



5. Offer The Bidder hereby offers to perform the Work in accordance with the Contract for the Price(s), in Canadian funds, set out on Form B: Prices, appended hereto.
6. Execution of Contract The Bidder agrees to execute and return the Contract no later than seven (7) Calendar Days after receipt of the Contract, in the manner specified in C4.1.
7. Commencement of the Work The Bidder agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.
8. Contract The Bidder agrees that the Request for Proposal in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Proposal.
9. Addenda The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:
- | No.   |  | Dated |  |
|-------|--|-------|--|
| _____ |  | _____ |  |
| _____ |  | _____ |  |
| _____ |  | _____ |  |
10. Time This offer shall be open for acceptance, binding and irrevocable for a period of one-hundred and twenty (120) Calendar Days following the Submission Deadline.

11. Signatures

The Bidder or the Bidder's authorized official or officials have signed this

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ .

Signature of Bidder or  
Bidder's Authorized Official or Officials

\_\_\_\_\_

(Print here name and official capacity of individual whose signature  
appears above)

\_\_\_\_\_

(Print here name and official capacity of individual whose signature  
appears above)

**FORM B: PRICES**  
**ALTERNATIVE ONE (1) – Digital Technology**  
(See B10)

**SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM**

**UNIT PRICES**

ITEM NO.	DESCRIPTION	UNIT	AMOUNT
1.	Fixed Processing fee [see B10 and D3.1(f)] – (84 months)	per month	
The descriptions below refer to the volume of Offence Notices issued. Amounts listed should not be considered accumulative with lesser values but represent the sole variable cost associated to that volume of processing within a given month			
2.	Variable Fee for Volume of Offence Notices issued: 1 – 1,000	per month	
3.	Variable Fee for Volume of Offence Notices issued: 1001 – 2,000	per month	
4.	Variable Fee for Volume of Offence Notices issued: 2001 – 3,000	per month	
5.	Variable Fee for Volume of Offence Notices issued: 3001 – 4,000	per month	
6.	Variable Fee for Volume of Offence Notices issued: 4001 – 5,000	per month	
7.	Variable Fee for Volume of Offence Notices issued: 5,001 – 6,000	per month	
8.	Variable Fee for Volume of Offence Notices issued: 6,001 – 7,000	per month	
9.	Variable Fee for Volume of Offence Notices issued: 7,001 – 8,000	per month	
10.	Variable Fee for Volume of Offence Notices issued: 8,001 – 9,000	per month	
11.	Variable Fee for Volume of Offence Notices issued: 9,001 – 10,000	per month	
12.	Variable Fee for Volume of Offence Notices issued: 10,001 – 11,000	per month	
13.	Variable Fee for Volume of Offence Notices issued: 11,001 – 12,000	per month	
14.	Variable Fee for Volume of Offence Notices issued: 12,001 – 13,000	per month	
15.	Variable Fee for Volume of Offence Notices issued: 13,001 – 14,000	per month	
16.	Variable Fee for Volume of Offence Notices issued: 14,001 – 15,000	per month	
17.	Variable Fee for Volume of Offence Notices issued: 15,001 – 16,000	per month	
18.	Variable Fee for Volume of Offence Notices issued: 16,001 – 17,000	per month	
19.	Variable Fee for Volume of Offence Notices issued: 17,001– 18,000	per month	
20.	Variable Fee for Volume of Offence Notices issued: 18,001– 19,000	per month	
21.	Variable Fee for Volume of Offence Notices issued: 19,001– 20,000	per month	
22.	Variable Fee for Volume of Offence Notices issued: 20,001– 21,000	per month	
23.	Variable Fee for Volume of Offence Notices issued: 21,001– 22,000	per month	
24.	Variable Fee for Volume of Offence Notices issued: 22,001– 23,000	per month	
25.	Variable Fee for Volume of Offence Notices issued: 23,001– 24,000	per month	
26.	Variable Fee for Volume of Offence Notices issued: 24,001– 25,000	per month	
27.	Variable Fee for Volume of Offence Notices issued: 25,001 – 26,000	per month	

**FORM B: PRICES**  
**ALTERNATIVE ONE (1) – Digital Technology**  
(See B10)

**SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM**

**UNIT PRICES**

ITEM NO.	DESCRIPTION	UNIT	AMOUNT
28.	Variable Fee for Volume of Offence Notices issued: 26,001 – 27,000	per month	
29.	Variable Fee for Volume of Offence Notices issued: 27,001 – 28,000	per month	
30.	Variable Fee for Volume of Offence Notices issued: 28,001 – 29,000	per month	
31.	Variable Fee for Volume of Offence Notices issued: 29,001 – 30,000	per month	
32.	Variable Fee for Volume of Offence Notices issued: 30,001 – 31,000	per month	
33.	Variable Fee for Volume of Offence Notices issued: 31,001 – 32,000	per month	
34.	Variable Fee for Volume of Offence Notices issued: 32,001 – 33,000	per month	
35.	Variable Fee for Volume of Offence Notices issued: 33,001 – 34,000	per month	
36.	Variable Fee for Volume of Offence Notices issued: 34,001 – 35,000	per month	
37.	Variable Fee for Volume of Offence Notices issued: 35,001 – 36,000	per month	
38.	Variable Fee for Volume of Offence Notices issued: 36,001 – 37,000	per month	
39.	Variable Fee for Volume of Offence Notices issued: 37,001 – 38,000	per month	
40.	Variable Fee for Volume of Offence Notices issued: 38,001 – 39,000	per month	
41.	Variable Fee for Volume of Offence Notices issued: 39,001 – 40,000	per month	

GST & PST extra, where applicable.

\_\_\_\_\_  
Name of Bidder

**FORM B: PRICES**  
**ALTERNATIVE TWO (2) - Digital Technology**  
(See B10)

SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM

**UNIT PRICES**

ITEM NO.	DESCRIPTION	UNIT	AMOUNT
The descriptions below refer to the volume of Offence Notices issued. Amounts listed should not be considered accumulative with lesser values but represent the sole variable cost associated to that volume of processing within a given month			
1.	Volume of Offence Notices issued: 1 – 1,000	per Offence Notice issued	
2.	Volume of Offence Notices issued: 1,001 – 2,000	per Offence Notice issued	
3.	Volume of Offence Notices issued: 2,001 – 3,000	per Offence Notice issued	
4.	Volume of Offence Notices issued: 3,001 – 4,000	per Offence Notice issued	
5.	Volume of Offence Notices issued: 4,001 – 5,000	per Offence Notice issued	
6.	Volume of Offence Notices issued: 5,001 – 6,000	per Offence Notice issued	
7.	Volume of Offence Notices issued: 6,001 – 7,000	per Offence Notice issued	
8.	Volume of Offence Notices issued: 7,001 – 8,000	per Offence Notice issued	
9.	Volume of Offence Notices issued: 8,001 – 9,000	per Offence Notice issued	
10.	Volume of Offence Notices issued: 9,001 – 10,000	per Offence Notice issued	
11.	Volume of Offence Notices issued: 10,001 – 11,000	per Offence Notice issued	
12.	Volume of Offence Notices issued: 11,001 – 12,000	per Offence Notice issued	
13.	Volume of Offence Notices issued: 12,001 – 13,000	per Offence Notice issued	
14.	Volume of Offence Notices issued: 13,001 – 14,000	per Offence Notice issued	
15.	Volume of Offence Notices issued: 14,001 – 15,000	per Offence Notice issued	
16.	Volume of Offence Notices issued: 15,001 – 16,000	per Offence Notice issued	
17.	Volume of Offence Notices issued: 16,001 – 17,000	per Offence Notice issued	
18.	Volume of Offence Notices issued: 17,001– 18,000	per Offence Notice issued	
19.	Volume of Offence Notices issued: 18,001– 19,000	per Offence Notice issued	
20.	Volume of Offence Notices issued: 19,001– 20,000	per Offence Notice issued	
21.	Volume of Offence Notices issued: 20,001– 21,000	per Offence Notice issued	
22.	Volume of Offence Notices issued: 21,001– 22,000	per Offence Notice issued	
23.	Volume of Offence Notices issued: 22,001– 23,000	per Offence Notice issued	
24.	Volume of Offence Notices issued: 23,001– 24,000	per Offence Notice issued	
25.	Volume of Offence Notices issued: 24,001– 25,000	per Offence Notice issued	
26.	Volume of Offence Notices issued: 25,001 – 26,000	per Offence Notice issued	
27.	Volume of Offence Notices issued: 26,001 – 27,000	per Offence Notice issued	

**FORM B: PRICES**  
**ALTERNATIVE TWO (2) - Digital Technology**  
(See B10)

SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM

**UNIT PRICES**

ITEM NO.	DESCRIPTION	UNIT	AMOUNT
28.	Volume of Offence Notices issued: 27,001 – 28,000	per Offence Notice issued	
29.	Volume of Offence Notices issued: 28,001 – 29,000	per Offence Notice issued	
30.	Volume of Offence Notices issued: 29,001 – 30,000	per Offence Notice issued	
31.	Volume of Offence Notices issued: 30,001 – 31,000	per Offence Notice issued	
32.	Volume of Offence Notices issued: 31,001 – 32,000	per Offence Notice issued	
33.	Volume of Offence Notices issued: 32,001 – 33,000	per Offence Notice issued	
34.	Volume of Offence Notices issued: 33,001 – 34,000	per Offence Notice issued	
35.	Volume of Offence Notices issued: 34,001 – 35,000	per Offence Notice issued	
36.	Volume of Offence Notices issued: 35,001 – 36,000	per Offence Notice issued	
37.	Volume of Offence Notices issued: 36,001 – 37,000	per Offence Notice issued	
38.	Volume of Offence Notices issued: 37,001 – 38,000	per Offence Notice issued	
39.	Volume of Offence Notices issued: 38,001 – 39,000	per Offence Notice issued	
40.	Volume of Offence Notices issued: 39,001 – 40,000	per Offence Notice issued	

GST & PST extra, where applicable.

