and software required for the solution must be housed in a secure site and vendor must provide a SAS 70 style security report from a third-party reviewer b) Solution must include the services required for installation, integration, testing, and maintenance c) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data d) Solution must provide at minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU e) Solution must run on redundant servers with failover capability f) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery g) Solution must provide Web-based remote and mobile access using any

	<p>industry standard device and browser combination</p> <ul style="list-style-type: none"> h) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding i) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes. j) System outages for maintenance must not be scheduled during normal working hours (Monday ~ Friday, 6am ~ 11pm, EST) k) Solution must provide scalability and adaptability to changing business needs. Customization methodology must be specified. l) User authentication must be LDAP compatible and ideally CAS for VCU administrative access m) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods. <p>T2 Systems Response: T2 acknowledges and complies</p>
3.	<ul style="list-style-type: none"> 1) If vendor proposes a VCU-hosted solution: <ul style="list-style-type: none"> a) Solution must conform to VCU’s architectural standards for operating system, database, server platforms, and user authentication (documentation available on Technology Services’ Web site) b) User authentication must be LDAP compatible and ideally CAS for VCU administrative access c) Solution should be capable of running in a virtual server environment d) Solution must provide VCU the capability to install and integrate the solution with existing systems and data, and manage end-users and data e) Application response time must be demonstrated to not exceed 5 seconds on average to load any system form or display on VCU’s main network (10 Gb/sec) f) Vendor must identify the IT skill-sets required to support the solution g) Solution must provide VCU the scalability, adaptability, and customization ability needed to match evolving business needs and processes. Customization capabilities must be robust and flexible. h) Solution must provide Web-based remote and mobile access using any industry standard device and browser combination i) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data j) Solution must include the services and support required for installation,

	<p>integration, testing, and maintenance</p> <p>Vendor must detail the Total Cost of Ownership over three, five, and ten year periods.</p> <p>T2 Systems Response: T2 acknowledges</p>
4.	<p>2) If vendor proposes a 'hybrid' solution:</p> <ul style="list-style-type: none"> a) Solution must provide subscription-based licensing b) Solution must be a single-tenancy architecture where applications, databases, servers and memory, storage and backups are not shared with multiple tenants c) Solution should provide the convenience and cost-efficiency of a SaaS (software as a service)-based application with the robustness and broad customization functionality of an on premise system. d) Solution must include the services required for installation, integration, testing, and maintenance e) User authentication must be LDAP compatible and ideally CAS for VCU administrative access f) Solution must support Secure Socket Layer (SSL), data encryption during transmission, and security protection features that prevent unauthorized access to VCU data g) Solution must provide minimum daily backups of VCU data with restoration capability to point-in-time or current as required by VCU h) Solution must run on redundant servers with failover capability i) Solution must be monitored by the vendor 24X7 with any outages reported to VCU upon discovery j) Solution must provide the ability to adapt workflow and internal methodologies to existing VCU processes k) Solution must provide Web-based remote and mobile access to all members of VCU community using any industry standard device and browser combination l) Solution must integrate with existing VCU systems and data without requiring additional middleware or custom coding m) Solution must provide administrator-level security access suitable to monitor and manage VCU users, data, workflow, and internal processes n) System outages for maintenance must not be scheduled during normal working hours (Monday ~ Friday, 6am ~ 11pm, EST)

	<p>o) Solution must provide scalability and adaptability to meet changing business needs. Customization methodology must be specified.</p> <p>p) Vendor must detail the Total Cost of Ownership (TCO) over three, five, and ten year periods</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
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Software Upgrades

Item #	Questions and Requests
1.	<p>Copies of all software (and software updates/upgrades made during the warranty period) must be provided to VCU at the conclusion of the warranty period.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>All software and all software updates/upgrades shall be provided to VCU for a minimum of 5 (five) years at no cost, including PCI compliance and/or PA-DSS certified compliant credit card software. The PARCS Contractor shall provide normal software improvement releases (updates when they become available or when delivered to other clients (whichever comes first).</p> <p>T2 Systems Response: T2 acknowledges and complies. As a T2 customer, all software upgrades (aside from customizations) are provided at no additional charge. T2's payment model provides software as an annual subscription with all PCI/software upgrades included.</p>
3.	<p>Where software problems are identified by VCU and are agreed to be minor, that is not affecting the entry/exit functionality, these problems shall be corrected in a new software release to be available to VCU within three (3) months of notification. All upgrades or improvements must be documented, approved and presented to VCU.</p> <p>T2 Systems Response: T2 acknowledges and will make every effort to find solutions for VCU on an expedited timeline. Our normal software releases occur twice (2) a year, and 3 month turnaround for minor issues may be difficult. Still, we would be pleased to negotiated possibilities for compromise.</p>
4.	<p>For major software problems that are defined as those causing erroneous financial transactions, system inability, database corruption, etc., the PARCS Contractor shall correct these identified problems on a priority bases not to exceed two (2) weeks.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
5.	<p>All software patches, updates and upgrades shall be recorded and submitted to VCU.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>

Authentication

Item #	Questions and Requests
1.	<p>Access to functions should be limited by assigned user roles.</p> <p>T2 Systems Response: T2 Flex allows for a wide range of user access control, role-based user management, and security that can vary by module and security level from read-only access to complete insert/edit/delete capability anywhere within the T2 Flex application. Our solution supports profiles for roles, with rights and security privileges based on job needs. Users are assigned a role(s), rather than granting each user individual privileges. When a role changes, the user's privileges are automatically updated.</p>
2.	<p>User ID and password shall be required to access the applications with lockout controls as auto log-off to frequently change passwords.</p> <p>T2 Systems Response: VCU can configure the following requirements regarding passwords used in user authentication at both the login screen and when a password is setup or changed:</p> <ul style="list-style-type: none"> ■ Minimum and maximum number of characters for a valid password. ■ Require mixed capitalization. ■ Require special characters. ■ Require numbers and letters. ■ Require password to be unique from previous passwords. ■ Set the number of previous passwords to compare against. ■ Require password to be changed after a set period of time as determined by the administrator. This may be configured to be turned on or off. ■ Maximum number of incorrect login attempts before User ID is locked out. <p>Set to automatically unlock a locked out user ID after a number of minutes configured by user.</p>
3.	<p>System should allow LDAP and Local account authentication. LDAP will be used for VCU Students, VCU Faculty & Staff. Local accounts will be used for Non-VCU Employees and Non-VCU Event permit requestors.</p> <p>T2 Systems Response: T2 Flex offers the ability to use LDAP authentication, making use of security mechanisms already put in place by your network administrators. Non-VCU Employees can authenticate against the local Flex database.</p>
4.	<p>System should have API's available to allow single sign-on using CAS (Central Authentication</p>

Service). Single sign-on should be usable from any VCU.edu site to the system’s website.

T2 Systems Response: T2 will work with the University’s IT department to implement a single sign on solution for University affiliates using CAS.

Security

Item #	Questions and Requests
1.	<p>Shall provide essential security based on access levels. Functions and screens should not be displayed or accessible unless the user has the necessary level of security. Shall allow for user configuration of role privileges and specific individual overrides of standard role security privileges.</p> <p>T2 Systems Response: T2 Flex allows for a wide range of user access control, role-based user management, and security that can vary by module and security level from read-only access to complete insert/edit/delete capability anywhere within the T2 Flex application. Our solution supports profiles for roles, with rights and security privileges based on job needs. Users are assigned a role(s), rather than granting each user individual privileges. When a role changes, the user’s privileges are automatically updated.</p> <p>In T2 Flex, the chain of custody feature allows you to set up strict inventory control for selected permit number ranges. With strict inventory control implemented, customer service representatives in the parking office have a personal inventory of permits for which they are responsible. They can request new inventory, return existing inventory, or transfer inventory to another customer service representative. A user with special privileges, called the inventory controller, fulfills these requests from the secure area. The ability to restrict cash drawers to single users adds additional visibility into the permit chain of custody.</p> <p>If selected, users with this privilege can override otherwise restricted financial transactions during the check-out process. This option overrides other financial options such as the permit waive amount and citation waive amount. For posting shortages, no matter how small, an override is needed.</p>
2.	<p>Segregation of duties should be an integral internal control, so that a single individual cannot have access to divert resources.</p> <p>T2 Systems Response: VCU will have full control on segregating duties within Flex.</p> <p>Flex’s User Management settings allow VCU to create and manage T2 Flex users and control every element of those users' access to T2 Flex by granting rights in addition to those of their roles.</p>

Credit Card Processing

Item #	Questions and Requests
1.	<p>For the processing of credit card payments, the University is currently utilizing ELAVON Merchant Services Processing Platform.</p> <p>T2 Systems Response: T2 Systems acknowledges.</p>
2.	<p>VCU requires that credit card readers be capable of reading mag stripe products; and VCU will require integration infrastructure for NFC cards and EMV smart card with chip & pin technology.</p> <p>T2 Systems Response: T2 complies and has new equipment to meet the upcoming EMV standards and requirements. T2 completed design work in 2013 and is set to release newly manufactured equipment to clients wanting/requiring EMV readers, by November of 2014.</p>

PARCS DATA MIGRATION

Item #	Questions and Requests												
1.	<p>Contractor shall convert all data in VCU Parking & Transportation Facilities Management's existing Permit system.</p> <p>T2 Systems Response: T2 acknowledges and complies</p> <table border="1"> <thead> <tr> <th>Current Database</th> <th>4.46 GB</th> </tr> </thead> <tbody> <tr> <td>Customer Records</td> <td>89,142</td> </tr> <tr> <td>Vehicle Records</td> <td>167,866</td> </tr> <tr> <td>Addresses</td> <td>135,085</td> </tr> <tr> <td>Permits</td> <td>193,724</td> </tr> <tr> <td>Citations</td> <td>41,914</td> </tr> </tbody> </table>	Current Database	4.46 GB	Customer Records	89,142	Vehicle Records	167,866	Addresses	135,085	Permits	193,724	Citations	41,914
Current Database	4.46 GB												
Customer Records	89,142												
Vehicle Records	167,866												
Addresses	135,085												
Permits	193,724												
Citations	41,914												
2.	<p>Contractor shall be responsible for the importing of existing data on the current system to the new PARC system.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>												
3.	<p>Contractor shall provide a reliable check method to ensure that all required data from the current system export files are passed to the new system</p> <p>T2 Systems Response: T2 acknowledges and complies</p>												

4.	<p>A reference file of the old system account numbers with a link to the new account numbers shall be available in the new system.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
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PARCS Transaction Requirements

Item #	Questions and Requests
1.	<p>Provide qualified staff that shall assist, consult, install, train and oversee the system implementation.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>Provide a documented transition plan with reasonable timeline.</p> <p>T2 Systems Response: T2 wishes to discuss this in more detail with VCU, if considered for award. Our firm would make this project top priority, and work to complete a detailed project plan based on factors for which T2 will need more information.</p> <p>Our group will gather immediately, upon award, to provide a detailed system design and project plan. But in order to finalize, T2 will need to understand any/all project “hurdles” which may be out of our control (student events, desired phased approach, infrastructure timeline for work being completed by VCU, etc). In the end, we will build a reasonable timeline to meet you schedule initiatives and plan the correct amount of resources to meet goals once this discussion has taken place.</p>
3.	<p>Upon award of the RFP, signing of the contract and within ten (10) days of receipt of VCU’s purchase order, the successful Contractor shall provide a complete project timeline to VCU’s Parking & Transportation Facilities Management’s department and VCU’s Purchasing Department.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
4.	<p>Provide integrated implementation process that incorporates on-line tools, on-site and web based technical services and on-site consultation.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
5.	<p>Interface with existing VCU systems: Banner, CBORD and Blackboard, Wi-Fi and the other PARC systems.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
6.	<p>Assist in the development of reports prior to implementation.</p>

	T2 Systems Response: T2 acknowledges and complies
7.	Provide an on-site support member during the launch of the new software to help and monitor any issues that may come up. T2 Systems Response: T2 acknowledges and will comply

1.41 General Equipment Description

RFID Antenna

Item #	Questions and Requests
1.	The RFID Permit shall have an RFID micro circuitry Alien G inlay associated to the Antenna/Reader located at all VCU parking facilities from the PARCS provider. T2 Systems Response: T2 acknowledges and will comply
2.	The UHF RFID Permit inlay shall transmit at a 915MHz, EPC Class 1, GEN 2 and is compliant with ISO 18000-6. T2 Systems Response: T2 acknowledges and will comply
3.	RFID inlays feature Alien (brand) Higgs-3 silicone chips, which feature a 96-bit (24-characters) factory-encoded Tag ID number, 96-bit EPC memory bank and 512-bit User Memory Bank. The EPC and User Memory banks may be utilized for customer specific encoding. T2 Systems Response: T2 acknowledges and will comply
4.	Most of our parking applications utilize the EPC Memory bank, with data encoded to specifications provided by VCU. Custom encoded EPC data usually includes Facility Codes or Prefixes identifying specific lots or garages, followed by sequential Permit Numbers, much like data historically encoded in barcodes. T2 Systems Response: T2 acknowledges and will comply
5.	Custom encoded data may be formatted as 4-bit (hexadecimal) code, 8-bit ASCII code, or decimal values. T2 Systems Response: T2 acknowledges and will comply
6.	Different reader brands and models offer different defaults and/or options governing how data read from tags is interpreted and/or translated. Acceptable manufacturers of the RFID/Antenna are compatible to ISO 18000-6C and EPC Class 1, Gen 2 standards include the following: Nedap uPass TagMaster XT-3

	<p style="text-align: center;">Sirit 4100 Rapid Pass MR6011A</p> <p>T2 Systems Response: T2 acknowledges and will comply, with the use of the Tagmaster XT-3 product.</p>
7.	<p>All RFID Permits must be guaranteed to perform satisfactorily in the heat and not to break in the cold and withstand the general intended use with daily handling and transferring. All printing and numbering on permits shall be provided with sun resistant inks that will remain in good legible condition for a period of one (2) years after permit has been in use on vehicle.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
8.	<p>Contractor to provide 50 TEST samples of RFID Permits to VCU for system testing and compatibility to Antenna/Reader and PARCS network.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
9.	<p>The RFID Inlay memory chip – must hold 60+ blocks of information containing several fields of info per block, i.e., name, address, Permit #, license plate #, etc.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
10.	<p>The RFID Antenna/Reader is designed for vehicle access installations where long range identification in combination with high volume of ID-tags is required.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
11.	<p>Constructed for outdoor use to meet the climate requirements of Richmond, VA. :</p> <ul style="list-style-type: none"> a) Ambient Temperatures: -10°F to 120°F b) Humidity: 0% to 95% (non-condensing) c) Rain: Blowing Rain & Snow with 100 mph Gusts d) Dust: Blowing dust and fine particles <p>T2 Systems Response: T2 acknowledges and will comply</p>
12.	<p>Expandable design capabilities to add additional external RFID Antennas, therefore providing for site configuration flexibility for all VCU installations.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
13.	<p>All-in-one design</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
14.	<p>Network connectivity to PARCS site controller and application software module supporting, TCP/IP, RS232, RS485 and Wiegand/MagStripe protocol.</p> <p>T2 Systems Response: T2 acknowledges and complies with all HID Proximity Reader specifications</p>

	and requirements.
15.	<p>Operating Requirements:</p> <ul style="list-style-type: none"> a) Reading range Up to 6 meters* (20 ft) b) Writing range Up to 5 meters* (16 ft) c) Operating frequencies 902 – 928 MHz d) Power supply 10 to 30 VDC e) Power consumption 8.8 W (max 15 W) f) Memory: Flash/RAM 16 MB /32 MB g) Operating temperature -40 °C (-40 °F) to +60 °C (+140 °F) h) Protection IP 66 - Dust & Moisture Resistant rating i) Universal Mounting hardware required <p>T2 Systems Response: T2 acknowledges and complies with all HID Proximity Reader specifications and requirements.</p>

HID Proximity Card Reader

Item #	Questions and Requests
1.	VCU ID Card is a product of HID that contains a technology combination consisting of 13.56 MHz iCLASS/125 kHz Prox and Magnetic stripe technologies on Track 1, 2, and 3.
2.	PROX Card Reader shall provide for a 4” read range at all entry and exit lane devices unless otherwise noted.
3.	All PROX Readers shall be installed to meet operational expectations of all drivers to VCU parking facility.
4.	PROX Reader shall be designed for weather resistant environments and installed to provide complete functionality.
5.	PROX Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections

T2 Systems Response: T2 acknowledges and complies with all HID Proximity Reader specifications and requirements.

Mag Stripe Reader (Located in Entry or Exit Transient Stations)

Item #	Questions and Requests
1.	VCU ID Card is a product of HID that contains a technology combination consisting of 13.56 MHz iCLASS/125 kHz Prox and Magnetic stripe technologies on Track 1, 2, and 3.
2.	Mag Strip Card Reader shall provide for easy access and swipe or insertion at all transient entry and exit lane devices unless otherwise noted.
3.	All Mag Stripe Card Readers shall be installed to meet operational expectations of all drivers to VCU transient parking facilities.
4.	Mag Stripe Card Reader shall be designed for weather resistant environments and installed to provide complete functionality.
5.	Mag Stripe Card Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections.

T2 Systems Response: T2 acknowledges and complies with all Mag stripe Reader specifications and requirements.

Bar code Reader

Item #	Questions and Requests
1.	VCU ID Card is a product of HID that contains a 3 of 9 Bar Code Technology.
2.	Bar Code Card Reader shall provide for easy access and swipe or insertion at all entry and exit lane devices unless otherwise noted.
3.	All Bar Code Card Readers shall be installed to meet operational expectations of all drivers to VCU parking facilities.
4.	Bar Code Card Reader shall be designed for weather resistant environments and installed to provide complete functionality.
5.	Bar Code Card Reader shall be mounted onto an enclosure to prevent any wire exposure or damage to the network connections.

T2 Systems Response: T2 acknowledges and complies with all HID Proximity Reader specifications and requirements.

Entry Station -Ticket Dispenser (ES)

Item #	Questions and Requests
1.	<p>The Entry Station-ticket dispenser shall be installed at the locations indicated in this RFP and in accordance with the Manufacturer's recommendations. IP Intercoms, where indicated in this RFP, to be provided by the Parking Control Equipment Contractor. The unit shall have a minimum capacity of 4,000 custom printed tickets.</p> <ul style="list-style-type: none"> a) All ticket dispensers shall be on-line to the central computer and shall communicate the operational status of the device and any exception transactions as identified in this section. b) The issue of a ticket shall be controlled by a vehicle presence on a detector loop located in the entry lane adjacent to the ticket dispenser. Upon detection of a vehicle, the Entry Station shall activate a vend button and card reader. A programmable Voice annunciation-digital message feature is required to assist the transient parker. <p>The ticket dispenser shall encode the magnetic stripe on the back of the ticket with a facility code unique to that facility, device ID number, Transaction number, Ticket number, rate/tariff structure, and entry date/time (including the year). The device ID number and entry date/time shall also be printed on the face of the ticket in man-readable format.</p>
2.	<p>Back-Out Ticket:</p> <ul style="list-style-type: none"> a) If the vehicle backs out of the lane after a ticket has been issued, but the ticket remains in the transport opening of the ticket dispenser, the ticket dispenser shall immediately retract that ticket, void the ticket by encoding the magnetic strip, and print "Retracted" or "B/O" on the face of the ticket. b) The ticket dispenser shall then transport the ticket to a bin located in the Entry Station housing for storage of Retracted or Service tickets . c) A message shall be immediately transmitted to the central computer, identifying that ticket sequence number as a "Retracted Ticket." The message shall include the device ID number, date/time of the event, and ticket sequence number.
3.	<p>Stolen Ticket</p> <ul style="list-style-type: none"> a) The ticket dispenser shall contain logic that enables it to detect when a customer backs out of the lane after taking a ticket. The logic is based on the sequence of detection on the three (3) detector loops. b) If a vehicle backs out of the lane after the ticket has been removed from the ticket dispenser, a message shall be immediately transmitted to the central computer, identifying that ticket sequence number as a "Stolen

	<p>Ticket." The message shall include the device number, date/time of the event, and ticket sequence number.</p> <p>c) The gate shall immediately return to the down position and the ticket dispenser shall reset for the next entry transaction.</p>
4.	The time shall be programmable to print in either military or AM/PM format.
5.	<p>The unit shall be provided with heating, cooling, thermostats, etc., as required and of adequate size and tested by the Manufacturer, to ensure satisfactory operation in the environmental conditions at the installed location.</p> <p>a) Ambient Temperatures: -10°F to 120°F</p> <p>b) Humidity: 0% to 95% (non-condensing)</p> <p>c) Rain: Blowing Rain & Snow with 100 mph Gusts</p> <p>Dust: Blowing dust and fine particles</p>
6.	<p>Off-line Operation and Recovery of Transaction Data:</p> <p>a) All ticket dispensers shall be capable of operating independently of the remainder of the system in the event that communication with the central computer is lost. The Entry Station shall maintain an internal record of all normal transactions and ticket serial numbers issued. This data shall be transmitted to the central computer upon the restoration of communication.</p> <p>b) If communication with the central computer is lost, the ticket dispenser shall store a minimum of 200 Stolen Ticket or Back-Out Ticket events that occur during the communication failure. This includes any such events that had not yet been transmitted to the central computer at the time of the communication failure.</p> <p>When communication is restored, the ticket dispenser shall automatically transmit all Stolen and Back-Out ticket transaction information not previously transmitted to the central computer. This transmission shall include the last transaction sequence number transmitted before the communication failure in order to establish continuity. Transmission of this last transaction sequence number shall not affect the accurate summarization of total tickets issued for the purpose of ticket reconciliation.</p>

T2 Systems Response: T2 acknowledges and complies with all Ticket Dispenser specifications and requirements.

Automated Payment Station POF

Item #	Questions and Requests
1.	Automated Payment Stations shall provide the following components and capabilities:
2.	POF Stations will meet all ADA-AG Installation and operating requirements.

