



## CONTRACT RENEWAL LETTER

**Date:** March 06, 2023  
**Contract #:** UCPJMU5507  
**Service:** Vehicle Count Systems  
**Renewal Period:** 5/8/2023 to 5/7/2024  
**Renewal #:** 4 of 4 One-Year  
**Issued By:** James Madison University  
Michael Morrison, Buyer Senior  
Ph: 540-568-6181  
Fx: 540-568-7935

**Contractor:** TCS International, Inc.  
Attn: Dave Radford  
55 Union Ave  
Sudbury, MA 01776

**Contract Administrator:** Bill Yates, Parking

### **Description of Renewal Notice:**

In accordance with the renewal provision of the original contract all terms, conditions, and specifications of the original contract remain the same during the contract renewal period, along with any modifications that have been incorporated up until this point. The contract pricing will remain the same and is attached to this renewal.

All invoices shall be submitted within sixty days of contract renewal term expiration as well as for each subsequent contract renewal period. Any invoices submitted after the sixty day period will not be processed for payment.

Return one executed renewal notice to my attention within ten days.

### **TCS International, Inc.**

**By:**

Dave Radford

Name (print)

President

Title

MAR 6 2023

Date Signed

### **James Madison University**

**By:**

Michael Morrison  
Michael Morrison, MS, VCCO, CUPO

Name (print)

Buyer Senior

Title

5/6/2023

Date Signed



**Contract #:** UCPJMU5507

**Renewal #4**

**Contractor:** TCS International, Inc.

**Renewal Period:** 05/08/2023 - 05/07/2024

**Commodity:** Vehicle Count Systems

Pricing Schedule	Discount/Rate
All Zones	See Attached Rate Sheet for products to be offered to the University
Charge Card Processing Fees: 0%	
No travel-related costs or travel time shall be charged.	

**TCS INTERNATIONAL PRESENTS**

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# **VEHICLE COUNT SYSTEM PRICE LIST REV5**

**JAMES MADISON UNIVERISTY**

## **CONTACT**

**TCS International Inc.**

**55 Union Avenue – Sudbury, MA 01776**

**P. 978.443.2527**

**7243375 Canada Inc./ TCS International**

**3445 Lake Shore Dr W**

**Etobicoke, ON M8W 1N2**

**P. 416.259.4862**

**E. [sales@tcsintl.com](mailto:sales@tcsintl.com) W. [www.tcsintl.com](http://www.tcsintl.com)**





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## 1.0 System Hardware Breakdown

The proposal is the recommended system design based on a typical garage as currently installed at James Madison University:

### 1.1 Vehicle Count System Hardware:

#### 1.1.1 Single Space Sensor System:

QTY	PART#	DESCRIPTION	UNIT COST
1	TUS-300	<b>RGB Single Space Sensor:</b> <ul style="list-style-type: none"><li>• Smart design located at the end of each covered parking space for higher visibility.</li><li>• Measuring vehicle occupancy through ultrasonic distance measurement.</li><li>• Occupancy status indicating LEDs:<ul style="list-style-type: none"><li>○ RGB color standard space units with i.e., green status for available space, red status for occupied space, and amber status for reserved or EV space and blue status for handicapped space, etc. provided</li><li>○ Freely programmable RGB colors to fit customer requirements</li></ul></li><li>• IP 65 rating.</li><li>• RS-485 multi-drop communications to area controller; and</li><li>• Max. mounting height 3 m.</li></ul>	<b>\$78.00</b>
1	HHP	<b>Handheld Programming Unit for Single Space Sensors</b>	<b>\$60.00</b>
1	SS-CP	<b>Communication Enclosures:</b> All components for local network wireless clusters connected to communication points (CP): <ul style="list-style-type: none"><li>• Single space communication point enclosure provided including:<ul style="list-style-type: none"><li>○ Single space zone controllers:</li></ul></li><li>• Configured to manage inputs from all facility single space sensors.</li><li>• Monitors single space sensors, maximum 96 single space sensors per area controller (3 bus lines).</li><li>• Bus line maximum cable length 100 meters.</li><li>• Total quantity depending on floor plan layouts.</li><li>• Offline operation if communication to server fails.</li><li>• Wireless communication chip &amp; antenna.<ul style="list-style-type: none"><li>○ Peripheral equipment (i.e., power supplies, etc.).</li></ul></li><li>• Equipment pre-configured in 18" x 16" x 8" NEMA 4 PVC indoor enclosure.</li></ul>	<b>\$1,335.00</b>