\_\_\_\_\_  
Name of Bidder

**FORM B: PRICES**  
**ALTERNATIVE THREE (3) – Digital Technology**  
(See B10)

SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM

**UNIT PRICES**

ITEM NO.	DESCRIPTION	UNIT	AMOUNT
1.	Fixed Processing fee [see B10 and D3.1(f)} – (84 months)	per month	

GST & PST extra, where applicable.

\_\_\_\_\_  
Name of Bidder

## DETAILED SPECIFICATIONS - RESPONSE INSTRUCTIONS

All of the clauses of these Detailed Specifications require a response by the Bidder, using Yes or No, in the area marked by a box, provided beside the clause:

<b><u>Response Code</u></b>	<b><u>Definition</u></b>
<b>Yes</b>	The proposed equipment or service complies with the requirement.
<b>No</b>	The proposed equipment or service does not comply with the requirement.

In addition:

If a further response is required by an instruction, the Bidder may insert his response directly beside the instruction or provide it in a separate document included in his Proposal Submission.

If the response is provided in a separate document, the response must reference the number of the relevant Item number of the Detailed Specifications. The Bidder is requested not to reiterate the clause itself in the attachment.

If the Bidder wishes to provide any additional information that may be relevant to the Photo Enforcement Program (eg. Additional Features, Planned Future Enhancements etc) it may be included as a separate document. The City will consider such submissions as information only.

If the response is "No", for any item, an explanation as to why the specific requirement cannot be met and why it should not be considered a disadvantage in evaluating your proposal is requested.

Failure to respond to a clause of the Detailed Specifications Checklist that requires a response will be interpreted as a "No" response (The proposed equipment or service does not comply with the requirement).

**FORM N: DETAILED SPECIFICATIONS**

ITEM	DESCRIPTION	YES	No
<b>INTERSECTION SAFETY CAMERA (ISC) AND PHOTO RADAR SYSTEM REQUIREMENTS</b>			
1.	The Contractor shall be capable of supply, installation and operation of a digital system. The Bidder shall include documentation to describe the systems and their components.		
<b>INTERSECTION SAFETY CAMERA (ISC) REQUIREMENTS</b>			
2.	The Photo Enforcement Program incorporates an Intersection Safety Camera with speed determination capabilities proven in on-the-street service for photographing red light and speeding violations.		
3.	The Intersection Safety Camera Requirements include fifty (50) Intersection Safety Camera locations capable of enforcement, serviced by thirty-three (33) cameras on a rotational basis as determined by the Contract Administrator.		
4.	The digital system incorporates summons-processing software used for issuing summonses and/or warning notices for speeding violations. List at least three (3) separate jurisdictions in North America including contacts and date of operation, where the proposed summons-processing system has been operated to enforce photo enforcement-evidenced traffic violations.		
5.	The digital system has been proven in continuous on the street service for photographing red light running violations. List at least three (3) separate jurisdictions in North America, including contacts and date of operation, where the Intersection Safety Camera has been operated, each for a minimum of one (1) year. For each jurisdiction provide the number of Intersection Safety Cameras involved.  The Intersection Safety Cameras are not necessarily required to be currently in operation, but jurisdictions in North America where the intersection cameras were formerly in operation for a minimum period of one (1) year are acceptable in accordance with the requirements stated in Items 6 & 7.		
6.	The system shall not be based on the use of video cameras that record images on magnetic media or via frame grabbing hardware and software.		
7.	The detection system shall use Electromotive Force (EMF) inductive magnetic loops. Due to concern for durability and accuracy, piezo loops and video detection systems are not acceptable.		
<b>FUNCTIONAL REQUIREMENTS</b>			
8.	Bidders shall provide image and data security procedures along with Continuity of Evidence procedures for the digital systems regarding Intersection Safety Cameras. Further, in regards to digital systems, the information provided shall be sufficient to prove to a Court of Law that the electronic image is in its original format and has not been altered, changed, amended or tampered with in any way whatsoever. Bidders shall include information such as electronic data integrity and security including but not limited to encryption, secure interconnects, file storage and data compression.		
9.	The system shall be capable of identifying and photographing vehicles traveling through a signalized intersection on the red phase (red light violation) and speeding through the intersection during all three light phases of traffic control using the same inductive loop system. The system shall take two images of the rear of the vehicle as it proceeds through the intersection, one with the vehicle prior to the stop line and one with the vehicles clearly within the intersection.		
10.	Each violation will include two images of the violation.		

**FORM N: DETAILED SPECIFICATIONS**

ITEM	DESCRIPTION	YES	No
11.	<p>The system shall be installed so that each violation can be recorded by the camera unit at all times of the day, during all seasons of the year, and under varying conditions of sunlight and shadowing, and at night. The image shall incorporate the following views:</p> <ul style="list-style-type: none"> <li>a) Rear view of vehicle;</li> <li>b) Characters and numbers on reflectorized and non-reflectorized license plates; and</li> <li>c) Superimposed Data Information.</li> </ul>		
12.	<p><b>First Image</b> The first visual image must be recorded immediately prior to a vehicle's front tires touching the stop line. The first image triggered by the Intersection Safety Camera shall contain all objects within the area of the camera's view, including</p> <ul style="list-style-type: none"> <li>a) The vehicle's front tire;</li> <li>b) The stop line;</li> <li>c) The vehicle's rear license plate displaying the alphanumeric characters unique to each license plate;</li> <li>d) The traffic signal indication and colour of traffic signal indication displayed; and</li> <li>e) The intersection scene.</li> </ul> <p>The first image must be able to be printed to sufficient resolution such that all the above elements are clearly identifiable.</p> <p><b>Second Image</b> The camera must record the second visual image at a suitable distance from the stop line. The second image triggered by the Intersection Safety Camera shall contain all objects within the area of the camera's view, including;</p> <ul style="list-style-type: none"> <li>f) The vehicle, if present, positioned in the intersection</li> <li>g) The vehicle's rear license plate displaying the alphanumeric characters unique to each license plate;</li> <li>h) The traffic signal indication and colour of traffic signal indication displayed; and</li> <li>i) The intersection scene.</li> </ul>		
13.	<p>The proposed digital system shall be fully suitable and functional for unattended use, under climatic conditions of the City of Winnipeg. Provide documentation including contacts and date of operation where the proposed digital system has been successfully installed and operated in geographical locations with climatic conditions similar to the City of Winnipeg.</p>		
14.	<p>The Contractor shall attend at each intersection safety camera site at a minimum of two (2) times per week or additionally as required, to retrieve all image and data evidence and to perform general maintenance and required testing. Under no circumstances shall the Contractor download image and data evidence remotely from any Intersection Safety Camera location or Photo Radar/Laser vehicle via internet or any other means. The Contractor shall ensure that the ability to remotely download data or test Intersection Safety Camera sites shall be disabled in such a manner that will be acceptable to the Contract Administrator.</p>		
15.	<p>The Contractor shall ensure that all intersections safety cameras are serviced to indicate the correct time by 11:00 am on the two days of each calendar year where the official time changes by law from or to Central Standard Time from or to Day Light Savings Time</p>		
16.	<p>The system shall be fully suitable and functional for ease of installation, servicing and maintenance on a daily basis.</p>		

<b>CAMERA HOUSING AND POLE</b>			
17.	The Contractor will install camera housings and poles at locations determined by the City. The installation will include: a) Complete construction responsibility; b) Interfacing with existing traffic control signals; c) Obtaining the necessary permits from respective utilities; d) Establishment of a power source; and e) All construction plans must conform to the City of Winnipeg Standards.		
18.	A weather and vandal proof, lockable housing shall be provided to protect the camera unit and its ancillary equipment, which shall include: a) Water and spray resistant with sealed access panel; b) Double walled steel construction including welded joints; c) Baked enamel or powder coat paint finish; d) Minimum of three (3) security locks; e) Housing shall mount atop the pole so as to allow both horizontal and vertical adjustment at the intersection; and f) Pole shall be vertically manual (crown) or motorized.		
19.	The housing shall be securely mounted on the top of the pole. The pole and cabinet shall have the following characteristics: a) 10-12 feet from ground level to base of housing; b) Allow for lowering of the cabinet to street level for easy servicing; c) Constructed of steel with welded joints; d) Zinc dipped and enamel painted for weather protection; e) Securely installed to comply with City of Winnipeg Standard mounting practices; f) Provide access for conduits.		
20.	The cabinet shall be constructed so that the system is able to operate inside the cabinet under an outside temperature range of -30°C to +30°C and an outside humidity limit of 99 percent.		
21.	The camera housing shall contain a heating system which will reduce any fogging on the windows which may obstruct the view of the camera		
22.	All cable assemblies and terminal blocks shall be located within the pole housing.		
23.	All terminal blocks for input from the signal controller shall be UL or CSA approved.		
24.	The unit shall operate on 110V AC 60Hz power supply, fused to protect the camera unit.		
25.	The pole shall have a terminal block readily accessible to accept the power, red light, and amber light and loop inputs.		
<b>THE CAMERA UNIT</b>			
26.	The camera unit shall be on the Conforming Product List of the International Association of Chiefs of Police (IACP) and will be subject to Provincial Regulatory approvals.		
27.	The camera unit shall provide high-resolution images of the vehicle making the violation. The images shall be recorded on a digital memory medium (ie. hard drive, flash stick or card) for the digital system.		
28.	The operation of the camera shall be microprocessor controlled and fully automatic.		
29.	The camera unit shall be portable and easily removable from the cabinet housing. Camera units shall be interchangeable so as to allow easy relocation to other sites pre-installed with the poles, cabinets and detection zones.		
30.	The camera unit shall be constructed as one single unit incorporating the camera, flash, digital loop detector, keypad, and associated electronics.		
31.	Camera Unit Deployment: Year One; 33 camera units for 50 camera unit housings.		
32.	The camera unit shall be operable when placed into the housing cabinet and properly connected via Amphenol type connectors		