3.	POF Stations will accept payment by cash (notes), coin, credit card, debit card, QR barcode device, integrated chip & pin reader, and VCU ID (RAM BUCKS) cards.
4.	Front access door with appropriate 5 point tamper-resistant locking system (each Automated Payment Station to be keyed differently and unique to this installation) and provide alarm contacts upon entry.
5.	POF Cabinet shall be weather resistant to all climates and designed for the specific weather associated with Richmond, VA. It is the Contractor's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather spectrums provided below: <ul style="list-style-type: none"> a) Ambient Temperatures: -10°F to 120°F b) Humidity: 0% to 95% (non-condensing) c) Rain: Blowing Rain & Snow with 100 mph Gusts d) Dust: Blowing dust and fine particles
6.	POF Station will accept and recycle nickels, dimes, and quarters and dispense as required to the parker. All incoming coins will be first placed in the hoppers then to the coin vault within the station.
7.	POF Station will accept notes and escrow One, Five, Ten and Twenty Dollar denominations in any sequence during the transaction. The note acceptor will reject from escrow all damaged notes and shall store all approved incoming notes into the vault.
8.	POF Station shall dispense change in both coin and notes. An integral Note to Note dispenser will contain separate vaults for note storage and will dispense as change back when required. Each denomination will have separate vaults for reloading and real-time management.
9.	POF Station shall accept validation coupons, chaser tickets, or other credential for partial or full payment of parking fee.
10.	Exit Grace Period shall be programmable by parking facility. The Exit Grace Periods shall be programmable by entry ticket location, not by one general facility configuration.
11.	Push-button VOIP intercom integrated into the face of the Pay Station.
12.	Utilize visual instructions for parkers to understand the sequence of events to complete a payment transaction
13.	Issues audio voice annunciation instructions to compliment the visual instructions
14.	Intuitive parker interface monitor/screen with pictographs as necessary to assist the parker through the payment process.

15.	Cancel button that allows a parker to cancel a transaction once a parking ticket has been inserted
16.	All static text shall be in English or other approved language with universal icons and graphics
17.	Parker interface capable of displaying two user-selective languages at a minimum, including English and Spanish.
18.	Colors for the pay stations, all text, and graphics shall be configurable and approved by VCU prior to manufacturing
19.	Integrated and on-line within the PARCS utilizing TCP/IP
20.	Utilizes single-slot technology for ticket and credit card insertion and reading
21.	Inserted credit cards shall be read in all four directions
22.	Illuminated ticket slot
23.	Capable of processing parking fee payments using multiple forms of payment, e.g., any combination of credit card payment, coupon, validation, and VCU ID (RAM BUCKS) cards.
24.	Barcode reader for reading coupons, tickets, and PDA electronic visual display integrated into the face of the Pay Station
25.	Capable of completing on-line, real-time credit card authorization as well as storing offline credit card transactions for uploaded upon re-establishment of communications.
26.	Permit VCU to change the grace time (the number of minutes between the time a ticket is paid and the time a driver exits with vehicle through exit lane)
27.	Log when a cabinet has been opened or closed; password entry required to allow software access; date and time recorded in real-time on the Event Log
28.	<p>Receipt generation</p> <p>Upon successful payment, print a receipt that includes:</p> <ul style="list-style-type: none"> a) VCU address b) VCU telephone number c) Receipt #/Transaction # d) Pay station identification number e) Time, date and lane in f) Time paid g) Length of stay h) Parking fee

	<ul style="list-style-type: none"> i) Sales tax j) Total amount k) Validation Amount l) Method of payment m) Credit card type and last 4 digits of credit card # n) Amount paid o) Change Due p) VCU shall have the option to change receipts for all transactions to be auto issue or by request. The configurable timeout function for receipt request shall be initially set for 20 seconds or until the next ticket is inserted. <p>Receipt Stock Low alarm generated on FMS</p>
29.	<p>As part of their Proposal Response, the Contractor shall submit shop drawings/cut sheets of proposed Automate Payment Stations.</p> <p>T2 Systems Response: T2 acknowledges and complies, and has provided spec sheets in the appendix section of our proposal.</p>

T2 Systems Response: T2 acknowledges and complies with all POF specifications and requirements.

Exit Station (Credit Card Station)

Item #	Questions and Requests
1.	Automated Credit Card Exit Station (no cashier) shall be installed as indicated on the drawings. The Exit Station installation will allow customers to process their entry tickets and pay by credit card or by Frequent Parker Card.
2.	<p>Exit Station Cabinet shall be weather resistant to all climates and designed for the specific weather associated with Richmond, VA. It is the Contractor's responsibility to provide all climate and ambient control devices to maintain operating functionality during the worst of weather spectrums provided below:</p> <ul style="list-style-type: none"> a) Ambient Temperatures: -10°F to 120°F b) Humidity: 0% to 95% (non-condensing) c) Rain: Blowing Rain & Snow with 100 mph Gusts <p>Dust: Blowing dust and fine particles</p>
3.	The Exit Station shall be similar in size to the ticket dispenser.
4.	The Exit Station shall be capable and programmed to perform automated processing of credit card exit transactions and pre-paid tickets. Both modes shall be active simultaneously.

5.	The Exit Station shall include a two-line visual display capable of being programmed to automatically provide visual prompts at each step in the transaction process and for other likely events, such as insertion of the credit card before insertion of the ticket. Minimum character height for the display shall be 3/8 inch.
6.	The Exit Station shall include a programmable/recordable voice annunciation capable of automatically delivering audible message prompts at each step in the transaction process or in response to likely deviations.
7.	The Exit Station shall be equipped with a single slot for accepting tickets and credit cards.
8.	The Exit Station shall be on-line with the central computer and/or credit card server.
9.	The Exit Station shall be capable of functioning in four (4) modes simultaneously: <ul style="list-style-type: none"> a) Mode 1 Processing credit card payment of an entry ticket ("ticket in / credit card out") b) Mode 2 Processing of a pre-paid ticket to open the gate. The ticket can be pre-paid at the Automated Payment Station (POF) or validated for free exit by a ticket validator. c) Mode 3 Processing a Frequent Parker Card transaction for payment of a Frequent Parker Card IN / Frequent Parker Card OUT transaction by use of a Mag stripe card reader, or PROX card reader internal to the Exit Station. d) Mode 4 Processing of an exit credit card transaction that is associated with use of that credit card at the entry ("credit card in / credit card out"), a feature not active with the initial installation.
10.	Described modes 1, 2 and 3 shall be operational at the time of installation. Mode 4 shall be activated upon VCU's request at no cost to VCU.
11.	The Exit Station shall provide the following functionalities under "ticket in / credit card out" mode (MODE 1): <ul style="list-style-type: none"> a) The Exit Station shall be inoperative if no vehicle is detected in the lane. b) When a vehicle is detected in the lane, the Exit Station shall become active. c) The Exit Station shall display "PLEASE INSERT TICKET" as the default screen message and announce "Please insert ticket five (5) seconds after a vehicle arrives on the arming loop. The audible message shall repeat every five (5) seconds until a ticket is inserted or the vehicle backs out of the lane. d) If a customer inserts a credit card into the receiver slot before inserting a ticket, the Exit Station shall provide an audible prompt and screen prompt to "Please insert ticket first." The audible prompt shall repeat every three (3) seconds until the credit card is removed.

	<ul style="list-style-type: none"> e) When the customer inserts a ticket into the receiver slot, the Exit Station shall read the entry date/time and rate code information encoded on the ticket. f) If the ticket is invalid (not for that facility and area; stolen, used or a back-out ticket) the visual display shall display "INVALID TICKET; USE INTERCOM" and the voice annunciation shall announce "Invalid Ticket, Please Use Intercom." g) If the ticket is valid, the Exit Station shall compute the parking fee based on the length of stay and rate code, displaying the fee on the visual display along with the message "FEE \$____ ; INSERT CARD"
12.	<p>Credit Card Transactions:</p> <ul style="list-style-type: none"> a) Upon insertion of the credit card, the Exit Station shall perform a validity check on the number sequence on the card and expiration date to determine if the card valid and is one of the cards accepted at the facility. b) If the encoded information cannot be properly read, the card shall be returned and "INVALID READ; Please Use Intercom" shall display. The voice annunciator shall announce "Invalid read. Please Use Intercom." c) If the card is NOT valid, the message "INVALID CARD. USE OTHER CARD OR CANCEL" shall appear on the visual display and the voice annunciator will announce "PLEASE USE ANOTHER CARD OR PRESS CANCEL." d) If the card is valid, the Exit Station shall return the card to the customer, display a "REMOVE CARD" message on the display and announce "Please remove card" via the voice annunciator. The Exit Station shall not proceed with the transaction until the credit card is removed. The voice annunciator message shall be repeated every three (3) seconds until the card is removed. e) Upon removal of a valid credit card, the Exit Station shall complete the transaction in one of the following two (2) modes as directed by VCU: <ul style="list-style-type: none"> (1) Batch Mode Operation: <ul style="list-style-type: none"> i. If the card is valid, and the amount of the fee is below the established floor limit for the facility: ii. The Exit Station shall complete the transaction by vaulting the ticket, issuing a printed receipt and submitting the transaction information to the central computer. The central computer shall store that information for batch submission to the credit card clearinghouse. iii. After the receipt is removed, the Exit Station shall signal the gate to open. iv. After the vehicle passes over and clears the closing detector loop, the gate shall return to the down position and the Exit Station shall reset for the next transaction. v. If the fee amount is above the established floor limit, the Exit Station or central computer and supporting interface shall establish live

communication with the clearinghouse and submit the charge for an approval number.

- vi. If an approval number is received, the transaction shall be completed in (1) above.
 - vii. If the clearinghouse rejects the charge, the Exit Station shall return the card and display the message "INVALID CARD. USE ANOTHER CARD OR CANCEL." The voice annunciator shall announce "Invalid Card; Please use another card or press cancel"
 - viii. If the customer removes the card and presses the CANCEL button, the ticket shall be returned.
 - ix. If the customer removes the card and backs out of the lane, the Exit Station shall vault the ticket, send a back-out message to the Event Log, and reset for the next transaction.
 - x. If the customer backs out of the lane without removing the card, the card shall be withdrawn into the Exit Station and an alarm sent to the Facility Monitoring System. If the customer inserts another credit card, the Exit Station shall resume the process at the point that the card is checked for validity.
 - xi. If processing of credit card transactions is performed by logic within the lane device, the system shall provide the capability, at VCU's option, to allow credit card transactions to be completed if, within a period of time determined by VCU, communication with the clearinghouse cannot be established or an approval number is not received.
 - xii. Periodically, and no less than once per day, at VCU's option, the central computer shall submit all credit card charges in batch format to the clearinghouse for processing.
 - xiii. Any incomplete rejected charges at that time shall be reported on a Daily Credit Card Activity report and coded as rejected or incomplete, along with complete card identification information that will enable VCU to track and pursue the rejected charge.
- (2) Continuous Open Approval Line:
- i. The Exit Station and supporting system shall be capable of processing with a continuous open line to the clearinghouse, or through a secure internet connection, which would allow instant communication without waiting for the dial-up process. Under this mode of operation the Exit Station shall operate as follows:
 - ii. If the card is valid, the Exit Station shall submit the charge for an approval number to the clearinghouse.
 - iii. If an approval number is received, the Exit Station shall complete the transaction; vault the ticket, issue a receipt, return the credit card, open the exit gate and reset for the next transaction after the vehicle departs and the gate closes.
 - iv. If the clearinghouse rejects the charge, the Exit Station shall return the card and display the message "INVALID CARD. USE OTHER CARD

	<p>OR CANCEL." The voice annunciator shall announce "Invalid Card; Please use another card or press cancel."</p> <ul style="list-style-type: none"> v. If the customer inserts another credit card, the transaction shall resume at the point that the validity of the card is verified. vi. If the customer backs out of the lane, the ticket shall be vaulted, a back-out message sent to the Event Log and the Exit Station reset for the next transaction.
13.	<p>The Exit Station shall provide the following functionalities under "Pre-paid Ticket" mode (MODE 2):</p> <ul style="list-style-type: none"> a) The Exit Station shall be inoperative if no vehicle is detected in the lane. b) When a vehicle is detected in the lane, the Exit Station shall become active. c) The Exit Station shall display "PLEASE INSERT TICKET" as the screen message and announce "Please insert ticket" five (5) seconds after a vehicle arrives on the arming loop. The audible message shall repeat every five (5) seconds until a ticket is inserted or the vehicle backs out of the lane. d) If the customer inserts a ticket that has been validated and the exit time is within the allowable exit period after payment of the fee: <ul style="list-style-type: none"> (1) The Exit Station shall accept the validated ticket and open the exit gate. (2) The Exit Station shall display a "THANK YOU" message until the exiting vehicle clears the gate closing loop.
14.	<p>If the customer inserts a ticket that has not been validated, the Exit Station shall proceed as in MODE 1</p>
15.	<p>If the customer inserts a ticket that has exceeded the allowable exit period following payment of the fee:</p> <ul style="list-style-type: none"> a) The Exit Station shall display the following message: FEE DUE \$(fee) INSERT CREDIT CARD OR PRESS CANCEL
16.	<p>If the customer inserts a credit card, the transaction shall proceed as a credit card transaction for the amount due.</p> <ul style="list-style-type: none"> a) If the customer presents a VCU Card at card reader, the transaction shall proceed as a VCU Card transaction for the amount due. VCU card reader may be internal to Exit Station. b) If the customer presses the CANCEL button, the ticket shall be returned to the customer and the transaction cancelled. The details of the cancelled transaction shall be transmitted to the central computer but no fee amount shall be included as revenue.

	<p>c) When the customer leaves the lane, the Exit Station shall reset for the next transaction.</p>
17.	<p>The Exit Station shall have the capability of processing a VCU Card (MODE 2): VCU card reader may be internal to Exit Station.</p> <p>a) Use of a VCU Card as the mode of payment, the Exit Station shall function in the same manner as a cashier terminal in performing facility code and validity checks.</p> <p>b) If VCU Card fails to meet any of the facility code or validity checks, but is NOT found on the Lost and Stolen list:</p> <p>(1) The display shall read: INVALID CARD INSERT CREDIT CARD OR PRESS CANCEL</p> <p>(2) If the customer inserts a valid credit card, the transaction shall proceed as a credit card transaction.</p> <p>(3) If the customer presses the CANCEL button, the ticket shall be returned and the Exit Station reset for the next transaction when the vehicle presence is no longer detected on the arming loop.</p> <p>c) If VCU Card is found on Lost and Stolen list:</p> <p>(1) The card shall be vaulted and the Exit Station shall display the following message: INVALID CARD CARD RETAINED SEE CASHIER</p> <p>(2) The Exit Station shall return the ticket to the customer and the Exit Station shall reset for the next transaction when the vehicle presence is no longer detected on the arming loop.</p>
18.	<p>1) Off-Line Operation:</p> <p>The Exit Station shall operate in the same manner as the cashier terminal with respect to the processing of both credit card and transactions when a communication failure prevents normal processing with real-time authorizations of credit card charges. This includes queuing of information for a minimum of 5,000 transactions and automatic submission of incomplete transaction information to the central computer upon restoration of communication. It also includes the options available to VCU in selecting the same restrictions and limitations described in this RFP for credit card and VCU Card transactions processed on Cashier Terminals.</p>

T2 Systems Response: T2 acknowledges and complies with all Exit Station specifications and requirements.

Barrier Gates

Item #	Questions and Requests
1.	Barrier Gates shall be UL Approved and labeled on the exterior of the cabinet.
2.	Barrier Gate Cabinet color shall be determined by VCU.
3.	Barrier Gate shall display on the exterior of the cabinet a Model Plate indicating the manufacturers name, address, model number, serial number, main power supply, secondary power supply ratings, and amperage ratings.
4.	The Barrier gate shall provide an effective to one-way vehicles in the entrance and exit lanes. The barrier arm shall retract quickly in a vertical plane on a command signal from the Entry Station - ticket dispenser, Exit Station, RFID Permit reader, card reader, or detector loop depending on location, and return to the lower position upon a signal from a detector ("closing loop") located beyond the gate arm. Electronic sensor switches or variable motor measurement is preferred over mechanical limit switches to control the up and down stopping points of the barrier gate arm.
5.	Barrier Gates may be on-line to the central computer and shall be capable of responding to remote "Raise", "Lower", "Open Lane" and "Close Lane" commands through a network device from the central computer. A real-time status condition is required for all barrier gates.
6.	Barrier Gates shall transmit status messages to the central computer to indicate "UP" and "DOWN" status and gate malfunction or alarm condition.
7.	<p>The Barrier Gate shall be installed as located in the RFP and shall incorporate in one housing all necessary components for the functioning of the unit. The assembly shall operate in the environmental conditions of the installed location.</p> <ul style="list-style-type: none"> a) Ambient Temperatures: -10°F to 120°F b) Humidity: 0% to 95% (non-condensing) c) Rain: Blowing Rain & Snow with 100 mph Gusts <p>Dust: Blowing dust and fine particles</p>
8.	The unit shall include a 10' (ft) arm of reflective aluminum construction. The barrier arm shall be a breakaway design that can be easily be replaced when broken. The height of the gate arm shall be approximately 36 inches from drive level in the DOWN position. Provide and install articulating gate arms where required by low ceiling height.
9.	Each Barrier Gate shall be installed with an audible alarm and a visual warning beacon to warn pedestrians of the moving gate arm.
10.	The Barrier Gate shall remain in the up position so long as a presence is detected on the closing loop.
11.	The Barrier Gate arm shall have a down strike safety feature. This feature provides that should any

	object be struck by the gate arm during its descent, the arm shall immediately reverse and return to the UP position without damage, and remain up from 2 to 60 seconds, until automatically reset by an internal variable control. The sensory function shall be initiated by sensing the internal mechanical action. The external mounting of tubes, wiring, and electrical devices on the gate arm shall not be acceptable.
12.	The Barrier Gate arm shall return to the down position after a programmable period of time if vehicle passage through the gate is not completed and there is no vehicle presence on any detector loops in the lane.
13.	If a Barrier Gate remains in the up position when there are no vehicles detected on the lane loops, the gate shall send an alarm signal to the central computer.
14.	If an entry Barrier Gate remains in the up position for more than sixty (60) seconds without completing a vehicle entry sequence, the gate shall send an alarm signal to the central computer.

T2 Systems Response: T2 acknowledges and complies with all Barrier Gate specifications and requirements.

Uninterruptable Power Supply

Item #	Questions and Requests
1.	A single UPS unit, appropriately sized, shall support all devices at an individual entry lane or exit lane with the exception of cashier booth HVAC units. UPS units that supply conditioned and back-up power to multiple components are required to minimize maintenance.
2.	Conditioned/emergency power through the TCP/IP-enabled UPS units shall be provided for the following components and facilities to protect components from loss of power, power spikes, and power sags: <ul style="list-style-type: none"> a) All Entry Lanes b) All Automated Payment Stations c) All Cashiered Exit Lanes d) All Exit Lanes
3.	UPS battery back-up for all lanes shall be sized to last sixty (60) minutes.
4.	An on-line, solid state UPS shall provide both backup power and transient surge protection. The Contractor is alerted to the fact that there are a number of power distribution panels providing electrical service Campus wide. The Contractor shall be responsible for providing the UPS backup requirements for each of the locations where UPS backup is required, based upon the equipment that is actually being supplied by the Contractor. VCU shall review and approve the UPS units to be provided by the Contractor. The Contractor shall test all UPS system components during the Site

	Acceptance Tests for each parking lane/facility. The UPS shall be sized with a 20% spare capacity minimum.
5.	The UPS shall consist of a power module, storage battery and a battery disconnect switch.
6.	The UPS shall have a lockable weather resistant UL designation suitable for outdoor mounting. a) Ambient Temperatures: -10°F to 120°F b) Humidity: 0% to 95% (non-condensing) c) Rain: Blowing Rain & Snow with 100 mph Gusts Dust: Blowing dust and fine particles
7.	All UPS units shall be SNMP compatible to allow automated notification when battery power is activated or the battery levels become critically low. On-line communication using an appropriate UPS monitoring software application shall be provided on one or more workstations with user selectable options to view the status of each individual installed UPS unit. At a minimum, the monitoring software shall display the operational status of each UPS unit (line/battery, online/offline) and generate alarms in the event the UPS unit's battery power is activated, becomes low or is completely exhausted.
8.	As part of their Proposal, the Contractor shall submit shop drawings of all proposed UPS devices and UPS monitoring software. Included in the UPS shop drawings shall be the manufacturer's recommended battery refresh cycle.

T2 Systems Response: T2 acknowledges and complies with all UPS specifications and requirements. While we have received quotations and pricing for premium units, T2 is open to VCU recommendations for preferred vendor/model

Tickets

Item #	Questions and Requests
1.	Contractor shall provide an initial supply of 500,000 custom printed entry lane tickets. VCU shall provide a breakdown of color and quantity by facility to successful proposer.
2.	The format of the tickets and ticket text shall be submitted to VCU for approval prior to purchase.
3.	Different ticket colors shall be provided for the various parking areas as determined by VCU and the distribution of the initial ticket stock among the various color sets shall be determined by VCU.
4.	In addition to the ticket stock for the ticket dispensers, Contractor shall provide 20,000 exception tickets, cut to individual tickets, in a color different from any of the other ticket stock for this location. These tickets may be used as a validation ticket or temporary multi-day access ticket as pre-programmed by the systems validation unit or Web based program.

5.	Contractor shall provide a list of all ticket manufacturers, along with contact information, who are considered to be certified by the equipment manufacturer and the Contractor, to be acceptable as sources for future ticket stock. Purchase of future tickets shall specifically not be limited to the Contractor and its internal sources. If Contractor is unable to provide an external source for acceptable ticket stock, Contractor shall be obligated to research potential ticket manufacturers to identify an acceptable source.
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T2 Systems Response: T2 acknowledges and complies with all Ticket specifications and requirements. T2 has several regional firms who partner with our customers for bulk ticket purchase and customization.

Validation System

Item #	Questions and Requests
1.	The PARCS shall provide the ability to create, process, and track multiple forms of fee discounts and validations electronically in the system by a web based Validation system and by a ticket recoding stations located on the PARCS network.
2.	The Contractor shall provide an electronic validation system whereby VCU may discount a parker's parking fee by either re-encoding their parking ticket or issuing a magnetically encoded or barcode voucher, or by a web based solution.
3.	Field devices (Entry Stations, Pay Stations, and Express Exit Stations) shall be capable of accepting validations, coupons, and gift cards through the ticket transport or via the external barcode reader.
4.	Validations shall be made for specific dollar amounts (e.g. \$5.00 off), specific durations of time (e.g. two hours free), for the entire parking fee, percentage discount, or reduce the rate structure for an individual ticket.
5.	VCU shall be able to create validations via Validation Stations that are connected to the browser-based PARCS, network and protected by username and password. The Contractor shall be responsible to ensure that the validation stations function in accordance with this RFP even if the validation stations are connected to an existing University computer workstation.
6.	Only users with appropriate authorization shall be able to issue validations and the PARCS shall track all validations for auditing purposes by user, validation date, validation type, and validation amount.
7.	All validations shall be able to be set with an expiration date or time period of validity after which they automatically expire and become invalid in the system.
8.	Three (3) validation stations shall be provided by the Contractor, location to be determined by VCU.