### 1.1.2 Ultrasonic Directional Sensors for Level/Zone Counting:


QTY	PART#	DESCRIPTION	UNIT COST
1	USDS	<b>Ultrasonic Directional Sensor:</b> <ul style="list-style-type: none"> <li>For use in a three (3) unit cluster configuration or single unit configuration to cover varying widths of garage/level entrances/exits.</li> <li>Built in central processing unit to control sensor logic.</li> <li>Built in self-test diagnostics.</li> <li>Maximum mounting height 8 ft.</li> <li>Directional counting of vehicles.</li> <li>Maximum effective speed 12 mph.</li> <li>24 VDC low voltage.</li> <li>Output: plus-minus pulses and/or serial interface via RS-485.</li> <li>Max. 24'/Delineation required for optimal cluster counting accuracy.</li> <li>Max. 12'/Delineation required for optimal standard counting accuracy.</li> <li>Dimensions: 74" L x 2.75" H x 2.5" W; and</li> <li>Weight: 15.5 lbs.</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>Patent pending.</li> <li>Proximity of vehicles under sensor can skew accuracy.</li> <li>Spacing of sensors depends on garage floor layout and is customized per installation; and</li> <li>TCS is not responsible for accurate system counts if proper lane delineation, if required, is not implemented, and maintained by others.</li> </ul>	\$956.00
1	USDS-CP	<b>Communication Point Enclosures:</b> All components for local network wireless clusters connected to USDS communication points (CP). <ul style="list-style-type: none"> <li>Ultrasonic directional sensor communication point enclosures provided including: <ul style="list-style-type: none"> <li>Wireless communication equipment (i.e., modems, power supplies, etc.);</li> <li>Power supplies for USDS and/or signs; and</li> <li>Peripherals, etc.</li> </ul> </li> <li>Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosures.</li> </ul>	\$944.00
1	RP	<b>Repeater Communication Point Enclosure:</b> All components for local network wireless clusters connected to repeater communication points (RP) to ensure proper wireless communication. <ul style="list-style-type: none"> <li>Repeater point enclosure provided including: <ul style="list-style-type: none"> <li>Wireless communication equipment (i.e., modems, power supplies, etc.)</li> <li>Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosures</li> </ul> </li> </ul>	\$859.00

QTY	PART#	DESCRIPTION	UNIT COST
1	DP	<b>Directional Delineation Posts:</b> <ul style="list-style-type: none"> <li>Lane delineation equipment used to ensure proper vehicle counts.</li> <li>Min. box of (25) units</li> <li>Used to properly channel traffic under count sensor.</li> <li>36" standard post.</li> <li>Includes two (2) reflector stripes.</li> <li>Adhesive pads provided.</li> <li>Installation by others.</li> <li>Max. 24'/Delineation required for optimal cluster counting accuracy; and</li> <li>Max. 12'/Delineation required for optimal standard counting accuracy.</li> </ul>	\$54.00
1	GW	<b>Gateway Enclosure:</b> All components for local network wireless clusters connected to wireless gateway (GW). <ul style="list-style-type: none"> <li>Wireless gateway enclosure provided including: <ul style="list-style-type: none"> <li>Wireless communication equipment (i.e., gateways, power supplies, etc.).</li> </ul> </li> <li>Equipment pre-configured in 14" x 12" x 6" NEMA 4 PVC indoor enclosure</li> </ul> <p><i>NOTE: Wireless gateway (GW) must be physically connected to the existing customer network or directly to the PGS server.</i></p>	\$1,342.00


### 1.1.3 Outdoor Lot Monitoring Equipment:

QTY	PART#	DESCRIPTION	UNIT COST
1	CAM3	<b>Mistall Camera:</b> <ul style="list-style-type: none"> <li>Overview camera with wide-angle lens</li> <li>To be installed on existing/new poles</li> </ul> <p><i>Note: The higher the mounting height the higher the counting accuracy.</i></p>	\$436.00
1	CBD4	<b>Control Board:</b> <ul style="list-style-type: none"> <li>Control board ver4 for camera management</li> </ul>	\$306.00
1	SOLAR	<b>Solar Power:</b> <ul style="list-style-type: none"> <li>Electrical box and mount for 30W solar panel</li> </ul>	\$645.00
1	SOLAR	<b>Solar Power:</b> <ul style="list-style-type: none"> <li>Electrical box and mount for 20W solar panel</li> </ul>	\$610.00
1	MNTAC	<b>AC Power:</b>	\$173.00
1	WPETH	<b>Access Point Ethernet:</b>	\$293.00
1	MODEM	<b>High Speed Cellular for Camera Locations:</b> <ul style="list-style-type: none"> <li>High speed cellular modem for backend communication</li> </ul>	\$341.00