33.	<p>The camera unit shall provide an LCD display of the current day, date and time (24 hour clock) so that it can easily be verified that the clock is functioning and set to the correct time. Service personnel shall be able to easily set the day, date and time on the street.</p> <p>At a minimum, the system clock shall maintain the current time to within one (1) minute over a period of no less than seven (7) days.</p>		
34.	<p>The camera unit shall provide for placement of filters in front of the camera lens and the flash unit.</p> <p>This is in order to compensate for Retro reflective plates, currently used in Manitoba Licence Plates.</p>		
35.	<p>The camera lenses shall be interchangeable. Depending on the location, it may be necessary to use lenses ranging from 45mm with a viewing angle of 42° to 150mm with a viewing angle of 12°. All lenses shall be fixed focus.</p>		
36.	<p>The camera unit shall be connected to the traffic signal controller to obtain the following:</p> <ul style="list-style-type: none"> <li>a) Contact closure of signal when traffic lights enter the amber phase;</li> <li>b) Contact closure of signal when traffic light enters the red phase;</li> <li>c) Monitor and display on LCD panel the number of seconds in which the signal has been in the amber and red phase;</li> <li>d) Power Source (110V AC).</li> </ul> <p>The interface between the camera unit and the traffic signal equipment shall be coupled so that there is no interference with the operation of the traffic signal equipment. Power and signal phase current shall be fused at a rating no higher than 10 amps.</p>		
37.	<p>The camera unit shall allow for on-site adjustment of camera activation. At a minimum, on-site adjustment shall be allowed for:</p> <ul style="list-style-type: none"> <li>a) User to specify the delay time in tenths of a second;</li> <li>b) User to specify the time-distance interval between first and second violation image;</li> <li>c) The date, day and time;</li> <li>d) The minimum speed needed to activate camera in 1 km/h increments;</li> <li>e) The distance between loops; and</li> <li>f) Timer operation for automatic on/off activation.</li> </ul>		
38.	<p>Two images shall be taken for each violation recorded by the system. The time-distance interval of exposure between the two images taken to record a violation shall be adjustable in tenths of a second. Adjustment shall be on-site. Units that require firmware (e-prom) or software changes for adjustment are <u>not</u> acceptable.</p>		
39.	<p>The system shall be capable of monitoring no less than four (4) violations per each red phase.</p>		
40.	<p>The camera unit shall be capable of counting the number of violations and traffic volumes. Traffic volumes must be counted by lane and for speed sensitive systems no less than two lanes of operation.</p>		
41.	<p>The camera shall provide the capability to calculate and monitor vehicle speed, so that violations may be recorded only when vehicles have entered the detection zone during the red light and are exceeding a user specified minimum speed.</p> <p>The minimum speed shall be adjustable to the nearest kilometer per hour within a range of zero to 50 km/h.</p>		
42.	<p>The camera unit must be capable of photographing violations at a rate of no less than 2 frames per second.</p>		

43.	<p>The camera unit shall be designed so that malfunctions can be easily identified and debugged and shall:</p> <ul style="list-style-type: none"> <li>a) Perform self-test on the photographic unit and flash;</li> <li>b) Simulate a violation being recorded for testing;</li> <li>c) Provide warning lights and error messages for selected malfunctions; and</li> <li>d) Record date and time of camera shutdown in the event of a malfunction or when image storage runs out.</li> </ul>		
44.	<p>The camera unit shall be designed so that service personnel without specialized equipment can easily change the memory storage unit and verify that the memory storage unit has been correctly installed in the camera.</p>		
45.	<p>The camera unit shall be designed so that service personnel without specialized equipment can easily perform the following functions on the street.</p> <ul style="list-style-type: none"> <li>a) Setting the day, date, and time (24 hour clock);</li> <li>b) Adjust the minimum speed for recording violation;</li> <li>c) Adjust for the delay time, or number of elapsed seconds (in tenths of a second) since light has turned red before violation is recorded;</li> <li>d) Adjust for the time-distance interval, or number of elapsed seconds (in tenths of a second) between the first and second image for a recorded violation;</li> <li>e) Set the location code. Allow for a minimum of four (4) spaces for a numeric location identification number;</li> <li>f) Setting for the number of hours of operation for each day of the week;</li> <li>g) Setting of "sleep time" for operation on a timer;</li> <li>h) Initialize the traffic count; and</li> <li>i) Perform on-site system test including test image.</li> </ul>		
46.	<p>The camera unit shall use a one-time use digital image memory hard drive, flash stick or card and:</p> <ul style="list-style-type: none"> <li>a) Maximum megapixels available for high resolution images (bidder to provide details);</li> <li>b) Save images in a JPEG or TIF format; and</li> <li>c) Sufficient memory to record no less than 400 violations per memory medium. (800 images).</li> </ul>		
47.	<p>Camera unit shall save colour images.</p>		
48.	<p>The memory medium shall be coupled to the camera unit and easily removed for daylight loading and unloading.</p>		
49.	<p>The data must be superimposed onto the image simultaneously with the exposure of the violation image. Systems that print or append the data to the image after the violation has occurred are <u>not</u> acceptable.</p>		
50.	<p>The data box shall contain the following data information for each violation sequence:</p> <ul style="list-style-type: none"> <li>a) Violation number;</li> <li>b) Date (MM/DD/YY) or (DD/MM/YY);</li> <li>c) Time (24 hour clock);</li> <li>d) Direction or lane in which violation occurred;</li> <li>e) Number of seconds amber aspect displayed;</li> <li>f) Number of seconds red aspect displayed;</li> <li>g) Location code; and</li> <li>h) Vehicle speed.</li> </ul> <p>Certain data elements may only be necessary on one of the two-image violation.</p>		
51.	<p>The system shall be capable of performing a self-test on the street. Self-testing shall be done during the green phase and recorded in the data box.</p>		

52.	At a minimum, the data recorded on the self-test shall include the following: a) Date; b) Time (24 hour clock); c) The designation of "Test" or "TST"; d) The lane or direction of the test; e) The pitch or loop distance for speed sensitivity; f) The velocity of the vehicle captured in the test image; g) The time-distance interval selected; h) The delay time selected; i) Whether front or rear detection has been selected.		
53.	At a minimum the data retained for each registration on the memory card shall include the information outlined in Items 50 & 52.		
54.	The camera system shall use a memory card capable of retaining a minimum of 6000 registrations.		
55.	At a minimum the data retained for each registration on the memory card shall include the information outlined in Items 50 & 52.		
56.	The information recorded on the Memory Card shall be easily downloadable to a PC-Compatible computer for statistical evaluation.		
<b>THE FLASH UNIT</b>			
57.	The flash unit shall be fully integrated into the camera unit so as to be part of a single camera system, allowing for easy relocation of a single piece system. A flash that is independent of the camera is not acceptable.		
58.	The flash unit shall be capable of providing adequate illumination for photographic violations under all light and weather conditions: a) For an area of up to a minimum of three (3) traffic lanes or approximately 35 feet wide at a distance of up to 150 feet; b) At varying levels of ambient light conditions; and c) For both the first and second violation images.		
59.	The flash unit shall be synchronized to the camera shutter at 1/1000 of a second		
60.	The flash shall be capable of operation in the following modes: a) Automatic – Flash activated when ambient light conditions dictate via photoelectric cell; and b) Manual – Flash activated for all images, no matter what ambient light conditions are present.		
61.	Flash intensity shall be selectable on the street with a maximum intensity of 200 W/s. At a minimum, the flash shall allow for three (3) selections (High, Medium, Low) the highest not to exceed 200 W/s.		
62.	At certain locations additional flash units may be necessary to provide adequate illumination for photographing violations. In such cases the primary flash via a wired RF or infrared sync impulse shall activate the secondary flash.		
63.	The flash shall be of full flash within 0.5 seconds of a previous discharge.		
64.	The flash must have a second flash of higher or equal intensity than the first flash.		
<b>VEHICLE DETECTION SYSTEM</b>			
65.	Digital Inductive loop detectors shall be used for vehicle detection. The loop detectors shall have the following features: a) Automatic self-tuning; b) Self-Adjusting; c) Automatic recovery outputs; d) Four (4) channel outputs; e) Individual pitch setting for each monitored lane; and f) Must be able to recognize individual vehicle profile as part of the process for speed determination to ensure accurate vehicle identification.		