9.	The Contractor shall submit a cut sheet of the proposed Validation Station as part of their Proposal.
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T2 Systems Response: T2 acknowledges and complies with all Validation station specifications and requirements. While T2 does not have a current spec sheet to provide for our validation equipment, our staff would be pleased to produce something for review. Please advise if this will be necessary for initial bid review.

Facility Monitoring and Count/Control System

Item #	Questions and Requests
1.	For the purpose of the description of the functionality in this RFP, the combined facility monitoring and counting functions will be referred to as the Facility Monitoring System (FMS).
2.	The count/control system shall interface between the on-line devices and the central control computer, to provide a complete operating system.
3.	Any interface and control functions involving manual input from a Manager shall be available, with proper password control, at any authorized workstation connected to the system via VCU's network backbone. No interface functions shall be limited to a specific workstation.
4.	<p>The primary functions of the FMS are:</p> <ul style="list-style-type: none"> a) Monitor the status of lane devices. b) Record electronically all system events from all devices. c) Receive and display/announce alarms. d) Send remote SMS or text messages to designated devices for remote alarm management. e) Provide the means to send remote device commands from the central computer via authorized workstations on a Local Area Network (LAN). f) Receive and compile entry and exit counts. g) Compute occupancy and vacancy levels by individual locations and facility-wide. h) Initiate facility or location closures based on current occupancy levels. i) Control and transmit space counts to variable message signs (future). j) Track illegal entries and gate overrides (vehicles passing through the lane with the gate locked in the open position).
5.	<p>Input Device Monitoring: The FMS shall monitor the following input signals at a minimum:</p> <ul style="list-style-type: none"> a) Entrance Lanes b) Lane in service / not in service c) Transient gate vend (Ticket Pull) d) Card access gate vend

	<ul style="list-style-type: none"> e) Stolen Ticket event (ticket pulled but no entry) f) Back-Out event (ticket vend but not removed from dispenser) g) Gate up beyond pre-set time limit h) Gate up with no vehicle present i) Gate out of service j) Tickets low (mechanical switch) k) Tickets out (mechanical switch) l) Manual gate open m) Ticket jam n) Arming loops A + B fail alert o) Ticket issue loop fail alert p) Gate reset loop C fail alert q) Reverse passage (exit through entry lane) Directional Logic Alarm
6.	<ul style="list-style-type: none"> 1) Exit Lanes <ul style="list-style-type: none"> a) Card access gate exit (Card Vend) b) Exit Control Station vend c) Gate up d) Ticket jam e) Gate down f) Gate up beyond pre-set time limit g) Gate loop error (not operating) h) Manual gate opening i) Arming loop failure j) Closing loop failure
7.	<p>Output Control Signals: The FMS shall provide output signals, including the ability to issue remote manual device commands and space counts to variable message signs (future). Remote manual commands shall be available from the central computer and initiated at any authorized workstation on the network backbone only upon entry of an authorized password for the specified remote command function.</p>
8.	<p>Entrance Lanes</p> <ul style="list-style-type: none"> a) Full Sign On/Off (future) b) Gate Vend (Manual Open) c) Gate Override (Continuous Up) d) Gate Reset (Gate Down) <p>Lane Closed (Dispenser On/Off)</p>
9.	<ul style="list-style-type: none"> 2) Exit Lanes <ul style="list-style-type: none"> a) Gate Vend (Manual Open) b) Gate Override (Continuous Up) c) Gate Reset (Gate Down) d) Lane Closed ("Closed" Signs) (future)

10.	<p>FULL Signs and Variable Message Signs</p> <ul style="list-style-type: none"> a) Display OPEN or FULL messages (future) b) Display space available counts (future)
11.	<ul style="list-style-type: none"> 3) The Count/Control System shall provide the following counts: <ul style="list-style-type: none"> a) Transient Differential Count (with holdback feature) Note: Turns on Facility Full Signs (future) b) Facility Total Differential Count c) Differential Count to support Card Access function d) Transient Entrance and Exit Count Non-resettable (by lane) e) Card Access Entrance and Exit Count Non-resettable (by lane -to support possible future activation of Card Access function.) f) Total Vehicle Entrance and Exit Count Non-resettable (by lane) g) Number of Vehicles through Entrance or Exit with Gate Locked in the Up Position, Non-resettable (by lane)
12.	<ul style="list-style-type: none"> 4) Count System Function: <ul style="list-style-type: none"> a) The count system shall maintain a continuous count of vehicles within each of the designated parking facilities. b) Using these counts, the Facility Count component of the Facility Monitoring System shall maintain a continuous, real-time presentation, on a facility count screen, of: <ul style="list-style-type: none"> c) the capacity of each area d) the number of available spaces remaining e) Each of these counts shall be accessible to the Manager for corrections through an authorized workstation. f) The Count System shall provide Upper Limit and Lower Limit controls to control automatic facility closure and re-open functions. g) When the vehicle count for a facility reaches the Upper Limit set by the Manager, the central computer shall automatically close the facility including the following actions: <ul style="list-style-type: none"> h) Disabling of ticket dispensers i) Closure of Traffic Control Gated at the entry points of the garage j) Turning Lane Status Lights to RED k) Changing Lane Control Lights to FULL l) Sending a message update to variable message signs to display FULL m) The facility shall remain “closed” until the count of vehicles in the facility falls below the Lower Limit set by the Manager. At that point the central computer shall return the status of all devices to the normal OPEN condition. n) The Count System shall provide a differential control that allows automatic display of a FULL status on the Variable Message Signs in advance of activation of other facility closure actions. The Manager shall have the capability to set the capacity of a specific number of spaces, programmable and changeable, that will cause the FULL message to be displayed on the Variable Message Signs in advance of activation of full signs at the affected

	<p>facility. The Variable Message Signs shall not return to OPEN status until the Count System has re-activated all lane equipment to normal operating functions.</p> <ul style="list-style-type: none"> o) The Manager shall have the ability to disengage the automatic closure feature for any individual facility or all facilities. p) The Manager shall have the ability to override any automatic open/closure controls from an authorized workstation, including manual change of open/closed status with the accompanying change in the status of the affected devices.
13.	<ul style="list-style-type: none"> 5) The FMS shall provide the following displays and miscellaneous functions on a workstation monitor. <ul style="list-style-type: none"> a) Current Time b) Count System Status c) Capacities by area d) Occupancy by area e) Upper and lower limits f) Open/Closed status by area g) Occupancy and vacancy of entire facility. h) Open/Closed status of entire facility i) Device status for all lane equipment. j) Entrance and Exit Lane Status (Open/Closed) k) Device Status of all Automated Payment Stations (POF) including all vault status and inventory.
14.	<ul style="list-style-type: none"> 6) Hard Copy Functions <ul style="list-style-type: none"> a) The Count/Control System shall be able to output the following information to a system event log printer: b) Alarm Conditions c) Alarms involving entry transactions shall include: <ul style="list-style-type: none"> (1) Date/time (2) Lane number (3) Event code d) Alarms involving exit transactions shall include: e) Date/time f) Lane number g) Event code h) Transaction amount i) Lane Control Actions -including: j) Lane openings k) Lane closings l) Facility and area openings m) Facility and area closures n) Remote commands o) Hourly Count Status of all Counters

	<p>p) Interim Report of All Counters on demand.</p> <p>q) Information printed for all events involving remote commands or manual changing of data or parameters shall include the ID number of the workstation user.</p> <p>r) The specific events that are printed shall be Manager selectable and changeable through an event printing selection screen.</p> <p>s) If the event log printer is disconnected, the count control system shall buffer the above information for a minimum of 24 hours. Beyond 24 hours, stored information shall be deleted on a first-in-first-out basis. With or without the printer connected, all functions of the count control system shall continue to operate.</p> <p>Lane Status Monitoring</p>
15.	The FMS shall monitor each entry and exit lane for the lane status and proper operation of equipment.
16.	<p>The FMS shall provide an audio alarm and screen display such conditions as:</p> <p>a) Ticket Jam in Entry Station-Ticket Dispenser</p> <p>b) Entry Gate malfunction</p> <p>c) Detector Fail</p> <p>d) Exit Gate malfunction</p> <p>e) Low Ticket</p> <p>f) Lane Open/Closed</p> <p>g) Facility Full</p>
17.	The FMS shall continually display occupancy counts by area and facility.
18.	The FMS shall automatically open and close parking areas and their associated entrance lanes utilizing an "Upper Limit / Lower Limit" methodology.
19.	When occupancy in an area reaches a present UPPER LIMIT, the FMS shall automatically close the entry lanes to that area and cause the associated full signs to display "FULL."
20.	The FMS shall monitor exits and automatically reopen the appropriate areas and lanes when the number of vacant spaces reaches a LOWER LIMIT determined by the Manager.
21.	The UPPER and LOWER limits are programmable and changeable by the Manager and intended to prevent confusion at the entrance that can occur if the entrance lanes are re-opened and closed with each exiting vehicle.
22.	The FMS shall allow the Manager to disengage the automatic facility/area closure feature, by area, without impacting the occupancy counts or requiring the input of fictitious capacities to disengage the automatic closure feature.

T2 Systems Response: T2 acknowledges and complies with all FMS/Count System specifications and requirements.

PARCS Central Computer and Software

Item #	Questions and Requests
1.	Should the Vendor propose a local central computer at each campus, including the all system software, the Monroe Campus central computer would be located in the West Broad Street Deck. The central computer for the Medical Center Campus will be located at the 8 th Street Deck.
2.	The Parking Access & Revenue Control System must support a bi-directional interface with VCU Operational Database (VCU-ODB) using ODBC, XML or other mutually agreeable open-standard message protocol to VCU Web portal for real time parking occupancies across the PARCS network. (Within twelve weeks of Notice to Proceed, the Contractor shall develop jointly with VCU and the ODB System Integrator the Interface Control Document (ICD) specifying this interface.)
3.	The central computer shall include all necessary components, peripherals, software and software licenses to provide full support to the Parking Access & Revenue Control System and to facilitate use of the system by the Manager or designated Manager.
4.	Any interface and control functions involving manual input from a Manager shall be available, with proper password control, at any authorized workstation connected to the system via the LAN. No interface functions shall be limited to a specific workstation.
5.	The central computer will be provided by VCU OTS. Contractor shall provide their requirements. Server will be a virtual machine.
6.	The server Operating System will be Windows 2008R2, provided by VCU OTS.
7.	<p>The central computer shall:</p> <ul style="list-style-type: none"> a) Be on-line to all lane devices. b) Perform all necessary monitoring, data collection, data distribution, data compilation, data storage and report generation functions to provide the Manager complete control, accounting and reporting system for the parking facilities. c) Provide the platform for the Facility Monitoring System described in this RFP. d) Initiate automatic synchronization of the clocks in all field devices to the master clock maintained in the central computer at intervals of no less than

	<p>thirty (30) minutes and allow manual initiation of the automatic clock synchronization function.</p> <ul style="list-style-type: none"> e) Provide multi-tasking capabilities which will allow use of the workstation for management and administrative purposes, utilizing standard off-shelf computer programs (e.g. Microsoft WORD, EXCEL, POWERPOINT, ACCESS, PUBLISHER, or similar) without degradation of system performance in processing transactions or generating reports. f) Collect and compile all data related to entry and exit transactions throughout the facility. g) Provide both display and printing capabilities for all screens and reports. h) Interface with the credit card clearinghouse to process credit card transactions. i) Print operational and accounting reports to include, at a minimum: <ul style="list-style-type: none"> (1) Event log (2) With Manager selected events to print including selectable and protected default set (3) Capability to perform immediate print of most recent 50 events or manually selected period. (4) All RFID Permit and VCU ID Card Activity by lane, location, and event query. (5) Starting and ending non-resettable dollar and transaction numbers related to the lane (6) Revenue and transactions by each category at the smallest category increment, including validation accounts (7) Total fee before discount and adjustments (8) Net cash collected (to be accounted for) (9) Incomplete credit card transactions (10) Daily consolidation of revenue and transactions by lane –grouped by lane number (11) Credit card transaction detail reports –by transaction (12) Credit card batch reports for reconciliation (13) Credit card exception reports for incomplete or rejected credit card transactions. (14) Statistical lane volume reports for tracking activity by lane by hour by day of week. (15) Historical facility loading reports (vehicle accumulation) extractable from stored data. Includes the capability of extracting occupancy levels by hour for specific days. (16) Facility for tracking receivables, including incomplete credit card transactions.
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8.	Monthly Reports:
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	<ul style="list-style-type: none"> a) All Access Control activity by query b) Revenue & Access transactions by date and lane c) Transaction volume by lane d) Transaction volume by time of day e) Ticket analysis – distribution by value and length of stay f) Payment Station analysis – statistical transaction analysis related to each Station
9.	Incorporate flexible report configuration capabilities that allow simplified development of specialized reports by Manager.
10.	Allow any and all data fields on a query screen to be used as query criteria.
11.	Allow partial word or wild-card character searches in any data field.
12.	Allow up to three (3) sort criteria using any of the data field on the screen
13.	Allow a search and extraction of data for any contiguous time period using dates and/or date-time combinations as parameters.
14.	Allow any report available in the system to be accurately produced at any time for any date-time period subject to the limitation that reports that require a full day's data for accurate compilation be queried on that basis.
15.	Archive data (6 months of data minimum) on a resident warehouse hard drive.
16.	Provide a utility for archiving data externally on an external electronic media approved by the Manager.
17.	Include a utility for auto-archiving of data based on programmable date criteria (e. g. 180 days old) or automatic archiving on a first-in-first-out basis when the storage space on the primary hard drive reaches 80% of capacity or other level approved by the Manager.
18.	Provide read-only access to data tables for the extraction of data for export to other programs such as Microsoft Excel.
19.	Provide custom report writing and formatting utility which will allow the Manager to format custom reports.
20.	Provide password protection for all access to central computer functions utilizing a full matrix, which allows assignment of access authority to each function on an individual basis and by access groups. The use of access groups is provided as a convenience and shall not restrict assignment of access selections on an individual basis.
21.	Automatic processing of daylight savings time commencing and ending with proper rate

	calculations of parker tickets affected by change in daylight savings time and/or standard time.
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T2 Systems Response: T2 acknowledges the requirements for the Central Computer, but will be proposing a T2 hosted solution which is web-based. Our software will allow the customer access when having login credentials and an internet connection (or cellular with mobile devices)

Work Stations

Item #	Questions and Requests
1.	<p>VCU-OTS will provide, install, connect and test three (3) PC workstations with Windows 8 Operating system located in each Parking Office and one (1) PC workstation located in the PARCS service provider’s office.</p> <ul style="list-style-type: none"> a) One workstation in each Parking Office shall serve as the primary input point for daily control and interface with the central computer. That workstation shall be licensed and authorized to utilize the Parking Access & Revenue Control System software and shall serve as the display position for the Facility Monitoring System. b) The second & third workstation in each Parking Office shall be available for report generation subsystem, compilation, printing, and for other system users. c) The fourth workstation will be in the PARCS service provider’s office and be available for complete support and all programming functions. d) Each workstation shall have Parking Revenue Control client software installed so that it can manage any and all intended functions of the Parking Access & Revenue Control System. Access to specific software functions shall be controlled by username and password logon to the Parking Access & Revenue Control software. e) VCU OTS will provide Windows, Office Professional, and Anti-Virus licenses under its enterprise license agreement.

T2 Systems Response: T2 acknowledges and complies with all Workstation specifications and requirements.

Printers

Item #	Questions and Requests
1.	<p>VCU OTS will provide, install, connect and test one (1) high-output laser printer: One (1) in a designated location in the Parking Office that shall be used as a networked printer for</p>

printing reports from workstations located in the Parking Office.

T2 Systems Response: T2 acknowledges and complies with all Printer specifications and requirements.

Vehicle Detection Loops and Detectors

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

T2 Systems Response: T2 acknowledges and complies with all Vehicle Loop/Detector specifications and requirements.

Intercom System

Item #	Questions and Requests
1.	The Contractor shall provide a turn-key IP intercom system that consists of two host intercom stations and an integrated microphone and speaker in each Entry Station, Express Exit Station, Automated Pay-on-Foot Stations, Permit and VCU Card lanes.

2.	The intercom shall be a push-button intercom such that in the event a parker needs assistance while stopped in a lane, the button can be pushed and a connection established between the field location and any host intercom station.
3.	The intercom system shall utilize VOIP.
4.	The intercom communications shall be directed to a command desk console located in the Parking Office with roll over capabilities to a second base station as designated by VCU. The Parking Office shall be equipped with an intercom base station that displays the physical location of the incoming intercom call.
5.	Once activated, two-way communication shall be possible and the intercom line remains open until the parking staff member terminates the call.
6.	It shall be possible that if one intercom is open, and a second call comes in, the Parking Manager shall be able to place the first call on hold and answer the second call.
7.	As part of their Proposal, the Contractor shall submit shop drawings of the intercom base station and push button intercom terminals.

T2 Systems Response: T2 acknowledges and complies with all intercom specifications and requirements.

EMV & NFC Credit Card Reader Conversions

Item #	Questions and Requests
1.	The reference to credit card readers for use within the PARCS RFP refers to traditional mag stripe credit card acceptance in use today.
2.	It is well documented that a conversion to a secure credit card technology to protect the consumer's data must be implemented by August 2015 and eventually by September 2017 for the Petroleum Industry. Any extensions of these dates within the PARCS application must be approved in writing by VCU.
3.	It is paramount to VCU that the Contractor provides the replacement hardware, software and all technology requirements, including maintaining PCI-DSS Compliance, for all future use, implementation, installation, and PARCS interface of EMV (Chip & Pin) and NFC Payment acceptance devices.
4.	The Contractor shall provide replacement credit card read devices whether it be EMV and/or NFC where required within the PARCS before August 2015, Contractor must also recertify pursuant to PCI Compliance for all payments and all parking applications at the Entry Station, Automated

Payment Stations, and Exit Stations for all methods of credit card payments.
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T2 Systems Response: T2 acknowledges and complies with all EMV specifications and requirements. We have been planning for this change for some time, and have equipment ready for release to customers this fall (2014).

1.42 PCI Compliance/Safeguarding Obligations

Item #	Questions and Requests
1.	<p>If the successful Contractor 's system accepts credit cards for products and services in this RFP utilizing the vendor's own merchant account, the successful Contractor system complies with all applicable Payment Card Industry Data Security Standards ("PCI Standards" and or PA DSS standards) and Contractor shall defend and hold The Board of Trustees of Virginia Commonwealth University, its designated representatives and their officers, agents and employees, harmless from all claims, liabilities, damages, or judgments involving a third party, including costs and attorney fees, which arise as a result of a Contractor's failure to meet any of its obligations under such PCI Standards. Contractor shall fully cooperate with VCU in all reasonable requests related to PCI Standards compliance. Contractor shall submit a copy of its annual certification of PCI or PA DSS compliance or provide a notification of compliance as shown on the Visa's Global Registry of Service Providers-PCI DSS Validated Entities compliance list.</p> <p>T2 Systems Response: While T2 does offer a fully compliant credit card solution; the T2 Flex Solutions we are proposing does not include the Credit Card Solution for accepting credit cards through Flex. Our eBusiness solution will utilize your selected Elavon Internet Payment Gateway (IPG) and process credit cards through the gateway rather than through the Flex application. In addition, T2 has provided our certification in the Appendix section of the proposal</p>
2.	<p>To the extent the Contract which may be awarded by this RFP will allow the Contractor to have access to customer information, as that term is defined in 16 C.F.R. §314.2(b), which is required to be protected under the Gramm-Leach-Bliley Act (15 U.S.C. §6801-6809) as well as credit card information received in the course of business by VCU, then the Contractor agrees to comply with and adhere to the terms and provisions described in General Terms and Conditions which shall form a material part of the awarded Contract.</p> <p>T2 Systems Response: While T2 could not locate a copy of General Terms and Conditions No. 33 to which to agree; please understand that the Flex database is designed to contain parking related data only. During the implementation process, all data provided to T2 will be safe guarded by T2 to the same extent that T2 safeguards data relating to its own business and data. Ongoing, no readily viewable password or credit card data is stored as part of Flex processes. The University Parking Department will have control of what customer data is imported into or stored in Flex as part of its business processes and procedures. If successful in being awarded this contract, T2 will review General Terms and Conditions No. 33 during contract discussions and requests to negotiate if needed.</p>

Credit Card Payments and Compliance Questions

Item #	Questions and Requests
1.	<p>Describe in detail and provide a flowchart of the entire credit card process including all third party appliances and software.</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>
2.	<p>Is the process for credit card processing PCI DSS and/or PA-DSS compliant? Describe your cardholder processing systems' Payment Card Industry (PCI) Payment Application.</p> <p>T2 Systems Response: The T2 credit card solution is PA-DSS validated and T2'hardware and hosting environment are PCI compliant.</p>
3.	<p>Does the implementation, including any required auxiliary servers, store the card holder PAN on VCU hosted servers for any length of time at any time during the credit card payment process?</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
4.	<p>Please provide information on where the University can verify your application and /or payment gateway compliance - on the PCI Standards validated payment applications list or on the Visa's Global Registry of Service Providers –PCI DSS Validated Entities compliance list?</p> <p>T2 Systems Response: The T2 credit card solution is PA-DSS validated and T2'hardware and hosting environment are PCI compliant.</p> <p><i>Proof of T2's PCI Compliance:</i> http://usa.visa.com/merchants/risk_management/cisp_service_providers.html</p> <p><i>Proof of T2's PA-DSS validation:</i> https://www.pcisecuritystandards.org/approved_companies_providers/vpa_agreement.php</p>
5.	<p>For implementation of your solution that includes VCU hosted payment card processing solutions, does your application store card holder PAN on disk located on our network at any time or do you process and transmit cardholder data to a payment gateway?</p>

	<p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
6.	<p>Does your VCU hosted payment card processing solution interface with any other system that would also be hosted on the VCU network that stores cardholder PAN on disk located on our VCU network at any time?</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
7.	<p>For implementation of your solution that includes VCU hosted payment card processing, please provide a detailed diagram that includes the flow of cardholder data from the user entry through your system, out to the payment gateway, and merchant services processor for verification, and back to your application.</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>
8.	<p>For parking lots/decks requiring a payment to park, the mobile web application or native application will provide user the ability to pay via their mobile device. Respondents must specify how the application will meet PCI compliance for payments.</p> <p>T2 Systems Response: : Mobile device payments will not take place on the PARCS network</p>
9.	<p>Describe in detail and provide a flowchart on how the credit card payment is relayed in the system that you are proposing from the handheld devices in remote locations to the PARC system</p> <p>T2 Systems Response: Please see appendix for the T2 Flex System Requirements and Network Architecture Overview document for details and flowcharts of the entire credit card process.</p>

Statement of Work

Item #	Questions and Requests
1.	<p>Provide a Statement of Work outlining tasks to be performed by the respondent, VCU and any third party contractors.</p> <p>T2 Systems Response: Please see Appendix for Implementation Process document which outlines the tasks to be performed.</p>

1.43 Software Licenses

Item #	Questions and Requests
1.	<p>Contractor shall provide client software for installation by VCU OTS on any department workstation. User licenses for commercial software, if required, shall be Concurrent User licenses so that any authorized user can operate the system up to a maximum of six (6) users concurrently.</p> <p>T2 Systems Response: T2 complies, and does not limit the user count for the PARCS software license.</p>
2.	<p>Contractor shall furnish an unlimited software license for the proprietary software developed by or for the Contractor for the operation of the Parking Access & Revenue Control System. This license shall be a site license which allows for the potential movement of equipment, changes in quantities of lanes and other changes which are likely in a University environment. This license shall have no sunset date; rather it shall remain in effect during the useful life of the Parking Access & Revenue Control System as provided and installed under this contract.</p> <p>T2 Systems Response: T2 complies.</p>
3.	<p>Contractor shall assist, if requested, in the installation and testing of all revenue control software on, or licensed to, computers owned by VCU and accessing the system through VCU's communications network.</p> <p>T2 Systems Response: T2 complies.</p>
4.	<p>Contractor grants to VCU an irrevocable, perpetual, nonexclusive, fully paid-up right and license to use, display, copy, and maintain the Software for use in connection with the Parking Access & Revenue Control System, including the right to make back-up copies. Contractor retains all intellectual property rights to the Software.</p> <p>T2 Systems Response: T2 complies.</p>
5.	<p>Source code protection: At VCU's request and sole expense, Contractor will furnish any and all source codes for the Software to a third party to be held in escrow for the benefit of VCU for such period of time as VCU shall determine necessary or appropriate, pursuant to an escrow agreement with the customary terms and conditions, including a provision specifying that, in the event that Contractor, at any time, dissolves, liquidates, ceases to exist, is subject to any insolvency proceeding, or no longer provides the services it provides on the date of execution of this Agreement, the source code will automatically become the property of VCU.</p>

T2 Systems Response: T2 complies.