## 1.2 Space Availability Signage:

QTY	PART#	DESCRIPTION	UNIT COST
1	WFS/ 3x7.5	<b>Wayfinding Sign Type 1 (Sample Sign Design):</b> <ul style="list-style-type: none"> <li>New wayfinding sign indicating space availability for (2) parking garages per new Master Plan sign design</li> <li>To be installed on existing foundation/s using existing J-bolts or new foundations by others</li> <li>Total of (2) space availability displays per sign cabinet: <ul style="list-style-type: none"> <li>Number of spaces and OPEN in double stroke green LEDs with 7.5" LED character height; and</li> <li>FULL in single stroke 6" LED character height.</li> </ul> </li> <li>White reflective vinyl lettering.</li> <li>Includes single 8' clearance pole</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>Sign price only for quoted sign dimensions, design and mounting. Changes to sign design, dimensions, mounting etc. will require a new quote.</li> <li>Footers by others</li> </ul> 	\$29,552.00
1	XBEE-SIGN	<b>Wireless Communication Equipment for Wayfinding Sign Type 1 Locations:</b> <ul style="list-style-type: none"> <li>Includes (2) 120 VAC wireless modems, antenna, peripherals, etc. for Entry Sign 1 location/s</li> </ul>	\$761.00
1	WFS/ 3x7.5/INST	<b>Delivery &amp; Installation of Wayfinding Sign Type 1</b> <ul style="list-style-type: none"> <li>Includes delivery and installation of Type 1 Wayfinding Sign on existing/provided footings by others</li> </ul>	\$3,510.00



QTY	PART#	DESCRIPTION	UNIT COST
1	ES-1/ 3x7.5/ 12x96 VMS	<b>Entry Sign Type 1 (Sample Sign Design):</b> <ul style="list-style-type: none"> <li>Entry Sign Type 1 indicating space availability for parking garage per new Master Plan sign design</li> <li>To be installed on existing foundation/s using existing J-bolts</li> <li>Total of (3) space availability displays per sign cabinet: <ul style="list-style-type: none"> <li>Number of spaces and OPEN in double stroke green LEDs with 7.5" LED character height; and</li> <li>FULL in single stroke 6" LED character height.</li> </ul> </li> <li>Total of (1) 12x96 VMS displays per sign cabinet: <ul style="list-style-type: none"> <li>Full color RGB</li> <li>Ability to display 1 row of 5" text with up to 12 characters per row</li> <li>Scrolling capabilities</li> <li>11.55mm pixel pitch</li> </ul> </li> <li>White reflective vinyl lettering.</li> <li>Includes double posts</li> </ul>  <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>Sign price only for quoted sign dimensions, design and mounting. Changes to sign design, dimensions, mounting etc. will require a new quote.</li> <li>Footers by others</li> </ul>	\$22,704.00
1	XBEE-SIGN/VMS	<b>Wireless Communication Equipment for Entry Sign 1 Locations:</b> <ul style="list-style-type: none"> <li>Includes (2) 120 VAC wireless modems, antenna, peripherals, etc. for Entry Sign 1 location/s</li> </ul>	\$761.00
1	ES-1/ INST	<b>Delivery &amp; Installation of Entry Sign Type 1</b> <ul style="list-style-type: none"> <li>Includes delivery and installation of Entry Sign Type 1 on existing/provided footings by others</li> </ul>	\$2,614.00

QTY	PART#	DESCRIPTION	UNIT COST
1	ES-2/ 1x7.5/ 1x12x96 VMS	<b>Entry Sign Type 2 (Sample Sign Design):</b> <ul style="list-style-type: none"> <li>Entry Sign Type 2 indicating space availability for parking garage per new Master Plan sign design</li> <li>To be installed on existing foundation/s using existing J-bolts</li> <li>Total of (1) space availability display per sign cabinet: <ul style="list-style-type: none"> <li>Number of spaces and OPEN in double stroke green LEDs with 7.5" LED character height; and</li> <li>FULL in single stroke 6" LED character height.</li> </ul> </li> <li>Total of (1) 12x96 VMS displays per sign cabinet: <ul style="list-style-type: none"> <li>Full color RGB</li> <li>Ability to display 1 row of 5" text with up to 12 characters per row</li> <li>Scrolling capabilities</li> <li>11.55mm pixel pitch</li> </ul> </li> <li>White reflective vinyl lettering.</li> <li>Includes double posts</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>Sign price only for quoted sign dimensions, design and mounting. Changes to sign design, dimensions, mounting etc. will require a new quote.</li> <li>Footers by others</li> </ul>	\$13,473.00
1	XBEE-SIGN/VMS	<b>Wireless Communication Equipment for Entry Sign 2 Locations:</b> <ul style="list-style-type: none"> <li>Includes (2) 120 VAC wireless modems, antenna, peripherals, etc. for Entry Sign 2 location/s</li> </ul>	\$761.00
1	ES-2/ INST	<b>Delivery &amp; Installation of Entry Sign Type 2</b> <ul style="list-style-type: none"> <li>Includes delivery and installation of ES-2 entry sign 2 on existing/provided footings by others</li> </ul>	\$2,614.00