66.	The digital loop detector shall be incorporated into the one-piece camera unit to allow for easy relocation between enforcement sites.		
67.	The digital loop detector control unit shall be installed to allow service personnel to easily initialize and adjust detector setting on the street.		
68.	No more than two (2) loops are to be installed per each lane and/or direction.		
69.	The digital detector shall be capable of proper detection of vehicles with loop distances (center – center) between 2.0 to 5.0 meters.		
70.	The detector system must be direction sensitive.		
71.	The detector system must be speed sensitive.		
<b>POWER SUPPLY</b>			
72.	The system shall operate under a main power supply voltage of 115V AC (10%) and 60 Hz (2%).		
73.	Backup power shall be provided so that the system clock and other data elements displayed on the image are maintained for a minimum of seven (7) days in the event of a main power supply failure.		
74.	The system power supply shall be protected by fuse or breaker rated at no more than 10 amps.		
75.	The system shall incorporate summons-processing software used for issuing summonses for speeding offences. List at least three (3) separate jurisdictions in North America including contacts and date of operation, where the proposed summons-processing system has been operated to enforce photo enforcement-evidenced traffic violations.		
<b>DIGITAL PHOTO RADAR REQUIREMENTS</b>			
76.	The photo radar enforcement system has been successfully installed and operated at no less than three (3) different geographic locations with climatic conditions similar to the City of Winnipeg. Provide documentation including contacts and date of operation.		
77.	The system incorporates summons-processing software used for issuing summonses for speeding offences. List at least three (3) separate jurisdictions in North America including contacts and date of operation, where the proposed summons-processing system has been operated to enforce photo enforcement-evidenced traffic violations.		
<b>FUNCTIONAL REQUIREMENTS</b>			
78.	Photo Radar system shall include ten (10) vehicles and one (1) spare vehicle wired to support the Photo Radar equipment, at least two (2) of these vehicles must be permanently equipped with both a front and rear system to allow for the vehicle to be deployed with the option of using either method. Vehicles shall be newer models, within three (3) years of the current model year, in a variety of non-descript styles and makes as approved by the Contract Administrator.		
79.	Bidders shall provide Image and data security procedures along with Continuity of Evidence procedures for the digital systems regarding Photo Radar. Further, the information provided, shall be sufficient to prove to a Court of law that the electronic image is in its original format and has not been altered, changed, amended or tampered with, in any way, whatsoever. Bidders shall include information such as electronic data integrity and security including but not limited to encryption, secure interconnects, file storage and data compression		
80.	The system shall be capable of identifying vehicles traveling through a radar beam, and taking an image of each vehicle traveling in excess of a predetermined speed threshold.		

81.	The system shall be capable of operation and record violations at all times of the day and night, during all seasons, and under varying conditions of sunlight and shadowing. The image shall incorporate the following views: a) View of the rear of the vehicle; b) Characters and numbers on reflectorized and non-reflectorized license plates; and c) Superimposed Data Information.		
82.	The camera must record the visual image at a suitable distance from the enforcement vehicle. The Image shall contain all objects within the area of the camera's view, including; a) The vehicle, if present, positioned on the roadway; and b) The vehicle's rear license plate displaying the alphanumeric characters unique to each license plate. The Image must be able to be printed to sufficient resolution such that all the above elements are clearly identifiable.		
83.	The system shall be fully suitable and functional for use under all weather conditions and must have been tested to a minimal temperature of (-30° C).		
84.	The system shall be easy to install, as well as service and maintain on a daily basis.		
85.	The Photo Radar unit may be constructed in a component configuration so that each component is separate from the other. At a minimum the component units must include the following: a) Camera Unit; b) Control Unit; c) Antenna Unit; d) Flash Unit; e) Energy Box or Power Unit.		
86.	The proposed photo radar system is CSA certified or equivalent. (Please submit documentation if applicable)		
87.	The Contractor shall take all reasonable steps to obtain CSA certification or equivalent for all products being used under this Contract.		
<b>THE RADAR CONTROL UNIT</b>			
88.	The radar control unit shall be constructed as a single ruggedized component.		
89.	The radar control unit shall have individual buttons used for the following specific functions: a) On/Off Button; b) Direction Switch; c) Radar Range Switch; d) Speed Threshold Inputs in 1 km/h increments; and e) Test Button.		
90.	The radar control unit shall have a LCD, or equivalent, window in which the speed of each passing vehicle is displayed.		
91.	The radar control unit shall allow for direction setting by the use of easily accessed, adjustable, system. Directions setting must allow for the following options: a) Approaching traffic; b) Receding traffic; and c) Simultaneous detection of both approaching and receding traffic.		
92.	Range setting must be easily adjustable for the following ranges: a) Low - Up to 2 lanes; b) High - Up to 4 lanes.		
93.	The radar control unit shall allow the operator to enter the minimum speed threshold at which a violation will be detected and photographed. Threshold setting shall be in increments of 1 km/h.		
94.	The radar control unit must allow for Digital Signal Processing of reflective radar signal.		

95.	All software needed to control the radar system and calculate the speed of vehicle in the beam must be incorporated into the control unit. All software must reside in the firmware (e-prom) of the control unit. DSP software cannot be downloadable to the control unit.		
96.	<p>The radar control unit shall have a single test button that when activated will initiate a test sequence which will test the control unit, radar, camera as well as all associated software and connections. The activation of the test button will result in an image to verify that the operator had performed the test sequence.</p> <p>The Unit shall be provided with a built-in test signal to simulate a measurement. The test signal shall be independent of the measuring circuit, and shall be capable of measuring the function and accuracy of all circuits from the sensor input or radar head. The test signal may operate automatically when the equipment is switched on, but it shall also be available for manual operation (test button). When the test signal operates a camera the image shall clearly show that the test signal has been generated</p> <p>At a minimum, the data recorded on the self-test image shall include the following:</p> <ul style="list-style-type: none"> <li>a) Date;</li> <li>b) Time (24 hour clock);</li> <li>c) The designation of "Test" or "TST"; and</li> <li>d) Patrol Vehicle Speed.</li> </ul>		
97.	In the event that a test sequence is not properly completed, the unit will not be capable of proceeding to the enforcement stage. A series of error messages must be displayed to inform the operator of the problem with the unit.		
98.	The control unit shall have a LED, or equivalent, indicator displaying the battery power level.		
99.	The control unit must possess the capability of generating an audio Doppler tone.		
100.	The audio Doppler tone must have the capabilities of volume control.		
101.	Power Supply 12V DC (10.8 - 15V DC)		
102.	The control unit must be fused to prevent any damage to the electronic components and sub system in the event of any power surge and/or cross wiring		
<b>THE CAMERA UNIT</b>			
103.	The camera unit shall provide high-resolution images of the vehicle making the violation. The images shall be recorded on a digital memory medium. (ie. hard drive, flash stick or card) for the digital system.		
104.	The system is not based on the use of video cameras that record images on magnetic media or via frame grabbing hardware and software		
105.	The operation of the camera shall be microprocessor controlled and fully automatic.		
106.	<p>The camera unit shall use a one-time use digital image memory hard drive, flash stick or card for the digital system and:</p> <ul style="list-style-type: none"> <li>a) Maximum megapixels available for high resolution images (bidder to provide details);</li> <li>b) Save images in a JPEG or TIF format; and</li> <li>c) Sufficient memory to record no less than 400 violations per memory medium. (400 images).</li> </ul>		
107.	Camera unit saves colour images.		
108.	The digital image memory medium shall be coupled to the camera unit and easily removed for daylight removal and replacement.		
109.	<p>The camera unit shall provide for placement of filters in front of the camera lens, and the flash unit.</p> <p>This is in order to compensate for Retro reflective plates, currently used in Manitoba Licence Plates.</p>		

110.	The camera unit shall be synchronized with a flash unit at. 1/1000 of a second. The flash unit must have the ability to be used in either manual or automatic modes		
111.	The camera unit shall record data information pertinent to each violation in a clear, concise fashion that will not interfere, in any manner, with the photo image.		
112.	The data must be superimposed onto the image simultaneously with the exposure of the violation image. Systems that print or append the data to the image after the violation has occurred are <u>not</u> acceptable.		
113.	The data box shall contain the following data information for each violation sequence: a) Date (MM/DD/YY) or (DD/MM/YY); b) Time (24-hour clock); c) Direction of travel (approaching or receding); d) Patrol Vehicle Speed; e) Offenders Overtaking Speed; f) Total Violation Speed; g) Image sequence number; h) Officers I.D. Number; and i) Location Code.		
114.	The camera unit must be capable of photographing violations at a rate of no less than 2 frames per second.		
115.	The camera lenses shall be interchangeable. Depending on the location, it may be necessary to use lenses ranging from 45 mm with a viewing angle of 42° to 150 mm with a viewing angle of 12°. All lenses shall be fixed focus.		
116.	The camera lens shall be of a fixed focus design.		
117.	The camera unit shall possess a memory card capable of retaining a minimum of 6000 registrations.		
118.	At a minimum the data retained for each registration on the memory card shall include the information outlined in Item 113.		
119.	The information recorded on the Memory Card shall be easily downloadable to a PC-Compatible computer for statistical evaluation.		
120.	The Camera unit shall possess a LCD, or equivalent, display allowing the officer to view the following: a) Date; b) Time; c) Frame Number or Image Number; and d) Speed of last vehicle.		
121.	All alphanumeric changes to the camera unit shall be accessible to the user in a simple, straightforward manner. Data entry must be prompted via a menu driven configuration displayed on the cameras LCD, or equivalent, display.		
122.	The camera unit and associate components must be separately fused to prevent electric damage in the event of power surges and/or cross wiring.		
<b>THE RADAR ANTENNA</b>			
123.	The radar antenna shall be constructed as a single ruggedized unit.		
124.	The radar antenna must be mounted outside of the passenger compartment.		
125.	The radar antenna must be of a slotted wave guide design, projecting a beam across the road.		
126.	The radar antenna must project a narrow beam across the road at a 20° angle to the flow of traffic (+/- 2°).		
127.	The antenna must be mounted at right angle to the flow of traffic. The 20° angle of the cross-the-road beam must be created by the antenna. Systems that require that the antenna point at the prescribed angle across the road are not permitted.		