Updates and Upgrade Questions

Item #	Questions and Requests
1.	<p>How often are version updates to your software typically released?</p> <p>T2 Systems Response: T2 has two (2) general releases per year (spring and fall). In addition there are two (2) maintenance releases per year.</p>
2.	<p>Are version updates included at no additional charge to customers?</p> <p>T2 Systems Response: T2 Flex upgrades are included as part of the subscription agreement.</p>
3.	<p>What responsibilities for software upgrades are assumed by VCU?</p> <p>T2 Systems Response: Coordination with support on timing (T2 hosted)</p>
4.	<p>Supply a copy of your upgrade and development calendar including all hardware and software components, applications and third party services during the next three (3) years</p> <p>T2 Systems Response: Our roadmap and development is based on solid market research and customer feedback. It serves one of our core customer bases –the higher education market, and will continue to evolve based on the needs of customers from higher education.</p> <p>Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs.</p>
5.	<p>What is the expected timeframe for release of the next product version which requires a different platform or an operating system upgrade?</p> <p>T2 Systems Response: T2 has two (2) general releases per year (spring and fall). Typically, new releases do not require a different platform or operating system upgrade.</p>
6.	<p>Have there been major enhancements to the product in the last year, and if so, please describe them?</p> <p>T2 Systems Response: In the last year T2 Systems has rolled out several new enhancements to the PARCS Product. Below are a few:</p> <ul style="list-style-type: none"> ■ PARCS – Multiple Rate Structures

	<ul style="list-style-type: none"> ■ PARCS – Advanced Lane Device Messaging ■ PARCS – POF Distribution Configuration ■ PARCS - LTE Communication ■ CBORD integration ■ Blackboard integration ■ Dashboards- T2 Flex Dashboards allow you to create easy-to-read graphical representations, called widgets, of your organization's real-time Key Performance Indicators (KPIs). When KPIs are readily available in an easy-to-read format, you can confidently make informed decisions about the state of your parking operation. ■ PermitNow online sales- A number of enhancements have been added to the Flex event setup to support a new eBusiness PermitNow event sales process. The online event sales process has been greatly simplified and streamlined. In eBusiness, customers can see all available events on one page and make selections in fewer places without stepping through multiple pages. Anonymous customers can complete the entire permit sales process without having to create a user account or log in to eBusiness. Standard eBusiness authentication is still supported but is no longer required.
7.	<p>List major enhancements planned for the coming year.</p> <p>T2 Systems Response: T2 is dedicated to have multiple releases per year that will both add functionality and upgrade hardware when necessary. These releases will contain market features as well as enhancements identified by our customers. Every year there are two major releases planned along with several minor releases.</p> <p>T2 Systems and development is based on solid market research and customer feedback. Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs.</p> <p>T2 has a great process in place for customer feedback. Each customer has their own customer portal to enter their requests through the T2 website. These are received and will be prioritized by our Product Management group.</p> <p>The T2 Flex road map is constantly evolving. The next release includes mobile enforcement solution on the Android and iOS7 Operating system devices. Sharing future roadmap functionality is considered proprietary and can be shared with VCU upon signing a NDA agreement with T2 Systems.</p>
8.	<p>How many levels of software releases are currently supported?</p> <p>T2 Systems Response: T2 requires all Flex instances hosted by T2 for either production or for testing to be on the current or next most recently released T2 Flex application software version.</p>

9.	<p>What happens if upgrades negatively affect client’s system? What is the plan to restore system to its state prior to the upgrade?</p> <p>T2 Systems Response: Technical support can assist in restoring the system to the prior state if an upgrade were to negatively affect VCU’s system.</p>
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Customization Questions

Item #	Questions and Requests
1.	<p>Describe the customization options (format/ content) of the screens, forms, reports, etc. available in the proposed PARC system for the University.</p> <p>T2 Systems Response: System Settings allow you to configure T2 Flex to more closely match your organization's policies and procedures The My Settings option is the gateway to a number of specific settings that will allow for better control of some display aspects of T2 Flex for each individual user. For example, the ability to rename field names, change the order of fields within a record, or omit fields.</p>
2.	<p>Describe the tools utilized by end-users in the customization process</p> <p>T2 Systems Response: The end user will utilize tools within Flex such as the My Settings feature and Crystal Reports.</p>
3.	<p>Describe the extent of training and programming skills needed to become proficient in customizing the software of the system</p> <p>T2 Systems Response: In order for your staff to work independently and proficiently within Flex, your implementation project plan will have time dedicated for training sessions for this purpose.</p>
4.	<p>Does your company require access to VCU Network 365/24/7? How frequently are updates, patches, etc., normally performed? Please explain.</p> <p>T2 Systems Response: Every day from 5:00 AM until 6:00 AM Eastern. This is the time T2 reserves for urgent work usually related to the repair of failing components or the implementation of critical security patches (like critical/urgent Microsoft and Cisco updates). On average, T2 uses about one of these a week, but the systems are rarely down for the entire hour. Usually it is only minutes while technicians reboot servers to apply patches.</p>

1.44 Third Party Services

Item #	Questions and Requests
1.	<p>List the names of any technology companies that your organization is partnered with, the nature of your relationship, and the value that it brings to your proposed solution and ultimately to our organization.</p> <p>T2 Systems Response: T2 Systems has worked hard to establish partnerships with third party applications. These applications can be used by customers of T2 Systems to enhance their parking experience. T2 is happy to announce the following partnerships:</p> <ul style="list-style-type: none"> ■ Digital Payment Technologies (Pay by Space integration with T2 supported handheld) ■ Cale (Pay By Space) ■ Parkeon (Pay By Space) ■ Transcore ■ Tagmaster ■ Commend ■ Cisco ■ Genetec (AutoVu LPR) ■ Parkmobile (Pay By Cell) ■ PayByPhone (Pay By Cell) ■ QP (Pay By Cell) ■ Weldon, Williams, and Lick (PermitDirect)
2.	<p>Describe your overall approach to developing, testing, implementing, and upgrading system interfaces to 3rd party systems.</p> <p>T2 Systems Response: Our development is based on solid market research and customer feedback. T2 works closely with individual 3rd party services to conduct the testing, implementing and upgrading stages.</p>
3.	<p>Detail any limitations/issues regarding the willingness or ability to interface/integrate the proposed system with other 3rd party automated systems.</p> <p>T2 Systems Response: Our Product Management team is proactively working with Sales and our customers to get their feedback, and conducting market research on new products, features and functions. These are determined and prioritized based on ROI analysis and customer impacts. T2 is committed to providing market-leading solutions that address customer needs. We will work closely with VCU to understand your business process and best practices.</p>
4.	<p>Please indicate if your firm offers an Interface Engine product and/or describe your experience with 3rd party interface engine products and the proposed system.</p>

	<p>T2 Systems Response:</p> <ul style="list-style-type: none"> ■ Web Services — A way to exchange data that is as simple as sending and receiving messages using standard protocols like XML. Through T2’s web services, integration with T2 Flex is simple. ■ T2 Flex task scheduler lets you create and schedule both custom and pre-defined tasks for automatic, unattended execution. Predefined tasks in T2 Flex include (but are not limited to): <ul style="list-style-type: none"> ■ Export data to another system or import data from another system. ■ Import data from another system. ■ Batch update records. ■ Escalate fines and add citation late fees. ■ Add citation late fees. ■ Convert overpayments on citations. ■ Generate letters and notices in print or e-mail format. ■ Create vehicle notifications. ■ Create boot/tow lists. ■ Create scofflaw lists. ■ Create VIP lists. <p>Create files for communication with handheld computers.</p>
5.	<p>If customization is required, describe how this will affect the cost, timeline for development, and support after implementation of the interface.</p> <p>T2 Systems Response: Business processes will be gathered in order to determine the customizations needed to interface with third party services. This will determine cost, timeline for development and support.</p>
6.	<p>VCU shall negotiate contracts directly with any third party service, when VCU is required to sign a contract directly with the third party.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>

1.45 Execution

Inspection

Item #	Questions and Requests
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1.	<p>Inspect setting surfaces, power wiring and conduit installation for equipment and report immediately in writing to VCU, as required in the General Conditions, any conditions of Related Work which are unsuitable for proper execution of this Work.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
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Installation

Item #	Questions and Requests
1.	<p>Install Parking Access & Revenue Control System in accordance with Manufacturer's recommendations and the approved shop drawings.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>Installation shall be by factory-trained technicians experienced in installation of PARCS equipment of this type.</p> <p>Provide and pull all control wire and make final connections of all wiring.</p> <p>T2 Systems Response: T2 Systems Credit Card solution components do not store cardholder data after transactions are complete.</p>
3.	<p>Installation schedules shall be coordinated with VCU representative to minimize disruption to ongoing parking operations. At a minimum, Contractor shall comply with the following limitations with respect to closure of lanes for installation work:</p> <ul style="list-style-type: none"> a) No entry lanes can be out of service in any location between 6 A.M. and 10 A.M. Monday ~ Friday. b) No exit lanes can be out of service in any location between 3 P.M. and 8 P.M. Monday - Friday. <p>T2 Systems Response: T2 acknowledges and complies</p>
4.	<p>Contractor shall provide VCU with an initial Installation Plan and Transition Plan, within 30 days of Notice-to-Proceed, which describes the sequence of equipment changes, installation and lane closures, including the expected duration of closures.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
5.	<p>An updated Installation Plan shall be provided to VCU on Monday of each week. The plan updates shall include a progress report and any proposed changes in the installation sequence or schedule.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
6.	<p>Subject to the operational needs of VCU, Contractor may make adjustments to the Installation Plan through the weekly updates, except that changes occurring within 5 working days of the update shall require specific written permission from VCU.</p>

T2 Systems Response: T2 acknowledges and complies

Factory Acceptance Testing (FAT)

Item #	Questions and Requests
1.	<p>The Contractor shall provide within its proposal a Factory Acceptance Test (FAT) to include a comprehensive testing procedure and test schedule acceptable to VCU, the Consultant and its designated representatives.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
2.	<p>All equipment and associated materials utilized in this system shall be of new manufacture. No used or refurbished materials shall be utilized except in the case of already installed equipment at VCU and then only with VCU's written approval. All equipment shall have successfully passed formal manufacturing tests and quality assurance inspections to validate compliance with the design RFP. Formal records of testing and inspection shall be maintained by manufactures and provided to VCU with the equipment shipment. No equipment shall be installed at VCU that has failed final manufacture's test and inspection performance, materials quality and /or workmanship.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
3.	<p>Because of the significant investment and the critical nature of this system and equipment as it relates to VCU's operational Permit access control, revenue stream and customer satisfaction, it is requested by VCU that the functionality described within this RFP is achieved, the Contractor shall demonstrate the PARCS at their factory or agreed upon site within the continental United States, to be observed by VCU representatives prior to the shipment of equipment to the project site.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
4.	<p>Travel expenses by VCU representatives will not be the responsibility of the Contractor.</p> <p>T2 Systems Response: T2 acknowledges</p>
5.	<p>In addition to the selected Contractor's testing, the Consultant will develop test procedures independently to confirm that the equipment and system installed conforms to the requirements in the RFP. Test results for individual components and the overall system shall meet all technical requirements as stated in the RFP.</p> <p>a) RFID Permit data capture and access control functions of all credentials.</p>

	<ul style="list-style-type: none"> b) Ticket issuance, including alarm and reporting of stolen and back-out tickets. c) Safety reflect & rebound feature of barrier gate arms. d) Processing by the Automated Payment Station of all transaction types in regular and exception categories. Processing shall specifically include testing of stolen and back-out tickets. e) Accurate flow of revenue and transaction data from all transaction types, regular and exception, to the daily and monthly reports. f) Correct application of discounts and validations in each active category. g) Automatic generation and printing of Payment Station vault and bank reports by the central computer. h) Generation of all daily revenue and auditing reports by the central computer. i) Generation and reconciliation of monthly revenue and transaction reports to daily revenue and transaction reports (minimum 3 days). j) Generation of all facility utilization reports. k) Generation of a full report set and verification by the Contractor that all report compilations, calculations, sub-totals and totals are functioning properly. l) Proper operation of the count control system, including directional counting feature, automatic lane closure and automatic lane reopen functions. m) Proper operation of parking control equipment and "FULL" signs during simulated facility "FULL" conditions. n) Proper operation of the intercoms, including sub-station call-down transfers. <p>T2 Systems Response: T2 acknowledges and complies</p>
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Training

Item #	Questions and Requests
1.	<p>Provide eighty (80) hours of on-site instructions to VCU staff. Specific allocation of training time to be determined by VCU.</p> <p>T2 Systems Response: T2 acknowledges and complies, and has accounted for this in our proposal pricing schedules</p>
2.	<p>Instructions shall include but not be limited to, use of Automated Payment Stations, Entry & Exit Stations, use and operations of count system and differential counter configurations, use and operation of barrier gates, use and operation of Validation system, Event Reservation System, control of automatic report generation, production of "on demand" reports, specialized report</p>

	<p>creation, and methods of controlling revenue and auditing tickets available with the system specified.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
3.	<p>Include training and assistance to VCU-OTS with interfacing the Parking Access & Revenue Control System with VCU web site for real time activity posting, as well any other IT issue as it relates to the PARCS. Coordinate schedule with VCU to accommodate shift schedules.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
4.	<p>Provide an additional sixteen (16) hours of on-site training, in any area, at VCU's request, during the first twelve (12) months after system start-up.</p> <p>T2 Systems Response: T2 acknowledges and will comply</p>
5.	<p>Provide an additional eight (8) hours of on-site training, in any area, at VCU's request, within twelve (12) months after system acceptance.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
6.	<p>Contractor shall provide (2) two complete product Service & Support technical manuals on all lane equipment in print and a CD with all in a PDF format.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>
7.	<p>Contractor shall provide (2) two complete PARCS Software Operating & Support technical manuals on all Software modules contained within PARCS in print, and a CD with all manuals in PDF format.</p> <p>T2 Systems Response: T2 acknowledges and complies</p>

Disaster Recovery Plan

Item #	Questions and Requests
1.	<p>The final documentation shall include a disaster recovery plan. The plan shall provide the step-by-step procedures for disaster recovery for each point of failure. These procedures shall be comprehensive.</p> <p>T2 Systems Response: T2 complies. Please see appendix for out Disaster Recovery Plan document.</p>
2.	<p>The first steps shall be in diagnostics. The remaining steps shall provide procedure for resolution in order to bring the system back to full operational status.</p> <p>T2 Systems Response: T2 complies. Please see appendix for out Disaster Recovery Plan document.</p>

3.	<p>Should disaster occur immediately following, or as a result of, a patch or software update the disaster recovery plan shall return the system to the software version in effect prior to the patch or update being applied.</p> <p>T2 Systems Response: T2 complies. Please see appendix for out Disaster Recovery Plan document.</p>
4.	<p>Points of failure shall include each component and sub-components in complex units, such as servers.</p> <p>T2 Systems Response: T2 complies. Please see appendix for out Disaster Recovery Plan document.</p>
5.	<p>The disaster recovery plan shall include requirements for and location of spares.</p> <p>T2 Systems Response: T2 complies. Please see appendix for out Disaster Recovery Plan document.</p>

System Acceptance

Item #	Questions and Requests
1.	<p>The Parking Access & Revenue Control Systems will be considered accepted: After being 100 percent operational and after having performed satisfactorily for thirty (30) continuous business days with no more than six (6) hours of cumulative down time, for all devices combined, which is defined as a mechanical or system malfunction that causes a device to be inoperable. Down time shall be defined as the time between the time that notice of the malfunction is given to Contractor's service representative, or a 24 hour contact point, and restoration of the device or system to full service. When a paging device is the only means of contact, down time shall commence fifteen (15) minutes after initiation of the page regardless of the response, or lack of response, from the service representative.</p> <p>T2 Systems Response: T2 acknowledges and complies, but has some additional discussion points for the intended plan</p>
2.	<p>After demonstration, to the satisfaction of VCU, that all reporting processes are functioning properly and accurately for a full month reporting period, including all month-end reports.</p> <p>T2 Systems Response: T2 acknowledges and complies, but has some additional discussion points for the intended plan</p>
3.	<p>After VCU's authorized representative has signed a formal Letter of Acceptance confirming that these conditions have been satisfied.</p> <p>T2 Systems Response: T2 acknowledges and complies, but has some additional discussion points for the intended plan</p>

1.46 Company Background

Item #	Questions and Requests
1.	<p>List your company's technology and/or distribution alliances and partnerships, including the partner name, address, telephone number, and a brief description of the nature of the relationship.</p> <p>T2 Systems Response:</p> <ul style="list-style-type: none"> ■ Digital Payment Technologies 330-4260 Still Creek Drive Burnaby, BC, V5C 6C6 Canada Phone: 888.687.6822 <p>Partner Solutions: Luke II pay stations and Digital Iris software. Handheld enforcement software with EMS supporting pay stations in pay-by-space or pay-by-plate mode</p> <p>NOTE: In January of 2014, T2 Systems announced the completion of their acquisition of Digital Payment Technologies (DPT), a leader in providing "smart" multi-space pay stations and cloud-based software for the parking industry</p> <ul style="list-style-type: none"> ■ Weldon, Williams & Lick, Inc. 711 N A St Fort Smith, AR 72901 Phone: 479.783.4113 <p>Partner Solutions: Parking permits, hangtags and decals. Permit fulfillment through T2's PermitDirect service.</p> <ul style="list-style-type: none"> ■ Genetec, Inc. 2280 Alfred-Nobel Blvd. Suite 400 Montreal, Quebec, Canada H4S 2A4 Phone: 866.684.8006 <p>Partner Solutions: AutoVu mobile LPR, AutoVu Managed Services. T2 eTicketbook and T2 Flex Permit and Enforcement.</p> <ul style="list-style-type: none"> ■ ParkMobile Parkmobile USA 3200 Cobb Galleria Parkway, Suite 100 Atlanta, GA 30339 Phone: 770.818.9036 <p>Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end</p>

	<p>software supporting pay-by-space or pay-by-plate mode.</p> <ul style="list-style-type: none"> ■ ParkNow 42-40 Bell Blvd, Suite 604 Bayside, NY 11361 Phone: 718.819.2100 <p>Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p> <ul style="list-style-type: none"> ■ QP Corp. 1123 Industrial Road, Suite 200 San Carlos, CA 94070 Phone: 650.290.7763 <p>Partner Solutions: Pay-by-cell solution. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p> <ul style="list-style-type: none"> ■ Cale 3808 Monroe's Business Park TAMPA, FL 33635 Phone: 813.405.3900 <p>Partner Solutions: Cale pay stations and back-end software. Handheld enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p> <ul style="list-style-type: none"> ■ Parkeon 40 Twosome Drive # 7 Moorestown, NJ 08057 Phone: 856.234.8000 <p>Partner Solutions: Strada and CityPal pay stations and MyParkfolio software enforcement software with back-end software supporting pay-by-space or pay-by-plate mode.</p>
2.	<p>List any current or previous regulatory actions against your company or its officials in the past five (5) years. Include the date(s) of action(s) and resolution.</p> <p>T2 Systems Response: None</p>
3.	<p>Has your firm or any of its current officials ever filed for bankruptcy protection?</p> <p>T2 Systems Response: No</p>
4.	<p>Has your firm or any of its current officials ever had tax liens filed in any state or federally?</p> <p>T2 Systems Response: No</p>
5.	<p>Has your firm or any of its current officials had any judgments against it by any taxing authority</p>

	<p>within the past ten (10) years? If so, list the dates, name of authority, and disposition.</p> <p>T2 Systems Response: No</p>
6.	<p>Has your firm been found guilty of any patent or trademark violations in the past ten (10) years? If so, provide complete details including case number and jurisdiction.</p> <p>T2 Systems Response: No</p>
7.	<p>In what state is your firm incorporated and where is its headquarters located?</p> <p>T2 Systems Response: T2 Systems, Inc. is incorporated in the state of Indiana. T2's corporate headquarters is located in Indianapolis, IN.</p>
8.	<p>List any names your firm has previously operated under since beginning operations.</p> <p>T2 Systems Response: T2 has been operating as T2 Systems, Inc. since 1994.</p>

1.47 Financial Proposal

Item #	Questions and Requests
1.	<p>The Financial Summary shall contain complete financial offer made to the University fully describing all aspects of the proposal and the costs including hardware/equipment, Permits, software, software license, support/maintenance/upgrades, customization and modifications, system manuals and documentation, training, data conversion, any transaction and remittance fees as well as professional services to be provided by Contractor and any third party initially and per year beyond those listed in this RFP. Describe in detail the financial proposal you are offering the University for all Products and Services to be provided. Any transaction fees paid by VCU shall be clearly identified.</p> <p>Proposals are requested for University hosted and contractor hosted systems. Each host option should be treated as a separate pricing proposal. In addition to the host options, the University is requesting proposals for all new equipment/ hardware devices and for using the existing equipment/hardware.</p> <p>Each pricing proposal shall include an itemization of all costs to the University.</p> <p>a. Respondents should be creative in presenting various alternatives for providing services at the least possible cost to the University. The University will select the financial option that best meets the overall needs of faculty, staff, and students.</p> <p>b. It is the Respondent's responsibility to verify any information, measurements and obtain any clarifications prior to submitting the bid response. The University is not liable for any errors or misinterpretations made by the Respondent in response to this Solicitation.</p> <p>c. The quoted price involving equipment shall include all necessary accessories to make a complete functioning unit unless specifically stated in the Solicitation.</p> <p>d. Quoted price shall include all travel expense associated with the installation, training and implementation of the system.</p>

- e. What is the discount(s) applied to the cost of the products. Confirm that this is the minimum discount for all product purchases throughout all of the terms of the contract.
- f. Include an example of your firm’s standard software support/maintenance agreement.
- g. If using a third party credit card processor/gateway, detail all credit card transaction fees associated.
- h. Quote hourly rate for work not covered by maintenance agreements

T2 Systems Response: T2 has provided a section titled “Financial Summary”, which provides the details requested in items a-h, above.