## 1.3 Software

### 1.3.1 Software License per Additional Garage/Lot for Existing PGS Server:

QTY	PART#	DESCRIPTION	TOTAL COST
1	SL	<b>Software License:</b> <ul style="list-style-type: none"><li>• Software license to integrate the new PGS equipment into existing PGS server.</li><li>• Per new garage/surface lot</li></ul> <i>Note: Customer is responsible for network connection between garages.</i>	<b>\$3,110.00</b>

### 1.3.2 Outdoor Lot Monitoring Recurring Costs (Annually):

QTY	PART#	DESCRIPTION	PER CAMERA COST	ANNUAL COST
1	SIMUS	<b>SIM Card and Data Plan</b> <ul style="list-style-type: none"><li>• Based on number of cameras provided</li><li>• Includes project specific SIM card and data plan for cellular communication.</li></ul> <i>Note:</i> <ul style="list-style-type: none"><li>• Invoiced annually at the beginning of each year.</li><li>• Price is for this particular project and is subject to change based on lot configuration.</li></ul>	<b>\$396.00</b>	<b>\$396.00</b>
1	SWSTD	<b>Software License</b> <ul style="list-style-type: none"><li>• Based on cameras provided</li><li>• Includes software license for Mistall Insight monitoring dashboard</li><li>• Hosted software solution for Mistall</li></ul> <i>Note:</i> <ul style="list-style-type: none"><li>• Invoiced annually at the beginning of each year.</li><li>• Price is for this project and is subject to change based on lot configuration.</li></ul>	<b>\$664.00</b>	<b>\$664.00</b>



## 1.4 Additional Provisions:

QTY	PART#	DESCRIPTION	UNIT COST
1	DES	<b>System Design:</b> <ul style="list-style-type: none"> <li>Hourly rate for standard in-house system design for new projects; and</li> <li>Includes documentation, drawings, and all related design work.</li> </ul>	\$152.00
1	PM	<b>Remote Project Management:</b> <ul style="list-style-type: none"> <li>Hourly rate to perform all off-site coordination and remote project management to supply the new PGS system expansion/s.</li> </ul>	\$163.00
1	RIS	<b>Remote Support:</b> <ul style="list-style-type: none"> <li>Hourly rate to provide remote support</li> </ul> <b>NOTE:</b> <ul style="list-style-type: none"> <li>All additional services and supporting expenses will be billed at standard rates if delays are caused by the customer or a third party.</li> <li>Remote installation support must be scheduled at least 1 week in advance.</li> <li>Remote installation support to be provided during regular business hours Mo-Fri 8 am to 4 pm EST.</li> </ul>	\$152.00
1	SITE-SUR	<b>Site Survey</b> <ul style="list-style-type: none"> <li>Site survey to review all existing sign locations to determine which cabinets/locations can be refaced and which locations require new sign cabinets as quoted included.</li> </ul>	\$3,602.00
1	SH	<b>Remote System Health Check:</b> <ul style="list-style-type: none"> <li>Inclusions: <ul style="list-style-type: none"> <li>Weekly remote system health check for 6-months for system expansions to ensure proper system functionality</li> </ul> </li> </ul> <b>Note:</b> Remote system access required.	Incl.
1	FR	<b>Standard Freight &amp; Handling</b> <ul style="list-style-type: none"> <li>Invoiced when/as provided</li> </ul>	N/A
1	2YW	<b>2-Year Warranty</b>	Incl.



## 1.5 Exclusions:

DESCRIPTION
<p><b>Exclusions:</b></p> <p><b>The following is excluded in this proposal:</b></p> <ul style="list-style-type: none"><li>• Related civil work, including but not limited to:<ul style="list-style-type: none"><li>○ Electrical work includes conduit for communications &amp; power, power wiring, and final electrical connections.</li><li>○ Required digging, trenching, coring, etc.; and</li><li>○ Concrete, asphalt, and protective bollards.</li></ul></li><li>• Any type of penetrating survey/initiatives to any structure required to install PGS equipment, signage, conduit, etc.</li><li>• A/P connection/s to customer network.</li><li>• Wireless interference.</li><li>• Installation of the PGS components other than for availability signs as selected.</li><li>• Bonds, insurance, permits, engineering drawings, certifications, foundation design, foundation, delineation, etc.</li><li>• Traffic control; and</li><li>• Lost revenue.</li></ul> <p><i>NOTE: All additional services and supporting expenses will be billed per standard rates if delays are caused by customer or a third party.</i></p>