128.	The radar antenna must be an approved model and listed on the International Association of Chiefs of Police (IACP) Conforming Product List. Must meet all requirements of the Speed Measuring Device Performance Specifications: Across-the-Road Radar Module as adopted and published by Highway Safety Committee of the IACP.		
129.	The radar unit must have an approved speed measuring range of 20 - 240 km/h.		
130.	The radar antenna must be capable of operation at temperatures as low as - 30° C.		
131.	The radar unit must conform to radiation standards in Canada. (Provide documentation).		
132.	The radar unit must transmit at a power level no higher than 2mw.		
133.	The radar antenna must be capable of monitoring traffic from either side of the road.		
134.	Power supply 12V DC (10.8 - 15V DC).		
<b>THE FLASH UNIT</b>			
135.	The flash unit should be composed of two components. A flash generator and a flash head.		
136.	The flash head must be fully weather proof and mounted outside of the passenger compartment, capable of operation at -30°C.		
137.	The flash bulb (strobe) shall have a life expectancy of no less than 50,000 flashes.		
138.	The flash bulb shall be protected from overheating in the event of multiple discharges within a short period of time.		
139.	The flash unit shall be capable of providing adequate illumination for photographic violations under all light and weather conditions: a) For an area of up to four traffic lanes; and b) At varying levels of ambient light conditions.		
140.	The flash unit shall be synchronized to the camera shutter at a minimum of 1/1000 of a second.		
141.	The flash shall be capable of operation in the following mode(s): a) Automatic - Flash activated when ambient light conditions dictate via photoelectric cell; and b) Manual - Flash activated for all images, no matter what ambient light conditions are present.		
142.	Flash intensity shall be selectable on the street with a maximum intensity of 300 W/s. At a minimum, the flash shall allow for two (2) selections (High & Low) the highest not to exceed 300 W/s.		
143.	The flash must be fully rechargeable within 0.5 seconds of a previous discharge.		
144.	The flash generator must possess a "test" button to allow the operator to test the flash without the use of the camera.		
145.	The flash generator must be powered by no more than 12V with a current draw of no more than 30A.		
<b>POWER SUPPLY</b>			
146.	Power to the radar system must be provided by means of a rechargeable external power source. Systems that require the use of the vehicles electrical system to power the Photo Radar unit are not permitted.		
147.	The rechargeable power supply must, at a minimum contain the following: a) A rugged leak proof plastic housing; b) A trickle charger operable at 110 V AC (60Hz); c) Amphenol type output sockets to connect to the Photo Radar system. The outputs must be protected against cross connection; d) At a minimum the power supply must last at least eight (8) hours per charge; and e) Recharge time shall not exceed 10 hours.		

148.	The internal batteries of the power supply pack shall be sealed lead acid types with power ratings of 12V, 26 Ah.		
149.	The power pack shall be fused to protect the Photo Radar unit, and the charger unit from any cross wiring and or power surges.		
150.	The power pack must not allow for the operation of the Photo Radar unit while it is being recharged.		
<b>DIGITAL PHOTO LASER SYSTEM</b>			
151.	The system incorporates summons-processing software used for issuing summonses for speeding offences.		
<b>FUNCTIONAL REQUIREMENTS</b>			
152.	The system will consist of four operational digital photo laser systems and one spare. These devices shall be portable and must be listed on the IACP Conforming Products List. The Photo Laser systems shall be capable of being mounted in the photo enforcement vehicle fleet as outlined in Item 78.		
153.	Bidders shall provide Image and data security procedures along with Continuity of Evidence procedures for the digital systems regarding Photo Laser. Further, the information provided, shall be sufficient to prove to a Court of law that the electronic image is in its original format and has not been altered, changed, amended or tampered with, in any way, whatsoever. Bidders shall include information such as electronic data integrity and security including but not limited to encryption, secure interconnects, file storage and data compression.		
154.	The system shall be capable of identifying vehicles tracked by a laser beam, and taking an image of each vehicle traveling in excess of a predetermined speed threshold.		
155.	The system shall have the capability to be powered by a vehicle's 12 volt power system.		
156.	The system shall allow for a minimum speed threshold at which a violation will be detected and photographed. Threshold setting shall be in increments of 1 km/h.		
157.	The system shall be capable of operation during all seasons and shall record violations during times when ambient light is sufficient to capture images. The image shall incorporate the following views: a) View of the rear of the vehicle; b) Characters and numbers on reflectorized and non-reflectorized license plates; and c) Superimposed Data Information.		
158.	The camera must record the visual image at a suitable distance from the enforcement vehicle. The Image shall contain all objects within the area of the camera's view, including; a) The vehicle, if present, positioned on the roadway; and b) The vehicle's rear license plate displaying the alphanumeric characters unique to each license plate. The Image must be able to be printed to sufficient resolution such that all the above elements are clearly identifiable.		
159.	The system shall be fully suitable and functional for use under all weather conditions and must have been tested to a minimal temperature of -30° C.		
160.	The system shall be easy to set up, as well as service and maintain on a daily basis.		
161.	The system shall be constructed in a component configuration so that each component is separate from the other. At a minimum the component units must include the following: a) Laser Device with integrated high resolution camera; b) Tablet Computer or equivalent; c) Vehicle Mounting Hardware.		

162.	The system is CSA certified or equivalent. (Please submit documentation if applicable)		
163.	The Contractor shall take all reasonable steps to obtain CSA certification or equivalent for all products being used under this Contract.		
<b>THE LASER DEVICE WITH INTEGRATED HIGH RESOLUTION CAMERA</b>			
164.	The Laser Device with integrated high resolution camera shall be constructed as a single ruggedized component.		
165.	The Laser Device with integrated high resolution camera shall have, at a minimum, individual buttons used for the following specific functions: a) On/Off; b) Direction; c) Mode; Speed/Range; d) Display Intensity; and e) Self-Test; f) Menu Edit.		
166.	The Laser Device with integrated high resolution camera shall have a LCD, or equivalent, window in which the speed and distance of each targeted vehicle is displayed.		
167.	The Laser Device with integrated high resolution camera shall allow for direction setting by the use of easily accessed, adjustable, system. Directions setting must allow for the following options: a) Approaching traffic; b) Receding traffic; and c) Simultaneous detection of both approaching and receding traffic.		
168.	The Laser Device with integrated high resolution camera shall allow for speed threshold settings at which a violation will be detected and photographed. Threshold setting shall be in increments of 1 km/h.		
169.	The laser device with integrated high resolution camera must allow for Digital Signal Processing of reflected laser beam.		
170.	Laser device with integrated high resolution camera shall have the ability to perform the following tests; a) A scope alignment test b) Fixed distance, zero velocity test c) Self-test or Internal Diagnostic test		
171.	In the event that a test sequence is not properly completed, the laser device with integrated high resolution camera, will not be able to proceed to the enforcement stage. A series of error messages must be displayed to inform the operator of the problem with the unit.		
172.	The control unit shall have a LCD, or equivalent, indicator displaying the battery power level.		
173.	When powered by the vehicle's 12 v system the laser device with integrated high resolution camera shall be fused to prevent any damage to the electronic components and sub system in the event of any power surge and/or cross wiring		
174.	The laser device with integrated high resolution camera shall provide high-resolution images of the vehicle making the violation. The images shall be recorded on a digital memory medium. (ie. hard drive, flash stick or card) for the digital system.		
175.	The operation of the laser device with integrated high resolution camera shall be microprocessor controlled and fully automatic.		
176.	The laser device with integrated high resolution camera shall use a one-time use digital image memory hard drive, flash stick or card for the digital system and: a) Maximum megapixels available for high resolution images (bidder to provide details); b) Save images in a JPEG or TIF format; and c) Sufficient memory to record no less than 400 violations per memory medium. (400 images).		