References and Implementation Schedule

1) Respondent shall supply names, addresses, and telephone numbers of three (3) business references from the management of other higher education customers for whom the contractor has provided products and services similar in size and complexity to VCU, and to those outlined within the RFP specifications. The Respondent shall grant permission to the University to contact the references. If prior permission is required of the business reference in order to provide this information, the contractor shall obtain permission to include this information with the proposal. For each reference, include:

Name, address, phone number, fax number and email addresses of the Reference similar

- Number of users
- Date of contract commencement
- Go live date with system
- Current version
- Brief description of software & hardware configuration, including number & type of workstations, scanners, printers, & other system components

T2 Systems Response:

T2 CUSTOMER REFERENCES

Company	Contact	Title	Phone	E-mail	# of years as a customer
George Washington University	Ibrahim Aman	Director of Parking Services	(202) 994-9227	ibrahim@gwu.edu	6 Years
George Mason University	Josh Cantor	Director of Parking & Transportation	(703) 993-1239	jcantor1@gmu.edu	14 Years
Harvard University	John Nolan	Managing Director of Transportation and The Campus Service Center	(617) 496-6065	john_nolan@harvard.edu	5 years
Cornell University	Amy Ross	Parking Systems Manager	(607) 254-4781	ar18@cornell.edu	3 Years
Texas A&M University	Peter Lange	Executive Director of Parking & Transportation	(979) 845-9700	plange@tamu.edu	11 Years

- **University of Virginia**
Becca White - Director, Parking and Transportation
 Phone: 434.924.6763

Email: rwc6j@virginia.edu

Number of users: 20

Date of contract commencement: 2000

Go-Live date: 2000

Current version: 7.6

UVA is a unified/enterprise customer using multiple solution components from T2, including PARCS and permit/citation management for the main campus and Medical Center.

T2 Flex modules in use include Citation management, Permit Management, and eBusiness solutions. eBusiness solutions include Permit sales, Citation payments, Citation appeals, My Account and Printable Validations. Additional solutions include Access Control, Revenue Control, Event Management, PermitDirect, Collections, and RoVR (owner look up)

UVA uses 6 Motorola MC9500 handhelds with Zebra printers and Pay by Space integration for Enforcement.

■ **Texas A & M University**

Peter Lange, Executive Director

Phone #: (979) 458-2040

E-mail address: plange@tamu.edu

Number of users: 50

Date of contract commencement: 2003

Go-Live date: 2003

Current version: 7.6

Texas A&M University currently uses the T2 Flex Unified Parking Management Solution which consists of the T2 Flex Permit Management, Enforcement Management, Access Control, and Revenue Control modules. The University has been a T2 customer since 2003 and currently has the T2 Flex solution deployed in eighty-four (84) lanes on campus and in a variety of access only facilities as well as large, multi-use garages. The T2 Flex ARC solutions have been installed at TAMU over the past five years and continue today as they bring on new facilities to the T2Flex solution. TAMU has installed a variety of equipment components in their facilities including ticket dispensers, various credential readers for entry and exit including RFID readers, cashier stations, Pay on Foot machines, and credit card exit stations.

■ **George Mason University**

Josh Cantor - Director, Parking and Transportation

Phone: 703.993.1239

Email: jcantor1@gmu.edu

Number of users: 20

Date of contract commencement: 2000

Go-Live date: 2000

Current version: 7.6

George Mason University is a unified/enterprise customer using multiple solution components from T2, including PARCS and permit/citation management.

T2 Flex modules in use include Citation management, Permit Management, and eBusiness solutions. GMU also utilizes T2 PARCS to manage facilities and lots, with Standard Parking as their operator

GMU uses 12 Motorola MC75 handhelds with O'Neil printers for enforcement.

■ *University of Wisconsin at Madison*

Patrick Kass, Director

Phone #: (608) 262-0746

E-mail address: pkass@fpm.wisc.edu

Number of users: 30

Date of contract commencement: 1994

Go-Live date: 1995

Current version: 7.6

The University of Wisconsin at Madison currently uses the T2 Flex Unified Parking Solution in a T2 hosted environment. The solution in use today consists of the T2 Flex Permit Management, Enforcement Management, Access Control, and Revenue Control modules. The University has been a T2 customer since 1994 and began implementing the T2 Flex ARC solutions in their gated facilities in 2011.

UW Madison and T2 Systems are currently in the process of scoping their 'Phase Three' facilities, which will include the implementation of the T2 Flex ARC solution in five

(5) Additional facilities on campus bringing the total facilities, managed via T2 Flex ARC to thirteen (13). The University has deployed the T2 Flex solution in mixed-use facilities that manage both permitted and transient parkers throughout campus and at their new student union building which also has hotel operations and validations for hotel parkers. They have installed a variety of equipment components in their facilities including ticket dispensers, multiple credential readers for entry and exit including barcode readers, keypads, RFID readers, and proximity card readers; central and in lane cashier stations, Pay on Foot machines, and credit card exit stations.

3) Respondent shall provide an implementation and transition schedule for the proposal submitted.

T2 Systems Response: T2 will provide a final, detailed implementation schedule upon finalization of scope and project award.

In general, T2 Flex Permit Management and Enforcement/Citation Management can be implemented in approximately 90 days from award. If eBusiness (eCommerce) and Event Solutions (PermitNow) is included, the implementation timeline will be closer to 120-140 days. If an award is complete with PARCS components, T2 will work with VCU to implement in a phased approach most desirable to the University.

Upon award, T2 will send a team to work on final scoping/configuration documents and provide a solution design and implementation itinerary.

Other Additional Information

- 1) Please provide any additional information that the Respondent feels should be considered when evaluating their proposal.
- 2) Respondent may present any creative approaches that might be appropriate. The Respondent may also provide supporting documentation that would be pertinent to this RFP.

T2 Systems Response: T2's unique offering has been provided in the "Financial Proposal Summary" section.

Attachments to be included with proposal:

- 1) Your company's insurance certificate(s)
- 2) Security Certification

T2 Systems Response: T2 has provided both documents in the Appendix section of our submittal.



Section 5. Financial Summary

- Overview
- Value Engineering
- Pricing Schedules

FINANCIAL SUMMARY

T2 Systems is pleased to provide the following pricing information in response to VCU's Request for Proposal for a Permit & Citation Management / Parking Access and Revenue Control Solution.

We have attempted to provide comprehensive pricing and licensing information for the University as was requested in this RFP. In an effort to capture all of the various requests we have developed this document for the University's review.

Listed below and included in this section you will find the following information:

- Pricing Offer Notes
- Value Engineering
- RFP Pricing Schedules

Pricing Offer Notes

General

While T2 prefers to engage our prospective customers under more of a design-build environment, the pricing contained in our proposal provides the University with a unique and efficient solution to meet the requirements of its RFP. If considered for award, T2 would be pleased to engage in more detailed discussions to find the best possible solution to manage parking management at VCU.

While T2 understands the University has the option to select multiple vendors for the various components needed, T2 has provided a 20% discount for our overall solution – in hopes VCU will choose a truly unified product. Furthermore, given the large investment to implement such a solution, T2 has provided the first year of software/hosting subscription at a 50% discount in order to lower upfront costs.

We look forward to your feedback on our proposal, and excited at the prospect of a strategic business partnership with VCU.

Software

T2 Systems currently licenses the T2 Flex Parking Management solution that is being on a subscription basis – this annual subscription provides for complete usage of the solution as well as support and maintenance of the solution. The software subscription is billed annually and is subject to annual increases as outlined in our T2 Flex Software Subscription Agreement.

The annual software subscription fees are based on the number of lanes in a given facility as well as the number of devices that are installed in that facility. In addition, there are hosting fees for T2's hosting services that are being proposed – those are billed on a per lane basis.

With the T2 Flex software subscription licensing model expansion to additional facilities is easy - both from a technical perspective as well as alicensing perspective. As you add lanes and devices to your overall usage you will be billed for those additional fees. The traditional software licensing terms from T2 are three (3) years and five (5) years – we are willing to entertain longer licensing terms with the University if desired.

Please let us know if you have any other questions regarding the licensing for the proposed T2 Flex Access and Revenue Control software solution, you will see specific pricing information related to software fees throughout this pricing section.

Warranty/Service

As indicated, the intention of T2 is to staff the project with a T2 factory trained technician under the direct employ of T2. This will extend from the beginning of the installation through the completion of the warranty period. This technician is responsible for the functional oversight of all new T2 PARCS related equipment.

They will be available on-site during the business hours required by VCU. T2 will also provide a toll free service number to the University for all after hours service requests. Once a call is made this number, T2 will commit that the University will receive a phone response within the required time period.

Value Engineering

The proposed solution described in this proposal is based on the technical and operational intentions put forth in the RFP documentation. However, there are some significant ‘adjustments’ that can be made that will provide initial costs savings, long term reduced cost of ownership, and enhanced operational flexibility.

Installation Considerations

There are several components to the actual system installation that would provide short and long term value to the University.

First: The description of the project only includes four (4) facilities configured as mixed use: both permit and transient patrons. Though the balance of the facilities are currently designated as permit (access) only, it would be cost-effective overall should the University elect to consider preparation of other facilities such as Bowe St. garage, the Henry St. garages and Jefferson garages to include wiring and conduit to accommodate transient patrons. Doing that work during the installation of a new PARCS would be much lower in cost than doing same work later on.

Second: Consideration of systemic signage infrastructure, power and data, should take place prior to the installation of a new PARCS. If it is determined that Wayfinding and/or

VMS may be considered in the future, associated electrical and communication work can be done as part of the scope for the PARCS.

Third: Several of the facilities have attendant booths that don't appear to be used. If the intended operation of those facilities does not require such booths, the University may consider removing the booths. The booths can be used in other locations and patron confusion (seeing a booth conveys having an attendant) would be greatly diminished.

Fourth: Several of the locations have portals (entry and exit lanes) with somewhat inadequate lighting. The introduction of new PARCS will require a number of new techniques to be used by patrons. In most instances the new processes will improve customer service. However, as the processes are new, it would be prudent to improve the lighting in the portal areas to make sure there are no visibility issues experienced by the patron.

Fifth: The University could reduce the cost of installation and the impact on the parking operation by allowing concurrent installations: working on multiple facilities at the same time. In addition, the timeframe associated with the introduction of new processes for your patron's is abbreviated.

Equipment Allocation

The RFP document describes several operational components to be considered by the University: specifically in the method of access control. This includes AVI, Proximity, and barcode capability. Note that this is in addition to the lanes that have ticket dispensing capability. From an access control perspective, we would strongly recommend that every lane is configured with the same equipment for access control. This equipment design will lend itself to consistent operation resulting in less confusion by your patrons. In addition, service and training is uniform. Note the equipment allocation in our proposal does include uniform allocation of access devices.

Concerning transient patrons, only four (4) of your facilities would be outfitted for mixed use operation. As indicated above, we would strongly recommend doing the preparation work to accommodate transient equipment in several of the other locations. However, we would like you to consider installing additional equipment in what are intended to be permit only facilities. Based on the traffic patterns observed while we were on site, having the opportunity to accept transients could result in additional revenues. Please note that we are not suggesting compromising permit patron inventory or increasing operational labor. Rather, by installing automated transient equipment, the University could experience enhanced revenue by allowing transient activity during non-peak permit activity.

In the layout of the equipment to be installed in the identified mixed use facilities, there is a number of Pay on Foot machines included. The machines are to be configured to process both cash and credit card transactions, as well as other types of University credentials. We would recommend the University reconsider the method of payment to be used at these machines and consider eliminating cash for these devices.

There are several reasons for such consideration.

- a. Most parking patrons today have at least one active/valid credit card
- b. 85% if all service issues experienced at a POF accepting cash is a result of cash processing
- c. Labor costs associated with accepting cash (shift management, vault retrieval, reloading of devices for change distribution) are virtually 4X the labor costs of credit card only machines.
- d. The price for credit card only machines is significantly less than cash and credit card machine.

The proposal herein does include the cash and credit card machines requested but we would like the University to consider discussing the outfitting of these devices.

In addition to the devices indicated above, we would also recommend the installation of barcode imagers on the lane devices. The barcode imagers can read both print-at-home barcode (both 2D and QR) as well as smart phone display of barcode (both 2D and QR). This design is exceptionally useful in the offering of enhance parking products to your patrons. Special events, meetings, sporting events, contractors, orientation programs, overflow management, single and multiple use validations, and special programs such as handicap patron options can all be accommodated using this equipment. It allows you to have on-line distribution of these products yet still control allocation, use profiles, and audit processes. We have included these devices in our proposal herein.

T2 as Merchant of Record

T2 can offer credit card processing to the University. In short, T2 takes over the responsibility of processing credit cards. T2 is listed as the merchant of record. As such, except for the hands-on labor in your operation, we assume most of the PCI responsibilities associated with the project. This includes the management of the hardware, the management (and updating) of the involved software (both T2 and third party such as MicroSoft and Oracle), the management of the field products, and the connection to the clearing agency and payment channels. The University is charged a processing fee (competitive with other processing fees) but unlike with other processing agents, the University offloads much of the PCI vigilance. Over a period of 10 years, this could result in significant IT and infrastructure savings to the University.

The proposal herein includes the credit card processing requested but we would with to discuss the Merchant of Record option with the University.

RFP Pricing Schedules

Please see the following RFP pricing schedules, as displayed in the Univeristy's RFP:

1.32 Price Format

Permit & Citation Management Purchase Program					
T2 Hosted Service		X			
Product Description	Qty	Program Costs			Delivery Schedule
		Total Initial Purchase	Total Year #2	Total Year #3	
Permit Management Software (subscription package includes citation management software)	1	\$ 15,090.00	\$ 21,126.00	\$ 24,144.00	120 Days
WorkStation License	10	\$ -	\$ -	\$ -	120 Days
Annual Hosting Fee : software and eCommerce application	1	\$ 8,072.00	\$ 11,300.00	\$ 12,915.00	120 Days
Business eCommerce Fee: subscription fees for online Permit Sales, Citation Payments, Citation Appeals, and Account Mangement	1	\$ 2,772.00	\$ 3,880.00	\$ 4,435.00	120 Days
Data Conversion Costs	1	\$ 7,000.00	\$ -	\$ -	120 Days
Banner - CBORD Interface Costs	1	\$ 5,850.00			120 Days
Web Design Service: web development for eCommerce applications - Permit Sales, Citation Payments, Citation Appeals, and Account Mangement	1	\$ 36,050.00	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Installation	1	\$ 40,680.00	\$ -	\$ -	120 Days
Training	1	\$ 16,300.00	\$ -	\$ -	120 Days
Documentation	1	\$ -	\$ -	\$ -	120 Days
Estimated Travel Expenses	1	\$ 6,000.00	\$ -	\$ -	120 Days
Citation Management Software (included with permit management software package)	1	Included Above	\$ -	\$ -	120 Days
Annual Hosting Fee	1	\$ -	\$ -	\$ -	120 Days
WorkStation License	10	\$ -	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Web Design Service	1	\$ -	\$ -	\$ -	120 Days
Other	1	\$ -	\$ -	\$ -	120 Days
Hand Held Citation Devices (includes case and magstripe reader)	12	\$ 37,985.24	\$ -	\$ -	120 Days
HandHeld Software (Enforcement)	12	\$ 4,845.00	\$ 6,783.00	\$ 7,752.00	120 Days
Charging Stations (Single)	2	\$ 377.40	\$ -	\$ -	120 Days
Charging Stations (4 Unit)	4	\$ 1,380.40	\$ -	\$ -	120 Days
Data Interface Stations	4	included	\$ -	\$ -	120 Days
Data Storage Devices	12	included	\$ -	\$ -	120 Days
Replacement Battery	12	\$ 969.00	\$ -	\$ -	120 Days
Replacement 4GB SD Card	12	\$ 86.70	\$ -	\$ -	120 Days
Shipping	1	\$ 200.00	\$ -	\$ -	120 Days
Event Parking Software	1	\$ 1,937.00	\$ 2,712.00	\$ 3,100.00	120 Days
HandHeld Software (Event - credit card software)	12	\$ 3,875.00	\$ 5,425.00	\$ 6,200.00	120 Days
Event Parking Implementation	1	\$ 6,113.00	\$ -	\$ -	120 Days
RFID Permits					
Inside Repositionable Decal	15,000	\$ 13,125.00	\$ 18,375.00	\$ 23,625.00	120 Days
Inside Security Stick Decal	15,000	\$ 13,125.00	\$ 18,375.00	\$ 23,625.00	120 Days
Tri-Plex (Non-RFID) Hang Tags	5,000	\$ 8,750.00	\$ 12,250.00	\$ 15,750.00	120 Days
3rd Party Permit Fulfillment Service	1	\$ 40,000.00	\$ 53,900.00	\$ 69,300.00	120 Days
Total Annual Costs		\$ 270,582.74	\$ 154,126.00	\$ 190,846.00	

1.49 Proposal Price Format - Permit & Transient Decks Only

Schedule A

Lane Equipment Pricing By Location

8th Street Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	HID Prox Reader	Access Control Column w/display (houses prox/barcode /intercom)	Barcode Imager (Omni-D)	Entry Station	Exit Station	Automated Payment Station	Central Cashiering Station	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Lane #1 Entry (D)	1	1	1	1		1	1			1	1	1	1	1
Lane #2 Entry (RV)	1	1	1	1		1	1		1		2	1	1	1
Lane #3 Exit (RV)	1		1	1		1		1			1	1	1	1
Lane #4 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #5 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #6 Exit (RV)	1		1	1		1		1			1	1	1	1
Lane #7 Entry (RV)	1		1	1		1	1		1		2	1	1	1
Total Units	7	2	7	7	0	7	3	4	2	1	9	7	7	7
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 327.00	\$ 3,805.00	\$ 1,425.00	\$ 9,405.00	\$ 11,875.00	\$ 40,850.00	\$ 9,450.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 7,980.00	\$ 11,210.00	\$ 34,580.00	\$ 2,289.00	\$ -	\$ 9,975.00	\$ 28,215.00	\$ 47,500.00	\$ 81,700.00	\$ 9,450.00	\$ 5,508.00	\$ 22,610.00	\$ 12,635.00	\$ -
Equipment Costs	\$ 273,652.00													
Installation Costs	\$ 44,755.00													
Project Management	\$ 16,312.50													
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)													
Concrete Work														
Total Project	\$ 334,719.50													

1.49 Proposal Price Format - Permit & Transient Decks Only

Schedule A

Lane Equipment Pricing By Location

Broad Street Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	HID Prox Reader	Access Control Column w/display (houses prox/barcode /intercom)	Barcode Imager (Omni-D)	Entry Station	Exit Station	Automated Payment Station	Central Cashiering Station	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #2 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #3 Entry (RV)	1	1	1	1		1	1				1	1	1	1
Lane #4 Entry (RV)	1	1	1	1		1	1				1	1	1	1
Lane #5 Exit (RV)	1		1	1		1		1			1	1	1	1
Lane #6 Exit (RV)	1		1	1		1		1			1	1	1	1
Lane #7 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #8 Exit (D)	1		1	1		1		1	2		3	1	1	1
Total Units	8	4	8	8	0	8	4	4	2	0	10	8	8	8
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 327.00	\$ 3,805.00	\$ 1,425.00	\$ 9,405.00	\$ 11,875.00	\$ 40,850.00	\$ 9,450.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 9,120.00	\$ 22,420.00	\$ 39,520.00	\$ 2,616.00	\$ -	\$ 11,400.00	\$ 37,620.00	\$ 47,500.00	\$ 81,700.00	\$ -	\$ 6,120.00	\$ 25,840.00	\$ 14,440.00	\$ -
Equipment Costs	\$ 298,296.00													
Installation Costs	\$ 46,110.00													
Project Management	\$ 18,125.00													
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)													
Concrete Work														
Total Project	\$ 362,531.00													

1.49 Proposal Price Format - Permit & Transient Decks Only

Schedule A

Lane Equipment Pricing By Location

Carey Street Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	HID Prox Reader	Access Control Column w/display (houses prox/barcode /intercom)	Barcode Imager (Omni-D)	Entry Station	Exit Station	Automated Payment Station	Central Cashiering Station	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #2 Entry (RV)	1	1	1	1		1	1				1	1	1	1
Lane #3 Exit (RV)	1		1	1		1		1			1	1	1	1
Lane #4 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #5 Exit (D)	1		1	1		1		1	2		3	1	1	1
Total Units	5	2	5	5	0	5	2	3	2	0	7	5	5	5
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 327.00	\$ 3,805.00	\$ 1,425.00	\$ 9,405.00	\$ 11,875.00	\$ 40,850.00	\$ 9,450.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 5,700.00	\$ 11,210.00	\$ 24,700.00	\$ 1,635.00	\$ -	\$ 7,125.00	\$ 18,810.00	\$ 35,625.00	\$ 81,700.00	\$ -	\$ 4,284.00	\$ 16,150.00	\$ 9,025.00	\$ -
Equipment Costs	\$ 215,964.00													
Installation Costs	\$ 34,800.00													
Project Management	\$ 12,687.50													
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)													
Concrete Work														
Total Project	\$ 263,451.50													

1.49 Proposal Price Format - Permit & Transient Decks Only

Schedule A

Lane Equipment Pricing By Location

Main Street Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	HID Prox Reader	Access Control Column w/display (houses prox/barcode /intercom)	Barcode Imager (Omni-D)	Entry Station	Exit Station	Automated Payment Station	Central Cashiering Station	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #1 Entry (D)	1	1	1	1		1	1				1	1	1	1
Lane #1 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #1 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #1 Exit (D)	1		1	1		1		1			1	1	1	1
Lane #1 Exit (D)	1		1	1		1		1	2		3	1	1	1
Total Units	8	4	8	8	0	8	4	4	2	0	10	8	8	8
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 327.00	\$ 3,805.00	\$ 1,425.00	\$ 9,405.00	\$ 11,875.00	\$ 40,850.00	\$ 9,450.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 9,120.00	\$ 22,420.00	\$ 39,520.00	\$ 2,616.00	\$ -	\$ 11,400.00	\$ 37,620.00	\$ 47,500.00	\$ 81,700.00	\$ -	\$ 6,120.00	\$ 25,840.00	\$ 14,440.00	\$ -
Equipment Costs	\$ 298,296.00													
Installation Costs	\$ 46,110.00													
Project Management	\$ 18,125.00													
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)													
Concrete Work														
Total Project	\$ 362,531.00													

1.49 Proposal Price Format

Pricing - Schedule B

Parking Revenue and Access Control System

Information Technology Equipment Pricing

Equipment	QTY	Unit MSRP	Unit Cost to VCU (w/discounts)	Labor	Total Cost
Revenue Software (3yr Subscription)	24	\$ 3,000.00	\$ 2,150.00	\$ 25,920.00	\$ 77,520.00
Access Software (3yr Subscription)	66	\$ 1,800.00	\$ 1,290.00	\$ 12,960.00	\$ 98,100.00
PARCS Hosting (3yr Subscription)	66	\$ 1,800.00	\$ 1,290.00	\$ -	\$ 85,140.00
Permit Interface Software (included with PARCS software)	1	\$ -	\$ -	\$ -	\$ -
Facility Count Software (included with PARCS software)	1	\$ -	\$ -	\$ -	\$ -
Credit Card Processing Software (included with T2 Hosting)	1	\$ -	\$ -	\$ -	\$ -
Master Intercom System	1	\$ 19,500.00	\$ 16,000.00	\$ 1,600.00	\$ 17,600.00
Software Licence Fees (N/A)	1	\$ -	\$ -	\$ -	\$ -
Source Code Protection (N/A)	1	\$ -	\$ -	\$ -	\$ -
Software Escrow (optional)	1	\$ 3,500.00	\$ 3,500.00	\$ -	\$ 3,500.00
Total				\$	281,860.00

Virginia Commonwealth University
Permit and Citation Management/Parking Access & Revenue Control System
Request for Proposal – #6018303JC

1.49 Proposal Price Format

Pricing - Schedule D	
Parking Revenue and Access Control System	
Training Pricing (above and beyond standard training during install period)	
Training	Cost
80 Hours	\$ 9,375.00
16 Hours	\$ 2,500.00
8 Hours	\$ 1,250.00
Total \$	13,125.00

1.49 Proposal Price Format

Pricing - Schedule E	
Parking Revenue and Access Control System	
Installation Costs	
Location	Cost
MPC Parking Office	\$ -
MCV Parking Office	\$ -
N Deck	\$ 15,340.00
D Deck	\$ 32,310.00
8th Street Deck	\$ 44,755.00
Bowe Street Deck	\$ 20,920.00
Henry Street West Deck	\$ 15,340.00
Henry Street East Deck	\$ 15,340.00
Jefferson Street Deck	\$ 20,920.00
Laurel Street Deck	\$ 9,760.00
West Broad Street Deck	\$ 46,110.00
West Carey Street Deck	\$ 34,800.00
West Main Street Deck	\$ 46,110.00
Broad & Belvidere	\$ 9,760.00
Total	\$ 311,465.00

1.49 Proposal Price Format

Pricing - Schedule F				
Parking Revenue and Access Control System				
Miscellaneous Pricing				
Equipment	QTY	Unit MSRP	Unit Cost to VCU (w/discounts)	Total Cost
Custom Tickets (Box of 5000)	100	\$ 181.00	\$ 143.00	\$ 14,300.00
Custom Validation Tickets (Box of 5000)	4	\$ 181.00	\$ 143.00	\$ 572.00
Service Maintenance - 1st Year: includes dedicated T2 factory direct employee in Richmond for hardware/software support, service, and preventative maintenance	1	\$ 130,000.00	\$ 114,000.00	\$ 114,000.00
Service Maintenance - 2nd Year: includes dedicated T2 factory direct employee in Richmond for hardware/software support, service, and preventative maintenance	1	\$ 130,000.00	\$ 115,000.00	\$ 115,000.00
Freight	1	\$ 54,287.00	\$ 49,736.00	\$ 49,736.00
Total			\$	293,608.00

1.49 Proposal Price Format

Pricing - Schedule G

Parking Revenue and Access Control System

Spare Parts

Equipment	QTY	Unit MSRP	Unit Cost to VCU (w/discounts)	Total Cost
Cash Drawer Cable 1	1	\$ 10.00	\$ 9.50	\$ 9.50
Honeywell Imager Serial Cable	2	\$ 11.55	\$ 10.97	\$ 21.95
Ticket Transport Ribbon	10	\$ 16.00	\$ 15.20	\$ 152.00
Ticket Transport Ink Cartridge	15	\$ 25.00	\$ 23.75	\$ 356.25
Honeywell Barcode imager power supply	2	\$ 34.65	\$ 32.92	\$ 65.84
POF Lost Ticket replacement button	2	\$ 40.00	\$ 38.00	\$ 76.00
Microdrive Articulated Hinge	2	\$ 42.00	\$ 39.90	\$ 79.80
Articulating Gate Arm T-Bracket	2	\$ 123.60	\$ 117.42	\$ 234.84
Articulated Hardware Kit Set	2	\$ 203.94	\$ 193.74	\$ 387.49
HID RP40 Multiclass Reader	2	\$ 200.00	\$ 190.00	\$ 380.00
MicroDrive Breakaway Flange	2	\$ 215.00	\$ 204.25	\$ 408.50
Cash Drawer	1	\$ 280.00	\$ 266.00	\$ 266.00
Standard Fee Display	1	\$ 300.00	\$ 285.00	\$ 285.00
10 ft Straight Gate Arm	2	\$ 500.00	\$ 475.00	\$ 950.00
Ticket Transport Printing Head	2	\$ 325.00	\$ 308.75	\$ 617.50
Dual Loop Detector	2	\$ 180.00	\$ 171.00	\$ 342.00
Bill Recycler Vault	1	\$ 350.00	\$ 332.50	\$ 332.50
Honeywell Barcode imager	2	\$ 500.00	\$ 475.00	\$ 950.00
Articulating Gate Arm	2	\$ 500.00	\$ 475.00	\$ 950.00
Ticket Transport Magnetic Head Assembly	2	\$ 525.00	\$ 498.75	\$ 997.50
IP Intercom Module	2	\$ 744.00	\$ 706.80	\$ 1,413.60

Currenza C2 Coin Recycler	2	\$ 850.00	\$ 807.50	\$ 1,615.00
Bill Recycler Dispensing Cassette (standard plastic bezel)	2	\$ 875.00	\$ 831.25	\$ 1,662.50
Industrial PC	2	\$ 1,200.00	\$ 1,140.00	\$ 2,280.00
Pay on Foot Receipt Printer	2	\$ 1,500.00	\$ 1,425.00	\$ 2,850.00
Credit Card Lane Device Receipt Printer	2	\$ 1,590.00	\$ 1,510.50	\$ 3,021.00
V4 Controller with Enclosure	2	\$ 1,880.00	\$ 1,786.00	\$ 3,572.00
AVI TagMaster XT-3 Reader	1	\$ 2,800.00	\$ 2,660.00	\$ 2,660.00
Microdrive Parking.Pro 10' Barrier Gate	1	\$ 3,630.00	\$ 3,448.50	\$ 3,448.50
Access Control Column	1	\$ 4,150.00	\$ 3,942.50	\$ 3,942.50
Complete Bill Recycler Unit	1	\$ 9,900.00	\$ 9,405.00	\$ 9,405.00
Total				\$ 43,732.76

1.48 Proposal Price Format - Permit Parking Decks Only

Schedule A

Lane Equipment Pricing By Location

Laurel Street Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	Access Control Column w/display (houses prox/barcode/intercom)	HID Prox Reader	Barcode Imager (3D)	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Entry Lane #1	1	1	1	1	1	1	1	1	1	1
Exit Lane #1	1		1	1	1	1	1	1	1	1
	2	1	2	2	2	2	2	2	2	2
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 3,805.00	\$ 327.00	\$ 1,425.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 2,211.60	\$ 5,436.85	\$ 9,583.60	\$ 7,381.70	\$ 634.38	\$ 2,764.50	\$ 1,187.28	\$ 6,266.20	\$ 3,501.70	\$ -
Equipment Costs	\$ 38,967.81									
Installation Costs	\$ 9,760.00									
Project Management	\$ 3,434.21									
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)									
Concrete Work										
Total Project	\$	52,162.02								

1.48 Proposal Price Format - Permit Parking Decks Only

Schedule A

Lane Equipment Pricing By Location

D Deck

Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	Access Control Column w/display (houses prox/barcode/intercom)	HID Prox Reader	Barcode Imager (3D)	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Entry Lane #1	1	1	1	1	1	1	1	1	1	1
Exit Lane #1	1		1	1	1	1	1	1	1	1
Entry Lane #2	1		1	1	1	1	1	1	1	1
Exit Lane #2	1		1	1	1	1	1	1	1	1
Entry Lane #3	1		1	1	1	1	1	1	1	1
Exit Lane #3	1		1	1	1	1	1	1	1	1
Entry Lane #4	1		1	1	1	1	1	1	1	1
Exit Lane #4	1		1	1	1	1	1	1	1	1
Entry Lane #5	1	1	1	1	1	1	1	1	1	1
Exit lane #5	1		1	1	1	1	1	1	1	1
	10	2	10	10	10	10	10	10	10	10
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 3,805.00	\$ 327.00	\$ 1,425.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 11,400.00	\$ 11,210.00	\$ 49,400.00	\$ 38,050.00	\$ 3,270.00	\$ 14,250.00	\$ 6,120.00	\$ 32,300.00	\$ 18,050.00	\$ -
Equipment Costs	\$ 184,050.00									
Installation Costs	\$ 32,310.00									
Project Management	\$ 17,171.05									
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)									
Concrete Work										
Total Project	\$	233,531.05								

1.48 Proposal Price Format - Permit Parking Decks Only

Schedule A

Lane Equipment Pricing By Location										
Jefferson Street Deck										
Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	Access Control Column w/display (houses prox/barcode/intercom)	HID Prox Reader	Barcode Imager (3D)	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Lane #1 Entry (D)	1	1	1	1	1	1	1	1	1	1
Lane #2 Entry (RV)	1		1	1	1	1	1	1	1	1
Lane #3 Exit (RV)	1		1	1	1	1	1	1	1	1
Lane #4 Exit (D)	1		1	1	1	1	1	1	1	1
Lane #5 Exit (D)	1		1	1	1	1	1	1	1	1
Lane #6 Exit (D)	1		1	1	1	1	1	1	1	1
	6	1	6	6	6	6	6	6	6	6
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 3,805.00	\$ 327.00	\$ 1,425.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 6,840.00	\$ 5,605.00	\$ 29,640.00	\$ 22,830.00	\$ 1,962.00	\$ 8,550.00	\$ 3,672.00	\$ 19,380.00	\$ 10,830.00	\$ -
Equipment Costs	\$ 109,309.00									
Installation Costs	\$ 20,920.00									
Project Management	\$ 10,302.63									
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)									
Concrete Work										
Total Project	\$	140,531.63								

1.48 Proposal Price Format - Permit Parking Decks Only

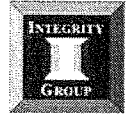
Schedule A

Lane Equipment Pricing By Location										
Laurel Street Deck										
Facility	Red/Green Lane Control Lights	Full Sign	RFID Antenna & Mount	Access Control Column w/display (houses prox/barcode/intercom)	HID Prox Reader	Barcode Imager (3D)	IP Intercom	Barrier Gate	UPS	Duel Loop Detector (incl w/ gate)
Entry Lane #1	1	1	1	1	1	1	1	1	1	1
Exit Lane #2	1		1	1	1	1	1	1	1	1
	2	1	2	2	2	2	2	2	2	2
Unit Costs	\$ 1,140.00	\$ 5,605.00	\$ 4,940.00	\$ 3,805.00	\$ 327.00	\$ 1,425.00	\$ 612.00	\$ 3,230.00	\$ 1,805.00	\$ -
Total Unit Costs	\$ 2,280.00	\$ 5,605.00	\$ 9,880.00	\$ 7,610.00	\$ 654.00	\$ 2,850.00	\$ 1,224.00	\$ 6,460.00	\$ 3,610.00	\$ -
Equipment Costs	\$ 40,173.00									
Installation Costs	\$ 9,760.00									
Project Management	\$ 3,434.21									
Electrical Work	Included w/Installaton costs (based on assesment and average costs determined)									
Concrete Work										
Total Project	\$	53,367.21								



Section 6. Appendix (removed for Proprietary Info)

- T2 Flex System Requirements and Network Architecture Overview
- T2 Hosted Environment – Disaster Recovery Plan
- T2 Systems/Expedient Security (SSAE) Report
- T2 Flex Software Subscription Agreement
- T2 Certificate of Insurance
- Data Conversion Overview
- Implementation Methodology
- Flex Unified Solution – Sample Project Plan (milestones)
- T2 Parking Access & Revenue Control Overview
- T2 Pay-on-Foot Data Sheet
- T2 Ticket Dispenser Data Sheet
- T2 Credit Card Exit Verifier Data Sheet



RFP #6018303JC Negotiations Questions

Original Submission: November 10th, 2014

Revised Submission: December 3rd, 2014



1. Please confirm that if multiple awards are made for RFP #6018303JC, the price offered by T2 for the Permit Database + all other required components necessary to meet the RFP requirements shall remain the same. In addition, confirm that T2 agrees to work collaboratively with the PARCS System contractor on this project.

T2 Response:

The proposed solution is a complete, secure, web-based parking management system. This solution is built on the T2 Flex software platform, fully hosted within our PCI Level 1 compliant private cloud and configured to provide you with an effective, scalable system, uniquely tailored to meet your exact requirements.

The pricing submitted with T2 Systems' initial bid submission (8/6/14) reflects costs for an enterprise award of all components included in VCU's RFP scope requirements. In efforts to provide VCU with a truly unified solution, and create pathway for a strategic business partnership, T2 presented significant discounts to the overall solution price.

Please note the web-based, T2 Flex software can be accessed by users from various locations with internet access (including mobile devices), and is provided at an annual cost based on number of concurrent users (users accessing the system at one time). Therefore, VCU is not restricted to access from specific workstations and such costs do not apply to our pricing submission (line item: "Workstation License").

T2's proposed solution for VCU reflects ten (10) concurrent users. Concurrent User Licenses allow the University staff up to 10 active users access to Flex at any given time. Because our licensing model only limits the number of concurrent active users, VCU may provide login rights to as many users as you like, so long as no more than 10 users access the at the same time. Should the parking department determine there is a need for more than any 10 of your staff members to access Flex at one time, additional concurrent licenses can be added in one

user increments. Additional concurrent users may be added, at your discretion, at a price of \$1,500.00 per user /per year.

Any additional products/services that are not referenced in the T2 Price Proposal will be offered to VCU at a minimum discount of 10%.

Given the University's request for the option to make multiple awards for this project, T2 will submit the following revised pricing options:

Option A: Independent Solution Pricing

- Permit & Citation Management Purchase Program

Option B: Best & Final Enterprise Solution Pricing

- B1: Permit & Citation Management Purchase Program
- B2: Parking Access & Revenue Control System

Option C: Utility Model Pricing - Enterprise Solution

- 3,5,7,10 Year Options

In the event VCU awards the project to multiple vendors, T2 will make every effort to work collaboratively with additional vendors involved. While there may be limitations for system integration with certain PARCS vendors, such as the exchange of revenue data, the T2 Team will be an active/willing participant in making the overall project successful.

2. Explain your proposal cost/purchase structure for the first year to VCU, what must it include, what is to be purchased from another vendor. And for year 2 and 3. Are these to be purchased in the initial contract? VCU to bid commodity & services annually?

T2 Response:

T2's original proposal costs, under a 3 year contract model, includes the following "Year 1" components:

- **Permit & Citation Management Program** (T2 Flex Permit/Enforcement Solution, Event Management Solution, and eBusiness (online) Applications)
 - Year 1 Software Subscription (annual cost)
 - Year 1 Hosting Subscription (annual cost)
 - Handheld Ticket-Writers & accessories (one-time)
 - Professional Services/Implementation Costs (one-time)
 - Project Management
 - Data Conversion
 - Configuration
 - Web Development (eBusiness Applications)

- Interfaces to existing systems (one-time)
- Onsite Training (one-time)
- RFID Permits & Fulfillment (through WW&L)
- **Parking Access & Revenue Control System**
 - Year 1 Software Subscription (annual cost)
 - Year 1 Hosting Subscription (annual cost)
 - PARCS Hardware & Freight
 - Hardware Installation
 - T2 Professional Services/Implementation Costs (one-time)
 - Equipment Commissioning
 - Configuration
 - Testing & Documentation
 - Onsite Training
 - Spare Parts

Years 2&3 costs are comprised of the following products/services:

- Software Subscription (annual cost)
- Hosting Subscription (annual cost)
- RFID Permits & Fulfillment (through WW&L)
- PARCS Normal Business-Hours Service & Preventative Maintenance

All products and services noted (above) would be necessary to implement the solution requirements of VCU's RFP, and would be purchased directly through T2 Systems. T2's solution will involve partner organizations to assist with various complimentary products/services (ie: PARCS Hardware Installation, RFID Permit Fulfillment). Still, T2's solution costs reflect respective discounts associated with ongoing relationships with such vendors, and will provide VCU with the best possible pricing.

T2 Utility Model

Per the University's request for alternative pricing formats, T2 has provided our "Utility Model" in an effort to provide attractive procurement options for VCU. This strategic model will provide VCU with the same robust/comprehensive enterprise solution proposed by T2, but with reduction in upfront (Year 1) costs and options for contract duration for ongoing costs. Our firm believes the Utility Model will provide the VCU with the following advantages:

- Lower upfront costs
- Options for appropriate subsequent annual costs
- Life-cycle management and cost containment
- Predictable warranty & service pricing (for longer term options)

Upon VCU's review of this option, T2 would be pleased to discuss questions/concern along with requests for additional pricing options.

3. Third Party Fulfillment Services – annual increase exceeds 30%?

T2 Response:

T2 annual pricing for permits and permit fulfillment services is based on **volume rather than unit price**. The unit cost for permits/fulfillment service will remain constant, while the number of permits increase over the three year period.

While VCU has provided a total quantity of 35,000 permits to be purchased/fulfilled, T2 has structured pricing to reflect for the following volume of permits:

- Year 1: 50% of 35,000 permits = **17,500 permits**
- Year 2: 70% of 35,000 permits = **24,500 permits**
- Year 3: 90% of 35,000 permits = **31,500 permits**

As noted above, unit pricing for permits and fulfillment services are guaranteed at a constant cost for the first term of the agreement. Unit pricing for these products and services are offered at the following rates:

- Permit Decals (both types): \$1.75 each
- RFID Hangtags: \$3.50 each
- Permit Fulfillment: \$2.20 each

Based on T2's experience within the higher education market, our pricing for permit decals/hang tags reflect quantities/percentages experienced by similar customers of size and scope. T2 believes this projection to be more realistic and efficient way for VCU to forecast the cost for these components.

4. Pricing – Why is the price increase larger than the RFP's reference to the CPI index for year over year cost increases in your 3 year matrix? Confirm that your firm complies with the mandatory annual price cap increase or increase at the time of renewal in the Special Terms and Conditions, Section 12, Item 17.

T2 Response:

T2's original proposed pricing included significant discounts for annual costs, specifically software and hosting. After discounts were applied, our T2 chose to display the 3 year costs with heavier discounts to Year 1. While the intent was to lower upfront costs (Year 1), we understand such a pricing structure may not conform to VCU pricing mandates.

For the revised 3 year pricing proposal (best & final), T2 has applied a consistent discount across the 3year model. While the overall 3 year pricing total is unchanged (outside of best/final discount), the revised structure provides annual pricing increases which comply with VCU regulations.

In addition, please review T2's Utility Model pricing option. This pricing provides consistent annual pricing for the solution, based on the contract duration.

5. Why is RFID Permit Tag going up in price +30% - when in fact technology + fabrication costs will decrease over that time period within global competitive markets?

T2 Response:

As noted in the response to *Question #*, T2's proposal does not reflect an increase in unit pricing for RFID Permits (or fulfillment services). The pricing increase is related to the volume of permits required, based on T2's experience with similar customers.

While VCU has provided a total quantity of 35,000 permits to be purchases/fulfilled, T2 has structured pricing to reflect for the following volume of permits:

- Year 1: 50% of 35,000 permits = **17,500 permits**
- Year 2: 70% of 35,000 permits = **24,500 permits**
- Year 3: 90% of 35,000 permits = **31,500 permits**

As noted above, unit pricing for permits and fulfillment services are guaranteed at a constant cost for the first term of the agreement. Unit pricing for these products and services are offered at the following rates:

- Permit Decals (both types): \$1.75 each
- RFID Hangtags: \$3.50 each
- Permit Fulfillment: \$2.20 each

6. What construction costs are not included in your proposal assuming concrete for N & D Deck - all electrical, power, network, local control wiring at the lane site. All costs must be included in the price proposal.

T2 Response:

T2 Systems, along with our installation partner, conducted a thorough site-walk for assessment of each facility included under the proposed solution.

While T2 pricing assumes all normal construction costs to implement our proposed PARCS solution, the following costs are not included in our proposal:

- N Deck & D Deck (as noted by VCU):
 - Concrete Work
 - Conduit
 - Electrical cabling
- Additional civil work/improvements, outside the original scope of the RFP
 - Additional improvement requests will require individual consideration

7. Explain the T2 credit card network and any services or monthly costs VCU must agree to during the program?

T2 Response:

The T2 Flex Credit Card Solution uses web services, in association with a customer's chosen internet payment gateway (IPG), for the processing of credit card payments. Credit card information is NOT stored on the network, but rather encrypted and passed to the IPG for processing. For detailed configuration, architecture, and requirements of this process, T2 has attached the "T2 Flex Credit Card Solution PA-DSS Implementation Guide", for VCU review.