177.	Laser device with integrated high resolution camera saves colour images.		
178.	The laser device with integrated high resolution camera shall provide for placement of filters in front of the camera lens to facilitate a clear image capture through automotive glass.		
179.	The laser device with integrated high resolution camera shall record data information pertinent to each violation in a clear, concise fashion that will not interfere, in any manner, with the photo image.		
180.	The data must be superimposed onto the image simultaneously with the exposure of the violation image. Systems that print or append the data to the image after the violation has occurred are <u>not</u> acceptable.		
181.	All software needed to control the laser device with integrated high resolution camera and calculate the speed and distance of a vehicle in the beam must be incorporated into the laser device with integrated high resolution camera. All software must reside in the firmware (e-prom) of the control unit. DSP software cannot be downloadable to the laser device with integrated high resolution camera.		
182.	The data box shall contain the following data information for each violation sequence: a) Date (MM/DD/YY) or (DD/MM/YY); b) Time (24-hour clock); c) Direction of travel (approaching or receding); d) Total Violation Speed; e) Violation Number or image sequence number; f) Officers I.D. Number; and g) Location Code.		
183.	The camera lens shall be of a fixed focus design.		
<b>THE TABLET OR EQUIVALENT</b>			
184.	The Tablet or equivalent shall be rugged in construction and capable of being used outdoors in all seasons and weather conditions.		
185.	The Tablet or equivalent shall have, at a minimum, a) 1.6 Ghz processor b) 2 GB DDR2 Ram c) 50 GB solid state hard drive d) 7" 1024x600 resolution TFT LCD or equivalent display that is readable in sunlight e) Be powered by a swappable Lithium Ion battery, capable of extended use f) be compatible with the laser device with integrated high resolution camera		
186.	The software contained within the tablet, or equivalent, shall be capable of integrating with the laser device with integrated high resolution camera.		
187.	The information recorded on the tablet, or equivalent, shall be easily downloadable to a PC compatible computer in a Microsoft compatible format for statistical evaluation and violation processing.		
188.	The tablet, or equivalent, shall have the ability to display an image of the violating vehicle allowing the operator to view information in accordance with Item 182.		
189.	The tablet, or equivalent, shall allow the operator to make alpha numeric changes. Data entry shall be prompted via a menu with unique individual operator password protection.		

**OFFENCE PROCESSING REQUIREMENTS**

190.	<p>The Contractor shall maintain and operate a Permanent Offence Processing Centre in Winnipeg, Manitoba. The Offence Processing Centre shall:</p> <ul style="list-style-type: none"> <li>a) Be located on a Winnipeg Transit route;</li> <li>b) Have sufficient parking, with electrical plug-ins, available for all Photo Radar/Laser operators, including during shift overlap hours, as well as for five (5) Winnipeg Police Service personnel;</li> <li>c) Have semi-enclosed work stations or offices with computers, supplies and furnishings for five (5) Winnipeg Police Service personnel, with the ability to expand;</li> <li>d) In addition to c) above, have, at a minimum, one (1) fully enclosed office which can be locked and secured, for the Contract Administrator. The office to include computer, printer, fax machine, supplies and furnishings;</li> <li>e) Have sufficient work stations with computer, supplies and furnishings for Photo Radar/Laser operators' verification of offence notice duties. One of these stations will also be utilized as the Photo Radar/Laser supervisor's area;</li> <li>f) Have a meeting/training room with furnishings suitable to accommodate at least ten persons at a time;</li> <li>g) Have a lunchroom/breakroom area complete with, at a minimum, a microwave oven, refrigerator, kitchen sink, tables, chairs and appropriate washroom facilities.</li> <li>h) Have suitable locker storage for two (2) Winnipeg Police Service personnel (full size lockers or equal) and for all Photo Radar/Laser operators (half size lockers);</li> <li>i) Have suitable space to accommodate the Photo Radar/Laser operators prior to, during and after prescribed shifts, (ie. shift overlap periods, after-hours access to washrooms, break/lunchroom and secured cabinets for evidence storage purposes etc.)</li> </ul> <p>*Bidders shall include, with their proposal submission, a list of locations(s) and floor plan(s) of the proposed building/office space. In addition the proposal shall also include the manpower requirements of the Contractor for all processing as well as equipment maintenance and testing as required.</p>		
191.	Hours of operation required of the processing Centre shall be a minimum of 8:30 a.m. till 4:30 p.m. on Business Days.		
192.	The Contractor shall provide a Program Manager who will be the over-all supervisor for the Offence Processing Centre during regular business hours or as approved by the Contract Administrator.		

<b>GENERAL REQUIREMENTS</b>		
193.	<p>The Contractor shall process Offence Notices in accordance with the applicable legislation by:</p> <ol style="list-style-type: none"> <li>a) Processing data and images of offences;</li> <li>b) Obtaining vehicle registered owner information;</li> <li>c) Preparing Offence Notices;</li> <li>d) Filing Offence Notices with The Winnipeg Police Service and the Courts;</li> <li>e) Sending Offence Notices; and</li> <li>f) Providing evidence required by the Courts. Must be in machine readable format.</li> </ol> <p>The applicable legislation links are:</p> <ul style="list-style-type: none"> <li>• The Highway Traffic Act (Manitoba) <a href="http://web2.gov.mb.ca/laws/statutes/ccsm/h060e.php">http://web2.gov.mb.ca/laws/statutes/ccsm/h060e.php</a></li> <li>• The Related Image Capturing Enforcement Regulations <a href="http://web2.gov.mb.ca/laws/regs/pdf/h060-220.02.pdf">http://web2.gov.mb.ca/laws/regs/pdf/h060-220.02.pdf</a></li> <li>• The Summary Convictions Act (Manitoba) <a href="http://web2.gov.mb.ca/laws/statutes/ccsm/s230e.php">http://web2.gov.mb.ca/laws/statutes/ccsm/s230e.php</a></li> <li>• The Manitoba Public Insurance Corporation Act <a href="http://web2.gov.mb.ca/laws/statutes/ccsm/p215e.php">http://web2.gov.mb.ca/laws/statutes/ccsm/p215e.php</a></li> </ul>	
194.	<p>The Contractor shall process all collected data from the Intersection Safety Camera and Photo Radar/Laser Systems, whether related to an offence or not, for analysis and management purposes. The Contractor shall be required to retain the original captured images on the original medium, for evidentiary purposes for a minimum of seven (7) years and cannot be disposed without the prior approval of the Contract Administrator.</p>	
195.	<p>The Contractor shall provide an Offence Processing System and procedures which shall:</p> <ol style="list-style-type: none"> <li>a) Process and record all Images related to offences and all collected data, whether related to an offence or not;</li> <li>b) Ensure that Offence Notices are produced when and only when the data, the images and the circumstances meet all specified requirements;</li> <li>c) Obtain vehicle registered owner information electronically;</li> <li>d) Prepare Offence Notices electronically;</li> <li>e) File Offence Notices with The Winnipeg Police Service and the Courts electronically;</li> <li>f) Send hard copy Offence Notices by mail and document for each Offence Notice:             <ol style="list-style-type: none"> <li>I. when it was created;</li> <li>II. when it was filed with The Winnipeg Police Service and the Courts</li> <li>III. when and where it was mailed and who performed the task; and</li> </ol> </li> <li>g) Generate Court Packages as specified in Items 213 and 216;</li> <li>h) Interface with The Winnipeg Police Service and Courts as identified in Items 210, 211 and 212;</li> <li>i) Manage all images and collected data, and information regarding offence processing;</li> <li>j) Generate management and statistical reports; and</li> <li>k) Information must be made available via the Contractor's data base or thru a depository. The Contractor shall not be permitted direct access to Manitoba Justice System.</li> </ol>	

196.	The Contractor shall supply The Winnipeg Police Service with operational policies and procedure manuals that will be followed by personnel for the Intersection Safety Camera, Photo Radar/Laser, and Offence Processing Systems. The Winnipeg Police Service and Courts must approve policies and procedure manuals prior to the implementation of the Intersection Safety Camera and Photo Radar/Laser Systems		
<b>METRIC UNITS</b>			
197.	The Offence Processing System shall use the metric system when indicating measurements, e.g., Speed and distance.		
<b>PROCESSING CENTRE</b>			
198.	The Contractor shall operate a permanent offence processing centre as per Item 190, located within the City of Winnipeg and shall be fully operational within one hundred (100) Calendar Days of award of Contract.		
199.	The Contractor shall, within thirty (30) Calendar Days of award of Contract, prior to the establishment of a permanent processing center in Winnipeg, be able to process and issue summonses for all listed offences in accordance with item 193. During the period of time that the remote offence processing centre is utilized, prior to the establishment of the permanent offence processing centre, secure indoor heated parking for the Photo Radar vehicles will be required with suitable parking facilities for the photo radar operators.		
200.	The Contractor shall provide a heated, indoor, secure parking facility within or adjacent to the permanent offence processing centre for all Photo Radar/Laser vehicles and one (1) Winnipeg Police Service (WPS) vehicle.		
<b>OFFENCE PROCESSING – GENERAL</b>			
201.	The Contractor shall process the digital medium and all collected data related to each offence, whether related to an offence or not.		
202.	<p>The Contractor shall send an Offence Notice for an Intersection Safety Camera offence for red light Violation when and only when:</p> <ul style="list-style-type: none"> <li>a) Both of the two (2) images of the offence clearly display; <ul style="list-style-type: none"> <li>I. the rear of the offending vehicle;</li> <li>II. at least one traffic control signal displaying the red light being disobeyed;</li> <li>III. a legible data section showing all required data.</li> </ul> </li> <li>b) At least one of the two (2) images of the offence clearly displays; <ul style="list-style-type: none"> <li>I. a legible license plate;</li> <li>II. a legible data section showing all required data (the vehicle speed may be only on one image and the location code may be only on one image)</li> </ul> </li> <li>c) The Intersection Safety Camera System passed all aspects of the last test before and the first test after the offence;</li> <li>d) It has been verified that no specified exemptions apply; and</li> <li>e) It has been issued by, and bears the signature of, the authorized Special Constable.</li> </ul>		