There are no transactional costs for the T2 Credit Solution, as the payment processing activity takes place between the customer's IPG and processor/financial institution. T2 recommends that our customers discuss IPG vendor options with their respective processors, as transactional fees may vary. While such transactional fees are relatively insignificant, VCU may have the ability to leverage an improved rate based on overall usage.

8. How do you plan the Permit & PARCS transition in the field? Explain your program and labor impact to the VCU site.

T2 Response:

Though the solution proposed by T2 is an enterprise solution consisting of both Permit and PARCS components, the actual implementation will comprise of phases for both components. The phases will consist of analysis, testing, initial configuration and data enrollment, implementation, training, and testing.

The actual scheduling of the work and the associated sub-tasks will be determined after detailed discussions with site management and operational staff members.

From a general prospective, we would anticipate the PE components would be completed first as there is no civil component. In addition, the implementation of the PE components is inclusive of the Flex environment which needs to be in place prior to the implementation of any of the PARCS components.

9. Explain the Permit training process and commitment to on-site T2 personnel sessions – impact to VCU staffing.

T2 Response:

T2 has over 60 recorded classes that VCU can take before, during, and after the T2 Parking Management Platform implementation. With individual logins, the VCU staff can access any of the classes and materials on the T2 customer web site www.t2systems.com. We want to stress the importance of taking these classes in the order that is established for you AND in the time frame that is recommended. VCU's future satisfaction with the T2 solution will be greatly enhanced by the proposed training. Your initial investment of time now will be rewarded as you "Go Live." In conjunction with the Recorded Training Library, T2 customers have the ability to become an official "Certified User" of their T2 solution. We offer the following certification tracks:

- Front Line
- Supervisor
- Financial
- PARCS

T2 Systems understands that additional and ongoing training will augment the overall experience and value of your investment. Therefore, VCU will receive an additional 13 days of customized on-site training coupled with access to pre-recorded training programs over the term of the contract.

In efforts to prepare VCU with potential employee training impacts, T2 would request a collaborative approach to building the final training itinerary/schedule. While certain criteria will always apply, a customized approach would certainly be of mutual benefit.

10. Describe any missing equipment, components, or outside services, in the T2 proposal, that VCU is responsible to provide for both Permit and PARCS installation & operating the system going forward.

T2 Response:

While T2 believes our proposal solution covers all required components of VCU's RFP requirements, some of the optional/future applications mentioned have not been included. While T2 does have the ability to provide additional solution features and products, directly or through partner vendors, additional scope requirements would need to be scoped for pricing and integration.

Products and services noted in the RFP, which need additional discussion regarding requirements, include the following:

- Wayfinding
 - Mobile Applications
 - Monument Signage
- Valet Parking Solutions
- Interface requirements for integration with separate PARCS vendors

11. VCU wants a narrower window for the implementation than your firm originally proposed. To assist with adjusting the schedule, VCU suggests loading faculty and staff permits from Banner into your system and then loading citations. For students all permits are from scratch. Some student permit milestone dates include having the system available to sell permits in June 2015 and begin selling the student permits by July 1, 2015. The target "go live" date for completion of the implementation is August 31, 2014. Can your firm complete the implementation in this window?

T2 Response:

T2 is committed to providing the products and services required to meet the timelines for the student permit/implementation milestones noted. T2's standard process for implementation of an enterprise/unified solution would be begin with the T2 Hosted Flex Permit & Enforcement (Citation) solution. This would allow for the establishment of the solution "backbone", while working in parallel to finalize design/order equipment for the PARCS solution.

Provided VCU's ability to award the project in the next 45-60 days (target – January 2015), T2 can deliver implementation of the enterprise solution by **August 2015**. Since the PARCS system implementation would likely have a longer duration, the T2 timeline would allow for the permit management components to be implemented by June 2015. Thus, allowing for permits to be sold by the required deadline (July 2015).

In the response items to follow (#12), T2 has provided an implementation schedule with project milestones durations for implementing the Permits/Citation program and PARCS system.

12. Please confirm how long after a contract award your firm can commit to dedicating resources for the VCU project. What is the number of days after award for your firm to begin and complete implementation? Please submit a revised implementation schedule.

T2 Response:

In general, the implementation milestones and the anticipated 'duration' of those milestones would follow a plan similar to what is indicated below. As noted in our timeline, T2 would expect immediate action upon award, with project preparation activity to start within days of a notice to proceed:

Day 1	Contract awarded
Day 5	Project kick-off meeting on site
Day 6 - 10	Site meetings to review / analyze business processes
Day 20	T2 to provide initial System Design Document (SDD) to VCU
Day 25	VCU to provide SDD comments to T2
Day 35	T2 to provide SDD document to VCU for review and signature
Day 35	Equipment order
Day 40	T2 to initiate PE Flex configuration

Day 45	T2 to work with VCU to establish training curriculum
Day 55	T2 to train VCU PE operational staff
Day ?(June)	VCU to begin use of T2 PE program
Day 60	Initial site civil work that does not impede facility use
Day 80	Commence Factory Acceptance Test in T2 Indy location
Day 85	T2 to train VCU PARCS staff
Day 90	Ship equipment to the site
Day 95	Commence site installation work and lane specific civil work
Day 160	Complete project installation (all facilities)
Day 165	Commence site Operational Demonstration Test

Please note some of these durations will change based on VCU's deadline requirements. If award does not occur on the expected timeline, schedule revisions will need to occur to achieve project goals.

13. Does your firm agree that VCU has approval on personnel assigned to the project? If the performance by any your firm's personnel is not acceptable to VCU, does your firm agree to replace them?

T2 Response:

While T2 is confident that all personnel assigned to the VCU's prospective project will meet and exceed expectations, T2 confirms VCU will have final approval. In the event that T2 personnel performance is not acceptable, T2 will provide replacement if such action is deemed necessary by VCU.

14. Explain how your proposed project manager is assigned. Is the project manager dedicated to VCU or working with several sites, and what level of responsiveness can VCU expect? Please make the commitment that the project manager remains on the project until the implementation is complete.

T2 Response:

T2 has assigned a senior project manager for this prospective project, based upon their vast experience with large enterprise implementations. While such an endeavor may include multiple project managers to implement various components, the chosen candidate will lead the entire project and be the main point of contact throughout.

While the T2 project manager will be proactive with communication via regularly scheduled project calls and onsite visits, they will also be at VCU's disposal throughout the implementation period (and designated time after).

15. To combine and issue ONE CONTRACT for both PARCS and PERMIT, as proposed, VCU is over budget. Based upon these open discussions and T2 learning more about the VCU operations and system intent provided by the RFP, we would like T2 to review their proposal, content, and services and provide VCU with your best and final proposal of costs to implement this new Enterprise Program campus-wide. What additional discounts or price breaks can be offered without changing any of the project approach and deliverables proposed? State the discounts or price breaks offered and confirm that these discounts or price breaks are the contract discounts or price breaks for any additional purchases by VCU or other authorized users of the awarded contract. Submit a revised Pricing Schedule with the best and final offer.

T2 Response:

As noted in previous response items, T2 has provided the most significant discounts in the area of software/hosting subscription. For this component, T2 has provided three (3) years of subscription for the cost of two (2) years.

In the revised proposal, T2 has provided additional discounts to the overall solution price – both in the Permit/Citation Program and PARCS System pricing.

In efforts to propose the exact same unified solution, with more attractive pricing structure for VCU's budget, T2 has included an additional pricing option called the T2 "Utility Model". This pricing model will allow for lower upfront costs, with flexible annual payment options for the chosen contract duration.

16. Is the pricing offered the most favorable pricing offered to any customer for the same volume at this particular time?

T2 Response:

While T2 provides various pricing models for the different solution types, our firm can assure VCU that pricing submitted (originally and revised) are the most favorable offered to any T2 customer utilizing the requested components.

17. In Sections 1-3 of the RFP, the words shall or must indicate mandatory requirements and the words should or may indicate non-mandatory requirements. Please clearly indicate that your firm is agreeing to comply with all of the mandatory requirements and clearly state which of the non-mandatory requirements are offered.

T2 Response:

T2 Systems has reviewed all sections of the RFP containing mandatory requirements, and agrees to comply with all mandatory requirements.

18. Should the VCU wish to request a Performance Bond on this project, are you as the Prime Contractor capable to provide and at approximately what % costs?

T2 Response:

T2 Systems understands the VCU Evaluation Committee does not require a Performance Bond for this project.

19. Does your firm agree to comply with The Essential Procurement Needs listed on Page 8-62 of the RFP?

T2 Response:

T2 Systems has reviewed, and will comply, with all requirements listed under the RFP's section labeled "The Essential Procurement Needs".

With regard to the "Special Terms & Conditions" (Section 12), T2 respectfully requests the following language (idea) be considered/incorporated for #6 "Cancellation of Contract":

Should the University elect to cancel the contract prior to the scheduled completion of the project, the University will be responsible to pay for any / all work completed up to the time the contract is cancelled as well as any other unrecoverable fees paid by the Contractor in expectation of performing the work.

20. Does your firm agree that the period of the contract shall be from the award through implementation of the system then continuing until the system is fully installed and operational and includes the first warranty/maintenance period with up to nine (9) successive one year renewal options of the contract?

Or alternatively, VCU will consider the option of a longer initial term or renewal term(s) for a potential aggregate term of the contract not to exceed the initial term described above and a total of nine (9) renewal years based upon the attractiveness of the Offeror's proposal. Does your firm offer an alternative contract term and renewal options?

T2 Response:

As noted in previous response items, T2 has proposed multiple pricing options for VCU review. Upon proposal review, T2 would be pleased to discuss additional options/models.

Should VCU require an initial contract term of 30 months with eight (8) one year renewal options, T2 would agree to such terms. Although this pricing modes is not reflected in the pricing schedules provided, T2 agrees to the following structure:

- Initial contract term of 30 months
 - Current Year 3 pricing would be prorated to 6 months
- First renewal term (1 year – optional) would not include an increase from the current schedule Year 3 price
- Subsequent one (1) year renewals would reflect an annual increase acceptable to both parties

Upon final determination, T2 will present VCU with the proposed pricing schedule/model to reflect the terms stated above.

The following pricing options are included/attached with this response:

Option A: Independent Solution Pricing

- Permit & Citation Management Purchase Program

Option B: Best & Final Enterprise Solution Pricing

- B1: Permit & Citation Management Purchase Program
- B2: Parking Access & Revenue Control System

Option C: Utility Model Pricing - Enterprise Solution

- 3,5,7,10 Year Options

21. As specified in the RFP, one of the evaluation criteria to determine the contract award is the commitment for utilization of small, women-owned and minority-owned businesses. Can your company propose any additional subcontracting opportunities to utilize any of these categories of business for the provision of the contract requirements?

T2 Response:

Given the turn-key solution type T2 has proposed for VCU's solution, the outsourcing of products and services becomes more difficult to pursue. Still, T2 understands VCU's commitment to the program and will make efforts to increase our utilization percentage.

Recently, T2 has communicated with our handheld manufacturing partners, if efforts to find a distributor with proper certification. T2 will continue to explore additional avenues for utilization, and would be pleased to discuss any suggestions from VCU.

22. Include as part of the written response the clarification questions and answers from the Oral Presentation.

T2 Response:

In efforts to keep the respective response documents separate, T2 will include our "Oral Presentation" response in a separate file.



T2 Systems

Option B1 - Permit/Citation Summary: Best & Final Pricing - 3 Year Model (Enterprise Award)

T2 Hosted Service VCU Hosted Hybrid

Product Description	Qty	Program Costs			Delivery Schedule
		Total Initial Purchase	Total Year #2	Total Year #3	
Permit Management Software (subscription package includes citation management software)	1	\$ 18,900.00	\$ 19,184.00	\$ 19,472.00	120 Days
WorkStation License	10				120 Days
Annual Hosting Fee : software and eCommerce application	1	\$ 9,975.00	\$ 10,125.00	\$ 10,277.00	120 Days
eBusiness eCommerce Fee: subscription fees for online Permit Sales, Citation Payments, Citation Appeals, and Account Mangement	1	\$ 3,460.00	\$ 3,512.00	\$ 3,565.00	120 Days
Data Conversion Costs	1	\$ 6,650.00	\$ -	\$ -	120 Days
Banner - CBORD Interface Costs	1	\$ 5,558.00			
Web Design Service	1	\$ 34,248.00	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Installation	1	\$ 38,646.00	\$ -	\$ -	120 Days
Training	1	\$ 15,485.00	\$ -	\$ -	120 Days
Documentation	1	\$ -	\$ -	\$ -	120 Days
Travel Expenses	1	\$ 5,700.00	\$ -	\$ -	120 Days
Citation Management Software (included with permit management software package)	1	\$ -	\$ -	\$ -	120 Days
Annual Hosting Fee	1	\$ -	\$ -	\$ -	120 Days
WorkStation License	10	\$ -	\$ -	\$ -	120 Days
Server Hardware	1	\$ -	\$ -	\$ -	120 Days
Web Design Service	1	\$ -	\$ -	\$ -	120 Days
Other	1	\$ -	\$ -	\$ -	120 Days
Hand Held Citation Devices (includes case and magstripe reader)	12	\$ 36,086.00	\$ -	\$ -	120 Days
HandHeld Software (Enforcement)	12	\$ 6,055.00	\$ 6,146.00	\$ 6,238.00	120 Days
Charging Stations (Single)	2	\$ 358.00	\$ -	\$ -	120 Days
Charging Stations (6 Unit)	4	\$ 1,311.00	\$ -	\$ -	120 Days
Data Interface Stations	4	\$ -	\$ -	\$ -	120 Days
Data Storage Devices	12	\$ -	\$ -	\$ -	120 Days
Replacement Battery	12	\$ 921.00	\$ -	\$ -	120 Days
Replacement 4GB SD Card	12	\$ 82.00	\$ -	\$ -	120 Days
Shipping	1	\$ 190.00	\$ -	\$ -	120 Days
Event Management Solution					
Event Solution Software	1	\$ 2,415.00	\$ 2,451.00	\$ 2,488.00	120 Days
Handheld Software (Event - credit card sw)	12	\$ 4,835.00	\$ 4,908.00	\$ 4,982.00	120 Days
Event Solution Implementation	1	\$ 5,807.00	\$ -	\$ -	120 Days
RFID Permits					
		50%	70%	90%	
Inside Repositionable Decal	15,000	\$ 12,469.00	\$ 17,456.00	\$ 22,444.00	120 Days
Inside Security Stick Decal	15,000	\$ 12,469.00	\$ 17,456.00	\$ 22,444.00	120 Days
Tri-Plex (Non-RFID) Hang Tags	5,000	\$ 8,313.00	\$ 11,638.00	\$ 14,963.00	120 Days
3rd Party Permit Fulfillment Service	1	\$ 38,000.00	\$ 51,205.00	\$ 65,835.00	120 Days
Total Annual Costs		\$ 267,933.00	\$ 144,081.00	\$ 172,708.00	

Comparison: Original Proposal	\$ 270,582.00	\$ 154,126.00	\$ 190,846.00
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T2 Systems

Option B2 - PARCS Pricing Summary: "Best & Final" - 3 Year Model (same unit quantities from original proposal)

Solution Component	Year 1	Year 2	Year 3
Permit Only Decks:			
Equipment Costs: Includes Hardware & Freight	\$ 705,320.00	\$ -	\$ -
Installation Costs: Includes Project Management, Construction Costs, & Travel Expenses	\$ 218,427.00	\$ -	\$ -
Permit & Transient Decks			
Equipment Costs: Includes Hardware & Freight	\$ 1,082,570.00	\$ -	\$ -
Installation Costs: Includes Project Management, Construction Costs, & Travel Expenses	\$ 249,550.00	\$ -	\$ -
PARCS Project-Wide			
Training Program	\$ 12,730.00	\$ -	\$ -
Intercom System	\$ 15,520.00	\$ -	\$ -
Spare Parts	\$ 42,420.00	\$ -	\$ -
Annual Subscription Costs			
PARCS Software	\$ 43,556.00	\$ 44,209.00	\$ 44,873.00
T2 PARCS Hosting	\$ 27,120.00	\$ 27,527.00	\$ 27,940.00
PARCS Service / Maintenance			
Enterprise Solution - All Support Services includes onsite resource for PARCS Service	\$ 110,000.00	\$ 112,000.00	\$ 115,000.00
"Best & Final" Total Annual Investment	\$ 2,507,213.00	\$ 183,736.00	\$ 187,813.00
Comparison: Original Proposal			
Comparison: Original Proposal	\$ 2,582,429.39	\$ 189,248.08	\$ 193,447.39

[License Search \(Search\)](#) [Advanced License Search \(AdvancedSearch\)](#) [Disciplinary Action Search \(DisciplinaryActionsSearch\)](#)

License Details

 [\(LicenseDetail?l=2705154733&print\)](#)

Name	T2 SYSTEMS INC
License Number	2705154733
License Description	Contractor
Firm Type	Corporation
Rank	Class A
Address	8900 KEYSTONE CROSSING SUITE 700, INDIANAPOLIS, IN 46240
Specialties	Elect/Comm Serv (ESC)
Initial Certification Date	2014-08-25
Expiration Date	2016-08-31

The license information in this application was last updated at Thu Jan 15 02:50:17 EST 2015.

License Lookup legal disclaimer



VIRGINIA COMMONWEALTH UNIVERSITY

PARCS Questions for T2

T2 RESPONSE - OCTOBER 13, 2014

General

1. Will T2 share the Permit Database with another PARCS Vendor on this project?

T2 Response:

If required, we can send to another vendor a file containing the information on the individuals enrolled in the Flex system. It will be up to the vendor to parse and isolate that data as needed.

2. Tell us about the TerraTronix/T2 relationship and assures that the PARCS product line will be supported long into the future. TerraTonix has limited exposure in North America for PARCS and a partnership with T2 has limited enterprise sites to compare in a short history.

T2 Response:

While Teratronik has limited manufacturing exposure in the States, they are a known and respected equipment provider in European market. Their equipment is well engineered and they are providing the equipment to T2 in an OEM relationship. T2 has entered into long term PARCS relationships (contractual) with universities and municipalities that extend beyond 10 years. In addition, a major growth target for T2 is the implementation and support of existing and new PARCS projects. As such, it is a fundamental need for T2 to maintain and grow the product line in collaboration with Teratronik.

3. Will VCU be able to bid and purchase commodities (RFID tags and other consumables) annually?

T2 Response:

That is correct. We recommend that our clients explore relationships and pricing concessions for consumable and commodity product suppliers. The only caveat is that the commodities and consumables are technically compliant with the equipment installed in the field.



5. How do you plan the Permit & PARCS transition in the field? Explain your program and labor impact to the VCU site.

T2 Response:

The final transition plan encompassing both schedule and order of implementation will be collaboratively defined during the System Design Documentation process. In addition, the system will be set-up and examined during the initial Factory Acceptance Test. However, in general, the plan would be as follows:

1. **Implement and configure the head end**
2. **Configure and begin data enrollment in Flex**
3. **Begin the civil work (electrical, network, lane work) on Facility 1**
4. **Distribute any new credentials to patrons using Facility 1**
5. **Confirm network connectivity**
6. **Transition the lane equipment**
Depending on the number of lanes involved, this could take several days
7. **Upon the completion of each lane, perform a lane acceptance test to confirm proper device and configuration prior to opening to public**

During the actual lane transition, Step 6, VCU will have to provide staff to monitor access into the facility. During this time, those staff members will provide direction to the patrons as to the proper use of the intended new equipment/credentials. Depending on the site and the number of lanes to be transitioned in each facility, staffing may take a couple of days for a small facility or a couple of weeks for a large facility.

6. Please provide a detail schedule of implementation from the time of award?

T2 Response:

While the final schedule will be collaboratively determined during the System Design Process, a general schedule and those items would be as follows:

- | | |
|-----------------|---|
| Day 1 | Signed contract – notice to proceed |
| Day 5 | T2 team and VCU team meet on site for project kick-off |
| Day 6-10 | T2 and VCU team collaborate on initial draft of SDD |
| Day 20 | T2 provide initial draft of SDD for VCU review |
| | Equipment color confirmed |
| | Equipment design confirmed |
| Day 24 | T2 orders equipment |
| Day 27 | VCU provides comments / suggestions on SDD draft |
| Day 40 | Final SDD provided to VCU for review / acceptance |
| Day 45 | VCU returns completed SDD |
| Day 50 | T2 and VCU team collaborate on training curriculum |



- Day 60** Civil work not interfering with facility operations commence
- Day 90** Factory Acceptance Test to be held in Indianapolis
- Day 100** Factory Acceptance Test completed, equipment shipped to site
Configuration of Flex to commence
Data import (as defined in the SDD to commence)
VCU to provide notification to parking constituents)
- Day 120** Transition of Facility 1 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 130** T2 and VCU to meet and review install process on Facility 1
and make adjustments as needed
- Day 140** Transition of Facility 2 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 150** Transition of Facility 3 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 160** Transition of Facility 4 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 180** Transition of Facility 5 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 190** Transition of Facility 6 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 200** Transition of Facility 7 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 210** Transition of Facility 8 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 220** Transition of Facility 9 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 230** Transition of Facility 10 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 240** Transition of Facility 11 to commence
(duration dependent on size of facility)
Lane Acceptance Test to take place as each lane is completed
- Day 250** Transition of Facility 12 to commence
(duration dependent on size of facility)



	Lane Acceptance Test to take place as each lane is completed
Day 270	Develop project punchlist
Day 290	Begin Operational Demonstration Test

NOTE: The general project schedule with identified milestones indicated above is based on a linear installation plan. There are several smaller facilities that can be done concurrently ultimately reducing the overall installation timeframe. These scheduling decisions will be discussed and finalized during the SDD process.

7. What construction costs if any are not included in your proposal?

T2 Response:

There are several locations in which the concrete traffic islands could be repaired or the actual islands can be adjusted to allow for better vehicular throughput. We have not included any costs for the repair / adjustment of those concrete islands.

8. Explain the Permit training process and commitment to on-site T2 personnel sessions.

T2 Response:

Your training begins at project kick-off and continues well after your solution goes live. Your T2 IC will guide you through the training process and also come on site during the early stages of the project.

You will receive a unique login to the T2U recorded training library and you'll be given a list of REQUIRED and RECOMMENDED sessions based on your current business practices and specific T2 Solution.

9. Explain the T2 credit card network and any services or monthly costs VCU must agree to during the program.

T2 Response:

VCU has two (2) options with regard to credit card processing. Option 1 is to use a third party credit card processor. T2 will implement a Payment Gateway which will funnel credit card transactions to the chosen credit card processor. There is no monthly fee charged by T2 for this option: the monthly processing fees would be charged by the processor. Option 2 is to name T2 as the merchant of record. In this manner, T2 assumes much of the responsibility for maintaining PCI compliance. T2 processes all of the credit card transactions and transfers the funds to the chosen bank of VCU. This option would incur a monthly processing fee from T2. The fee would be based on the overall volume of transactions and the mean dollar value of those transactions.