203.	<p>The Contractor shall send an Offence Notice for an Intersection Safety Camera offence for a Speeding Violation when and only when:</p> <ol style="list-style-type: none"> <li>a) Both of the two (2) images of the offence clearly display;             <ol style="list-style-type: none"> <li>I. the rear of the offending vehicle;</li> <li>II. at least one traffic control signal is displayed showing the light phase; and</li> <li>III. a legible data section showing all required data.</li> </ol> </li> <li>b) At least one of the two (2) images of the offence clearly displays             <ol style="list-style-type: none"> <li>I. a legible license plate;</li> <li>II. a legible data section showing all required data (the vehicle speed may be only on one image and the location code may be only on one image);</li> </ol> </li> <li>c) the Intersection Safety Camera System passed all aspects of the last test before and the first test after the offence;</li> <li>d) it has been verified that no specified exemptions apply; and</li> <li>e) It has been issued by, and bears the signature of, the authorized Special Constable.</li> </ol>		
204.	<p>The Contractor shall send an Offence Notice for a Photo Radar/Laser offence when and only when:</p> <ol style="list-style-type: none"> <li>a) The images of the offence clearly display:             <ol style="list-style-type: none"> <li>I. the rear of the offending vehicle;</li> <li>II. legible data section showing all required data; and</li> <li>III. a legible license plate.</li> </ol> </li> <li>b) it has been verified that no specified exemptions apply; and</li> <li>c) It has been issued by, and bears the signature of, the authorized Special Constable.</li> </ol>		
<b>VEHICLE REGISTERED OWNER INFORMATION</b>			
205.	<p>The Contractor shall obtain vehicle registered owner information electronically from Manitoba Public Insurance (MPI). The Contractor shall bear any costs incurred to access information. The Contractor shall be responsible to satisfy MPI that the requirements respecting Disclosure of Motor Vehicle Registration Information can be met and all proper safety encryption for information exchange over the Internet can be complied with.</p> <p>The transport or transmission of any personal information across international boundaries is strictly prohibited.</p>		
<b>OFFENCE NOTICE</b>			
206.	<p>The Offence Notice shall:</p> <ol style="list-style-type: none"> <li>a) Be printed on the form approved by the Province of Manitoba;</li> <li>b) Be filed with The Winnipeg Police Service and the Courts electronically prior to issuance to the registered owner of the vehicle; and</li> <li>c) Be sent to the registered owner of the vehicle as Standard Letter Mail with Canada Post, post marked within fourteen (14) Calendar days of the offence.</li> </ol>		
207.	<p>The Contractor shall not include any attachments or enclosures with the mailed Offence Notice without the prior approval of the Contract Administrator.</p>		
<b>THE WINNIPEG POLICE SERVICE AND COURTS INTERFACE</b>			
208.	<p>The Offence Processing System will be in electronic format with the Winnipeg Police Service and the Courts. Appropriate systems will be created by the Contractor for communication between the Police, Courts and the Contractor. Software applications will be reviewed and approved by the information management representatives of the Winnipeg Police Service and the Courts.</p>		

209.	<p>The Offence Processing Police and Courts Interface shall;</p> <ul style="list-style-type: none"> <li>a) Be capable of communicating between the Contractor, the Police and the Courts to electronically exchange information;</li> <li>b) Comply with desktop standards of the Provincial Courts and the Police if they are placed within those offices;</li> <li>c) Allow the Provincial Courts to amend and print files applicable to the Court process; and</li> <li>d) Allow the Police to view all information regarding their jurisdictional files and print information and reports as required.</li> </ul>		
210.	<p>The Contractor shall provide, depending upon options available for interfacing with the Provincial Courts;</p> <ul style="list-style-type: none"> <li>a) Two (2) stand-alone Personal Computers (PCs) and one (1) printer in the Winnipeg Court</li> <li>b) An approved equal or alternative</li> </ul> <p>The Bidder shall provide an itemized list of the equipment proposed.</p>		
211.	<p>The software used for the Offence Processing System should be developed and have been in use for a minimum of three (3) years. The Bidder shall provide references.</p>		
212.	<p>The Bidder shall provide details of software and where it is currently in use.</p>		
<b>EVIDENCE – GENERAL</b>			
213.	<p>The Contractor shall provide evidence if any charge with respect to a red light or speeding offence is laid where an Intersection Safety Camera or Photo Radar/Laser Unit image is involved.</p>		
<b>COURT PACKAGE</b>			
214.	<p>If notified that a trial has been set by the Court regarding an offence captured on an Intersection Safety Camera, the Contractor shall create a Court package consisting of:</p> <ul style="list-style-type: none"> <li>a) Two (2) copies of the information;</li> <li>b) Three (3) sets of colour photographs (on the Loops, in the intersection and plate close-up);</li> <li>c) One (1) original Special Constable schedule (Schedule D or E, depending on the offence) and two copies;</li> <li>d) Three (3) copies of the testing certificate from the ISC System Technician;</li> <li>e) Three (3) copies of the testing certificate from the ISC Field Technician;</li> <li>f) Three (3) copies of the testing certificate from the ISC Loop Installer; and</li> <li>g) One (1) original MPI Registered Owner Certificate and two (2) copies.</li> </ul>		
215.	<p>If notified that a trial has been set by the Court regarding an offence captured by a Photo Radar/Laser Unit, the Contractor shall create a Court package consisting of:</p> <ul style="list-style-type: none"> <li>a) Two (2) copies of the information;</li> <li>b) Three (3) sets of colour photographs (Image and plate close-up);</li> <li>c) One (1) original Special Constable Schedule F and two (2) copies;</li> <li>d) Three (3) copies of the testing certificate from the designated radar tester, in accordance with Item 229;</li> <li>e) One (1) original MPI Registered Owner Certificate and two (2) copies; and</li> <li>f) Two (2) copies of original notes from the Photo Radar/Laser operator.</li> </ul>		
216.	<p>The Contractor shall deliver the Court package to the designated Court office a minimum of sixty (60) days prior to the scheduled court date to allow for proper disclosure of the evidence to the accused by Manitoba Justice.</p>		

<b>EXPERT WITNESSES</b>		
217.	The Contractor shall, upon request of the Contract Administrator, provide the services of expert witnesses to; a) Provide evidence regarding the technical functions of the Intersection Safety Camera and Photo Radar/Laser Systems and their components, and their accuracy and reliability; b) Consult with Department of Justice employees; c) As required, provide resumes of each proposed expert witness, describing the individuals experience testifying as an expert witness for Photo Enforcement Programs.	
<b>STORAGE AND CARE</b>		
218.	The Contractor shall; a) Maintain a proper documented chain of evidence in accordance with Canadian Law and the policy of The Winnipeg Police Service; b) Maintain all evidence files and images for a period of no less than seven (7) years; and c) Maintain files where no actions are taken until receiving approval from the Contract Administrator to delete.	
<b>INFORMATION MANAGEMENT – GENERAL</b>		
219.	The Contractor shall store and maintain all information and images for a period of no less than seven (7) years.	
220.	Information and images shall not be deleted without the prior approval of the Contract Administrator.	
<b>DATABASE</b>		
221.	The Contractor shall maintain an electronic database with all of the data and images collected from each Intersection Safety Camera and Photo Radar/Laser Unit offence.	
222.	The database at a minimum shall; a) Maintain files and images for a period of no less than seven (7) years b) Store all of the following data so it can be used as a management and statistical tool; I. all data captured by the Intersection Safety Camera and Photo Radar/Laser Unit; II. all registered vehicle owner information; III. any other information required to prepare the Offence Notice; IV. all images captured by the Intersection Safety Camera and Photo Radar/Laser Unit. c) Back up all data stored in the database at a secure second location, within Winnipeg, approved by the Contract Administrator. *The Bidder shall describe the proposed method of backup, the proposed backup location and the proposed security measures.	
<b>TRACKING AND REPORTS</b>		
223.	The Contractor shall use a computerized system for tracking and reporting all relevant information recorded by the Intersection Safety Camera and Photo Radar/Laser Unit System and generated as a result of offence processing	

224.	<p>The system at a minimum will be capable of;</p> <ul style="list-style-type: none"> <li>a) Generating monthly, quarterly, and annual reports for the first year of operations. Reports must be generated no later than ten (10) Business Days following the end of the month. The reports generated must include at a minimum the following; <ul style="list-style-type: none"> <li>I. number of offences recorded;</li> <li>II. number of offences where Offence Notices were not prepared;</li> <li>III. breakdown for reasons for non-issuance;</li> <li>IV. Offence Notices prepared and mailed;</li> <li>V. Court hearing scheduled and held;</li> <li>VI. Disposition of Court hearings;</li> <li>VII. Camera equipment hours of service, hours out of service;</li> <li>VIII. Number and description of camera or other equipment malfunctions; and</li> <li>IX. Average number of days elapsed between date of offence and date that Offence Notice was mailed to the registered owner.</li> </ul> </li> <li>b) Generating a monthly traffic volume and speed report of all available data for all traffic movement;</li> <li>c) Generating Statistical/Managerial reports accessible on a 24 hour/7 day basis containing detailed Offence Notice information for Offences issued at intersection cameras and by photo radar/laser mobile operators. Information to be provided in a Microsoft compatible format and must include: <ul style="list-style-type: none"> <li>I. Offence Notice number;</li> <li>II. Date, time and location of Offence;</li> <li>III. Offence – including number of kilometres over speed limit;</li> <li>IV. Type of Offence – including number of kilometres over speed limited (if applicable);</li> </ul> </li> <li>d) Generating Statistical/Managerial reports accessible on a 24 hour/7 day basis containing summary total of individual Offence Notice transactions including: <ul style="list-style-type: none"> <li>I. Number issued by specific day;</li> <li>II. Number issued by specific month;</li> <li>III. Number issued by intersection location/day/month/YTD and previous YTD;</li> <li>IV. Number issued by photo radar/laser operator identification number/day/month/YTD and previous YTD;</li> <li>V. Number issued by kilometers over speed limit.</li> </ul> </li> <li>e) Generating Statistical/Managerial reports, from a secured remote City of Winnipeg location/office, accessible on a 24 hour/7 day basis containing: <ul style="list-style-type: none"> <li>I. a database for the purpose of monitoring the status (paid or outstanding) of Offence Notices that have been issued and associated accounts receivable balances;</li> <li>II. supply management reports in a Microsoft Office compatible format based on information provided above in this section of the Detailed Specifications, on an ad hoc basis which is accessible by persons named by the Contract Administrator.</li> </ul> </li> <li>f) Reports will be provided to the City in a format approved by the Contract Administrator.</li> <li>g) Photo radar/laser operator identification number.</li> </ul>		
<b>INTERSECTION SAFETY CAMERA FIELD TECHNICIANS</b>			
225.	The Contractor shall provide Intersection Safety Camera Field Technicians meeting, as a minimum, the requirements specified in Item 228 of these Detailed Specifications.		
226.	There shall be a minimum of one (1) Field Technician per twenty (20) cameras.		

<b>INTERSECTION SAFETY CAMERA SYSTEM TECHNICIAN</b>		
227.	The Contractor shall provide a minimum of one (1) Intersection Safety Camera System Technician and a Loop Installer Technician, meeting, as a minimum, the requirements specified in Item 228 of these Detailed Specifications.	
<b>MINIMUM PERSONNEL AND TECHNICIAN REQUIREMENTS</b>		
228.	The Intersection Safety Camera System Technician, the ISC Field Technicians and the ISC Loop Installers shall: a) Be appointed by the Minister of Highways – The Highway Traffic Act Section 257.3(1); b) Be authorized to complete a certificate as outlined under The Highway Traffic Act Section 257.3(2); c) Have completed formal training and on-the-job training with the Contractor's equipment; d) Be employed and certified by the Contractor or a Subcontractor; and e) Testify in Court when required	
<b>TESTER APPOINTMENTS</b>		
229.	Section 257.1 of The Highway Traffic Act provides for appointment of testers by the Minister of Transportation. The ISC System Technician, ISC Field Technicians, and ISC Loop Installers shall be the designated testers. These testers shall be employees of the Contractor or a Subcontractor. A tester shall provide evidence, both verbally and by certificate, for court purposes as to the accuracy and proper functioning of the Intersection Safety Camera.	
230.	The Contractor shall provide Manitoba Justice with a list of trained service personnel from which Manitoba Justice may designate such persons as qualified testers.	
<b>ORIENTATION</b>		
231.	At the request of the Contract Administrator, the Contractor shall provide an in-depth program overview.	
<b>TRAINING</b>		
232.	The Contractor shall, at his expense, provide training for six (6) to a maximum of fifteen (15) Winnipeg Police Service personnel in all aspects of the proposed Photo Enforcement System over the duration of the Contract.	
<b>PUBLIC EDUCATION REQUIREMENTS</b>		
233.	The Photo Enforcement Program includes a public education/awareness program to be funded by the Contractor. The program funds shall be \$200,000.00 per year over the duration of the Contract. The Contractor shall designate and maintain this fund. The City of Winnipeg shall have full authority on the disbursement of the funds. The Contractor, in conjunction with the City, shall assist in developing the public awareness education program ideas.	

**PHOTO RADAR/LASER OPERATORS**

234.	<p>The Contractor shall provide the following:</p> <ul style="list-style-type: none"><li>a) Staff ten (10) mobile radar/laser vehicles for two (2) – eight (8) hour shifts over a fourteen (14) day enforcement period. Shifts are from 07:00 hours to 15:00 hours, and 14:00 hours to 22:00 hours, seven days a week, everyday;</li><li>b) Designate one of the operators as a street supervisor for each shift;</li><li>c) Provide an over-all supervisor in the processing facility during regular business hours or as approved by the Contract Administrator;</li><li>d) Train, at his expense, all photo radar/laser operators in Photo Radar/Laser operations, consisting of:<ul style="list-style-type: none"><li>I. Basic Doppler Radar, Laser training; and</li><li>II. Practical and theoretical training of the Contractor's proposed Photo Radar/Laser products;</li></ul></li><li>e) Ensure that all training is to the satisfaction and requirements of the Manitoba Departments of Justice, Infrastructure and Transportation, and the Contract Administrator for the duration of the Contract;</li><li>f) The WPS will provide oversight and required standards for the trainer. The Contractor will provide “train the Trainer” instruction for the Basic Doppler Radar, Laser Training.</li><li>g) Ensure that all photo radar/laser operators are trained to satisfy the requirements of the Manitoba Department of Infrastructure and Transportation to be designated testers for the Photo Radar/Laser equipment;</li><li>h) Ensure that all photo radar/laser operators are able to meet the requirements for appointment as Special Constables within the Province of Manitoba through the Manitoba Department of Justice prior to performing any Work under this Contract; and</li><li>i) Liaise with Department of Justice and maintain a court attendance schedule for all photo radar/laser operator court appearances.</li></ul> <p><b>Note:</b> Bidders are advised that there could be a significant amount of over-time costs associated with photo radar/laser operators being required to attend Court on personal time.</p>		
------	--	--	--

<b>PHOTO RADAR/LASER OPERATOR MANDATORY REQUIREMENTS</b>		
235.	<p>Photo radar/laser operators shall:</p> <ul style="list-style-type: none"> <li>a) Be a minimum of 18 years of age;</li> <li>b) Be sworn in as a Special Constable within the Province of Manitoba;</li> <li>c) Have proof of successful completion of non-enforcement training in Photo Radar/Laser;</li> <li>d) Be in possession of a valid Manitoba Class 5.0 Driver's License with no more than four (4) demerits on a Driver's abstract as assessed by the Winnipeg Police Service. Quarterly inspection, by the Winnipeg Police Service of driver's license status will be mandatory for all operators;</li> <li>e) Be able to work in a supervised and/or unsupervised environment at predetermined enforcement locations throughout the City;</li> <li>f) Be able to work days, evenings and weekend shifts including Statutory and Civic Holidays;</li> <li>g) Be able to attend Court and testify, if required, on days off.</li> </ul> <p>The Contractor shall ensure the photo radar/laser operators shall:</p> <ul style="list-style-type: none"> <li>h) Perform general daily maintenance of Photo Radar/Laser Vehicles and Photo Radar/Laser Equipment;</li> <li>i) Report any vehicle and equipment malfunctions to supervisor to arrange for immediate repair or replacement;</li> <li>j) Field test the Photo Radar/Laser product, as trained, at set-up and breakdown at all enforcement locations;</li> <li>k) Maintain documented chain of evidence of media and data cards utilized during shift;</li> <li>l) Maintain a written log during enforcement duties of vehicle description of violators for evidence purposes;</li> <li>m) Verify and sign all Offence Notices issued on violations submitted for processing;</li> <li>n) Testify in court, when required, for the prosecution of offences.</li> </ul>	
<b>PHOTO RADAR/LASER OPERATOR DRESS AND DEPARTMENT</b>		
236.	<p>All photo radar/laser operators under this Contract shall be fully and properly uniformed in a professional manner while on duty and also when requested to attend court.</p>	
<b>PHOTO RADAR/LASER OPERATORS SUPERVISION AND AUTHORITY</b>		
237.	<p>Photo radar/laser operators will be under the sole direction of the Winnipeg Police Service Contract Administrator or designate with respect to all assignment of enforcement locations and times.</p> <p>All errors, discrepancies and questionable evidence must be directed to the attention of the Winnipeg Police Service Contract Administrator or designate.</p>	

**FORM S: SEPARATE PRICES**  
**SUPPLY, INSTALLATION AND OPERATION OF A PHOTO ENFORCEMENT PROGRAM**

These separate prices are for the information of the City. This pricing may be used as the basis for pricing of any additional locations over and above fifty (50) Intersection Safety Camera locations and thirty-three (33) Intersection Safety Cameras which are included in the pricing on Form B: Prices.

Item No.	Description	Unit	Unit Price
1.	Intersection Safety Camera Location	Each	
2.	Relocation of an existing Intersection Safety Camera (Take down and install in a new location)	Each	

State any applicable discounts for multiple quantities  
(acquired at the same time) for items 1 and 2 above

\_\_\_\_\_

Note: Separate Prices are based on a standard intersection with 4 (four) corners and two lanes of traffic in each direction