T2 will commit to processing credit card transactions at no charge to VCU for a period of 30 days for the first facility from the time it is open for public use. At the end of 30 days, T2 and VCU will meet to review the transaction data and negotiate a competitive rate for the subsequent processing.

10. Describe any missing equipment, components, or outside services, in the T2 proposal, that VCU is responsible to provide for both Permit and PARCS installation & operating the system going forward.

T2 Response:

T2 will provide all the equipment described in our proposal which will be further defined in the SDD. We have included all the installation components using both T2 field technical staff and sub-contracting partners. Included is the associated training and the commitment to have a T2 technician (located in the Richmond area) assigned to this project for the overall duration: installation and subsequent warranty. We have included professional project management with a T2 PM assigned to this project for the duration of the implementation.

We have not included any operational staff required to manage / direct / assist patrons during the actual facility transition nor have we included any temporary signage that could be used to notify and direct patrons prior to and during the installation.

Business and Financial Administration

11. Please explain your experience with other enterprise systems and how you interface into a common website and/or Parker application.

T2 Response:

T2 Flex Software provides the centralized platform to manage all of the University's parking management applications. Given T2 Flex's open architecture, this solution can also incorporate existing systems which house important data useful for parking operations.

12. Is the real-time parking space inventory displayed on a website?

T2 Response:

T2 Flex allows for the use of "dashboards" to efficiently and creatively manage and display data stored in the software solution. One of the dashboards PARCS customers utilize often, shows occupancy and space inventory.



13. Describe how your system can accommodate Carpool programs (multiple users tied to one space/account).

T2 Response:

The Flex PARCS component has an account management program in which you can assign multiple participants to a signal account but allow access only to 1 participant at a time. This can be used to provide Carpool limitations in which you limit access to those assigned to a specific account.

14. Will the systems support variable demand based rates for hourly and special event scenarios?

T2 Response:

We can support special / alternative rates for special events that can be a function of ticket issuance, validation time-period, or date. We do not currently have the ability to alter rates based on occupancy and real-time demand.

15. What controls are in place to assist with cash audits and inventory management for all types of credentials?

T2 Response:

The system is populated with a suite of reports developed over many years that are used to provide both initial and legacy revenue activity for both cash and non-cash transactions. In addition, VCU can create dashboards to display the information required by each system user. For example, an auditor may elect to create their dashboard to display all revenue activity for the previous day: detailing cash, credit card, validations, discounts, program cards, lost ticket transactions, ISF transaction, and any other assorted revenue details. A supervisor may elect to create their dashboard to display the current money stores in place for the Pay on Foot machines to determine if they need vault removal or additional change.

The Flex program provides very concise controls in regard to credential issuance, assignments by account or contract type, and current status. This component can be used to manage credential payment, be it monthly billing or payroll deduction. You have the option to issue credentials to individuals (managed as an individual) or to an account (department) in which you provide to that account a series of credentials that are managed in bulk. In most institutions, several methods are used to address the variety of constituent types: students, staff, visitors, contractors, etc. The Flex environment allows you to choose which method best suits the needs of that group.



16. Please explain the communications process available within the system. Is there an ability to email certain user groups (i.e. individual facility users)? How is the system administered and are there distinguishable permission levels?

T2 Response:

eMail Management

Flex has versatile email management functionality. The email management option allows you to create specific email templates and easily send text-based group emails to a list of recipients (typed manually or generated via a query). The list of recipients can be a specific group such as specific permit holders or facility user.

User Management:

Flex has comprehensive User Management functionality. User Management settings allow you to create and manage T2 Flex users and control every element of those users' access to T2 Flex by granting rights based on roles. In addition, you can individually grant rights to any user. Individually assigned user privileges will remain even if the role changes or if a different role is assigned.

Operations and Enforcement

16. Describe how your special events system distinguishes between monthly subscribers and visitors.

T2 Response:

The Event Management system resides within the Flex Permit and Enforcement solution. The Flex unified solution will distinguish your monthly subscribers and visitors. All customers are assigned to specific classifications determined by VCU.

17. Will the system allow for temporary suspension of all permit privileges for the duration of the event?

T2 Response:

The Event Management solution along with PermitNow allows for VCU to determine who is allowed to park in that specific lot for that specific event. VCU can choose to only allow pre-purchased event passes and transient passes to a specific event.

18. Do the handheld units have a geo tag system to show the location of the enforcement agents?

T2 Response:

The GPS feature allows parking organizations to track the last location of handheld users in the field and display it on a dynamically generated Google map in an eBusiness Web page. These GPS coordinates come from routine captures (rate of



capture set on the handheld) or special assistance requests from the handheld users. Only a pinpoint location of an officer's last fix/activity displays on the map.

The handhelds can also capture the GPS coordinates of citation transactions.

19. What type of reports will the system create to show the daily work efficiency of Enforcement and Safety Officers?

T2 Response:

T2 Flex comes with a little over 100 standard reports. During the project phase, your implementation consultant will work with VCU to modify existing reports or create new reports. Flex reports can show officer activity. VCU can set the parameters by date, officer, violation, etc.

20. Will the handhelds be able to display full account information for subscribers including alternative vehicle information (in case they drive a alternative vehicle that does not have a permit but is registered to the subscriber)?

T2 Response:

In Flex multiple vehicle license plate numbers can be associated with a permit. When a permit is entered on the handheld Ticketwriter Flex provides all relevant information including alternate license plates associated with a permit.

21. Will the handhelds generate a patron's contact information?

T2 Response:

While many pieces of pertinent information can be displayed on the handheld during the citation issuance process; contact information (address or phone number) is not displayed.

22. What are the notification procedures for all system/gate alarms. Can alarm messages be communicated via email or text messaging?

T2 Response:

Flex PARCS provides for the University has control over what alarms are set up and can set up alarms for most any activity. The monitoring system will, of course, record the alarms. For notification, yes, email can be set up in Flex to be sent for particular Alarms.



IT Questions

23. Describe VCU IT teams responsibility to interface your PARCS software with VCU's IT Banner system.

T2 Response:

T2 Flex is built with open architecture, creating an environment to efficiently exchange (import and/or export) with existing systems with data important to parking.

T2 will work with appropriate staff to gather requirements for Banner interfaces. Depending on what types of interfaces are needed will depend on what information we will need to collect from VCU. Typically we ask for file format and field names.

24. VCU has a policy for processing credit cards that includes no storing of the full credit card number on VCU IT Equipment which includes Servers, PCs, Tablets, etc. Can you explain how your application would handle this requirement when your system is online and in an off-line mode?

T2 Response: See T2 Systems CC Solutions Data Flow document.



T2_Systems_CC_Solutions_Data_Flows_

25. We have an issue with our current system having multiple owner records, i.e. if "Street" is spelled out in one record, but the abbreviation "ST." is used on another record, then we have two owner records for the same customer. How would your system handle this scenario?

T2 Response:

Flex too will recognize a difference between "Street" and "St.". However, in Flex, the difference is on an address so you would see one (1) owner record (Customer record) with two (2) address records linked to that customer.

For vendor hosted solution

26. Will VCU data be stored in a monolithic database with other customers' data? How much control does VCU retain over its data? Can it be downloaded? In what formats?

T2 Response:

In the T2 hosted environment; each customer has their own instance of an Oracle Database. It is T2's policy that VCU remains the owner of their data, even in a



Hosted Solution. Data, or sets of data, can be exported using the tools within Flex at any time by your staff. Data being exported from Flex can be generated in comma delimited, TAB delimited, custom delimited (you specify the delimiter) or fixed width formats.

In addition, Data can be provided in an Oracle ExpDP format which is typically used for the return of data should you ever terminate your services with T2.

27. How do you ensure client security? How is client activity monitored?

T2 Response:

The T2 IT Team uses a combination of industry standard IPS/IDS devices, firewalls, web application firewalls in our payment environment, and enterprise antivirus and malware protection across our environment where applicable. All of these solutions offer logging and our monitoring. In our payment environment, logs are also reviewed daily as part of our operation.

28. Do you provide remote operational transparency to view client activity (monitoring, performance management, change management, problem management)?

T2 Response:

Due to the nature of the shared environment, monitoring, performance management, change management, and problem management details are only available to authorized T2 team members.

29. What protection mechanisms and techniques are utilized in your data centers?

T2 Response:

T2's hosting environment is housed by Expedient Data Centers. Expedient's Indianapolis, Indiana Data Center is one of the country's most advanced enterprise-class facilities. Located in the northern suburb of Carmel, Indiana, this SSAE-16 compliant, 38,000 square-foot data center facility was engineered with the technology and security needs of businesses in mind.

Expedient's Indianapolis data center is accessible to approved personnel only and boasts a security surveillance system including motion detectors, biometric hand scanners, multi-level card access, lockable cabinets, and on-site personnel assure that you have the highest level of monitoring and security:

- 24x7x365 On-Site Monitoring
- Fully Redundant Cisco Powered High Availability Network Switches
- SSAE-16 Audited Facility



- Multi-tiered Security Functionality

Features of Expedient's Indianapolis Data Center

- Three power feeds and four UPS systems
- High performance, dedicated, redundant telecommunications backbones, power and HVAC systems with a N+1 configuration
- A Cisco powered back bone is in place with redundant routers and switches which eliminates single point failures and provides uninterrupted data flow across the network
- Specialized Computer Room HVAC temperature control systems with separate cooling zones
- Fire Suppression: FM-200 and pre-action day pipe sprinkler system

In addition; the T2 IT Team uses a combination of industry standard IPS/IDS devices, firewalls, web application firewalls in our payment environment, and enterprise antivirus and malware protection across our environment where applicable.

It should be noted that, we use enterprise backup and tape backup functionality; as well as; replicate data off-site to a disaster recovery datacenter.

30. Detail your data migration strategy from VCU's existing system/database architecture to your system/database architecture.

T2 Response:

Data migrations are handled as part of a project that is scoped and developed with our Data Services team. More information on data conversion can be found in the response to question 19 below.

For VCU hosted solution

31. Describe your systems support and problem resolution methodology.

T2 Response:

For reference, a copy of the current Service Level Agreement (SLA) is embedded here. This document is updated from time to time as improvements are available.



SLA 07082014.pdf



32. Detail the hardware/software installation plan with VCU resource allocation requirements.

T2 Response:

Embedded is a copy of T2's most recent Requirements and Network Architecture Overview document which will provide client and server requirements and reference network architecture diagrams for self-hosted customers implementing T2 Flex 7.7 solutions. It is expected that the University will provide all servers required for the final configuration of Flex that is to be implemented. T2 also expects that the University has staff familiar with implementing and administering: the network and a vendor provided application with an Oracle database. T2 does update the application twice each year and expects the University will stay current with the installed version.



T2_Flex_7.7_Rqmts_and_Architecture_Ov

33. Detail your data migration strategy from VCU's existing system/database architecture to your system/database architecture.

T2 Response:

What to do with your existing parking data is one important aspect of installing T2 Flex. Although you can start using T2 Flex without any existing data, you probably want to move some or all of your existing parking data into T2 Flex. Data conversion is the process of taking records from an existing system and manipulating them so they can be imported into your new system. There are 4 basic steps in the data conversion process:

1. Determine which existing parking data you want to migrate.
2. Export data from your existing parking system.
3. Convert data into T2 Flex formats using a conversion program.
4. Import converted data into T2 Flex.

Typically, four T2 tables are populated during the data conversion process: Citations, Permits, Vehicles, and Customers.

Determine Data to Convert

T2 recommends that you bring over recent data as your policies will allow. We do not recommend converting data that is "bad" as you will want to start with a clean database without a lot of issues to clean up later.

- Determine which existing citations you want in T2 Flex. You can limit the number of citations by providing specific criteria for issue date, status (e.g. unpaid, on appeal), etc.



- Determine which existing permits you want in T2 Flex. You can limit the number of permits by providing specific criteria for expiration date, permit type, permit status (e.g. expired), etc.
- Determine which existing vehicles you want in T2 Flex. We recommend limiting the number of vehicles by having us only convert those associated with the citations and permits that you selected.
- Determine which existing customers you want in T2 Flex. We recommend limiting the number of customers you convert by having us only convert those associated with the citations and permits that you selected.

Export

- In general, it is best to provide T2 with your full database which should be placed on our FTP location. The conversion program can limit the data to your selected criteria.
- Provide existing parking data in the following file formats (in order of preference): Access (MDB), dBase (DBF IV), Oracle, SQL Server, tab-delimited text, comma-delimited text (CSV) and fixed-length text.
- Provide descriptions of all exported files including field name, field type, field length, field description, data description, etc.

Conversion

- After you provide samples of your data and descriptions of your parking processes, you and T2 will determine how to best migrate your existing data to T2 Flex. We will create a conversion layout that documents how each of your fields is migrated to an equivalent field in T2 Flex.
- After your initial code setup into an empty T2 datafile, you and T2 will determine matrix tables describing how each of your existing code values are converted to T2 Flex. For example an existing vehicle make code of TOYO (Toyota) might be converted to T2 Flex as TOYT.
- From all of the above information and data, a conversion program will be developed to convert the exported data into a format that can be imported into Flex. Typically, a T2 Systems Conversion Specialist will write and test the conversion program.

Import

- Using the Import tasks, the converted data will be imported into Flex. The import populates the Customers, Vehicles, Permits and Citations tables after we provide which tables and fields the converted data should be imported into. The “relational” links between the tables are created during the import process.

Review Data in T2 Flex

- After a “test” dataset is imported into Flex, you will need to:
 - Review queries that summarize your data in Flex



- Review the sample data for missing or incorrect data.
- Ensure that the links between related data are correct.
- Compare imported data with the old parking data for discrepancies.
- Review error logs from the data conversion and T2 Flex imports.
- Multiple reviews of the conversion and import processes will likely be required before a Flex sample will meet your final approval.

Perform Live Conversion

- Upon approval, we can determine when to perform the live conversion. After you close down your old parking system and export the data we can perform the live conversion for you. The entire live conversion process will take from one to several days depending on how much data will be migrated to T2 Flex.

SERVICE LEVEL AGREEMENT

This document is designed to outline the service level agreement for T2 Systems Support Services, as well as The T2 Hosting Environment.

SUPPORT SERVICES

Support Services is offered to customers utilizing T2 Systems Products and Services, both T2 Hosted and Self Hosted, that have a valid subscription, hardware maintenance contract, or warranty period.

Normal Business Hours

Normal business hours are Monday – Friday, 8:00 AM – 8:00 PM Eastern, excluding T2 Approved Holidays. The list of holidays is located in Solution #2936. Support for critical issues is available 24x7x365 via our emergency support process. See the section on case priority for more information on the emergency support process.

Structure

Support Services is structured with two teams, Product Support (PS) and IT Operations (IT Ops). Among these two teams, there are three tiers, in which cases will be escalated as deemed appropriate.

Additionally, depending on the business impact, some critical cases may have a management escalation, where management will be made aware of the impact of the case and become involved as necessary. In the event this happens, the case contact will be made aware of the escalation from the employee working the case.

If the case is not part of a management escalation, and the case contact believes it should be, or wish to speak to a manager concerning the handling of the case, Support Services Managers are available to listen and engage. In such an event, the customer may escalate directly to the following:

Michelle Pritchett
Manager of Product Support
317-524-7457
mpritchett@t2systems.com

Grant Dawson
Director of IT Operations
317-524-7474
gdawson@t2systems.com

Case Priority and Target Resolution

Priority	Business Impact	Examples of Business Impact	Resolution Target
(5) Request	Non-time sensitive request; Equipment returned for repair or replacement, or report.	Future release upgrade; install Maintenance/Repair of hardware Request for report, letters, queries, widgets, scripts Report submission to library	Dependent upon request; Availability of resolution, or external Vendor/Repair Facility
(4) Low	Hindrance to the work and an acceptable work around is available.	Application installs All non-production ("Test") service/solution issues Product information questions/requests Web site login requests Product information/training Non critical PARC's application issue, i.e. Socket Server	7 business days
(3) Medium	Interruption of work exists and work around is available.	Handheld issue; one or more units are not operable (not all units) T2 Hosted Production inconsistent connectivity Processes not working as expected, i.e. Report, Task, Letter, Query Request for RMA Lane down in a multi-lane PARC's facility	5 business days
(2) High	Interruption to critical processes and no work around is available.	Production is slow Handheld issue (all units) Nonfunctioning Payment or Credential method in a PARC's facility	1 business day
(1) Critical	Interruption to critical business processes and no work around available.	Production down/inoperable	4 hours Critical issues are required to be phoned in to Support.

Changes in Case Priority

There may come a time when the employee working your case deems it necessary to change the priority of your case. For example, a support employee may upgrade the priority of your case based on new knowledge of business impact or additional degradation of service. A support employee may downgrade the priority of your case based on actual business impact or additional information about the case.

Supported Solutions

T2 supports only the current and most recent previous versions of T2 software. T2 supports all hardware that is prior to its announced end-of-support date.

Expectations of Customer

In an effort to provide timely customer service to all customers, we ask that the customer opening the case remain responsive to communications throughout the life of the case. If communication from the customer remains delayed or the customer needs to postpone beyond the resolution targeted time period, the case owner will close the case, until timing is better for the customer and a new case can be reopened.

In hardware support scenarios involving customers who do not maintain a pool of hardware replacement spares, or who do not retain technical staff (qualified and equipped to troubleshoot hardware failures – with or without T2 Remote support) ultimate resolution times will be extended. While T2 will expedite 1st and 2nd level support to identify the appropriate actions required to resolve a hardware issue within the SLA targets, ultimate resolution of Hardware issues will be dependent on availability of Field Service personnel (if needed), replacement parts and/or the turnaround time of repair facilities.

THE HOSTING ENVIRONMENT

Overview

This section applies exclusively to T2 Hosted customers. This document will explain T2 Systems IT platform, production applications and data in a secured and managed hosting environment. T2 Systems IT platform includes the hosting center facility, network connectivity (e.g., switches, routers) and network security components within the facility, as well as a suite of a la carte services.

T2 HOSTING PRODUCTION ENVIRONMENT

Uptime/Availability

T2 considers uptime a measurement of when the T2 Systems hosted solutions are present and ready for use, accessible in a usable form, or capable of responding to customer requests or processing and the customer can substantially use and access all of the functions of the hosted services in accordance with their intended use.

T2's targeted uptime is at least 99.0% of the time during each calendar month, calculated on the basis of seven days per week and twenty-four hours per day. Excluded from the uptime calculations are maintenance windows defined on the T2 Hub; a daily one hour after-hours reboot window, and a weekly 2 hour after-hours maintenance window, and any other announced maintenance. In the event of a disaster of sufficient impact to result in the invocation of the T2 Disaster Recovery plan, the uptime will be below this target and we will instead measure against meeting the 72 hour Recovery Time Objective (RTO).

Notifications for Upgrades, Outages, and Events

Notifications for outages are limited to outages that occur outside of the normal maintenance windows setup by the IT Operations Team for the T2 Hosting Environment. Published regularly scheduled outage times are available on the T2 Hub.

In the event that an outage occurs outside of the normal maintenance window, all efforts will be made to alert customers of the T2 Hosting Environment 7 days prior to the outage. If no advanced notification is given, at least 24 hours post the unscheduled outage, a message will be delivered to affected parties if the outage lasted longer than 10 minutes.

Upgrades to the T2 Hosted Environment are regularly scheduled at least 7 days in advance to the upgrade. T2 Hosted customers are required to upgrade to the latest release of Flex after the release becomes Generally Available. This includes both eBusiness and Flex.

Every effort is made to notify customers of an upgrade within this window. However, certain emergency/critical situations arise where a Hotfix or patch upgrades that are required to deliver significant performance, stability, or security fixes may be applied

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at the discretion of the IT Operations Manager. After such an upgrade, customers that were affected will be contacted via email within 24 hours.

Backups and Disaster Recovery

Backups are handled using an industry standard enterprise backup system. Both Oracle data and application data is protected through a three tiered approach that includes Disk to Disk Backup, Off-site replication to a Disaster Recovery facility over 100 miles away, and tape out of data to an off-site storage facility.

Backups are performed on the system consistently, with a nightly full backup of the environment. Replication to the external facility is also a consistent process. Weekly, tapes are offloaded to the secure off-site storage facility.

Our current backup design allows us to achieve a Recovery Point Objective (RPO) of 24 hours and a Recovery Time Objective (RTO) of 72 hours.

System Security

T2 Systems shall also maintain awareness of security vulnerabilities associated with systems and networks hosting customer data and take the action reasonably necessary to apply such fixes and patches as may be released for those systems. Routine patches must be applied within 60 days of release, and critical patches will be applied within 30 days of release.

Customer Data

T2 maintains that customer data in the Hosting Environment belongs to the customer.

T2 Solution Upgrades

T2 Solutions are updated regularly. Releases contain substantial functionality changes, improvements, and/or additions.

Upgrades to each generally available release will be performed on T2 Hosted customers – usually within 2 weeks of the release. Customers in the Hosting Environment are expected to upgrade to these releases. Customers will receive an upgrade notification that explains to them the scheduled downtime for their upgrade as well as a date and time after-hours for their upgrade. Customers will have the ability to reschedule their upgrade as necessary, as long as customers remain within a supported version of the T2 Solution suite.

T2 STAGING/TEST HOSTING ENVIRONMENT OVERVIEW

Test and staging database(s) will be a point-in-time copy of a customer's database and will have the necessary instances of the T2 Solution required by the need of the test or staging objective.

The database will be maintained on a server that is of T2's choosing and will most likely not be the same hardware as used to host production databases.

T2 Staging/Test Hosting Environment Upgrades and Backup

The database will be refreshed upon customer request. Typically, these refreshes are moderately infrequent (about 6 or less per year). Frequently Scheduled requests or automated requests are not available at this time. Depending on the timing of the request, copying the production database to the test database may require some additional downtime for the production database.

Test/Staging Databases will NOT be backed up (though they will be on resilient hardware). In the unlikely event that a database is rendered unusable, it will be recreated from a production copy of the customer's database (in lieu of restoration from a backup that would be used in the event a production database needed to be restored).

T2 Staging/Test Hosting Environment Backup Uptime and Availability

Databases will not be available in the event of a disaster until normal operations resumes. Upon resumption of normal operations after a disaster, databases will be recreated from a production copy of the customer's database.

Though T2 will make reasonable efforts to keep databases available the vast majority of the time, databases will not be subject to the normal Uptime and Availability for T2's Production Hosting Environment and Staging/Test's availability will not be used in the calculation of uptime/downtime.