RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Title - Sujet
LIFE SIGN MONITORING SYSTEM

Solicitation No. - N° de l'invitation	Amendment No. - N° modif.
21120-124209/A	002
Client Reference No. - N° de référence du client	**Date**
21120-124209	2012-06-14

GETS Reference No. - N° de référence de SEAG
PW-$$HN-323-60441

File No. - N° de dossier	CCC No./N° CCC - FMS No./N° VME
hn323.21120-124209	

Solicitation Closes - L'invitation prend fin
at - à 02:00 PM
on - le 2012-06-22

Time Zone
Fuseau horaire
Eastern Standard Time EST

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☑ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à:	Buyer Id - Id de l'acheteur
Dubeau, Stéphane	hn323
Telephone No. - N° de téléphone	**FAX No. - N° de FAX**
(819) 956-1533 ( )	(819) 953-4944

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
Correctionnal Service of Canada
Joyceville Institution
P.O. Box 880
Kingston, Ontario
K7L 4X9

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)
Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature **Date**

Issuing Office - Bureau de distribution
Electrical & Electronics Products Division
11 Laurier St./11, rue Laurier
6B1, Place du Portage, Phase III
Gatineau, Québec K1A 0S5

Canada

The purpose of this amendment is 1) to publish the minutes of the meeting dated 1 June 2012; 2) to change STR LSMS Revision 3 dated 7 may 2012; 3) to change ES/SPEC-507 Revision 2, 7 may 2012, 4) to change Annex A - pricing sheet and 5) to publish the attendance sheet of the mandatory site visit as follows:

1) Goal of the visit:

5. Mandatory Site Visit

It is mandatory that the Bidder or a representative of the Bidder visit the work site. Arrangements have been made for site visit as per indicated below. Interested Bidders must meet at the Principal Entrance.
Bidders will be required to sign an attendance form at the site visit. Bidders should confirm in their bids that they have attended the site visit. Bidders who do not attend or send a representative to the site visit will not be given an alternative appointment and their bids will be rejected as non-compliant. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation. The onus is on the Bidders to arrive at the site visit in a timely manner. Bidders arriving late may not be permitted to attend the site visit. The Bidder must have at least one attendee at the site visit.

Where: Joyceville Institution, Kingston, Ontario

When: Friday June 1st 2012

Attendances:

Daniel Smith National Headquarters Project Leader - CSC
Tom Burns Regional Electronics Program Officer - CSC
Sylvio Bisson Project Officer - CSC HC
Stephane Dubeau Supply Specialist - HN Division Direction
Marc Andre Bergeron representing Marcomm Fibre Optics Inc.
Christopher Richard Corbeil representing Falcon Alarm Security System

The Actual visit started at 1:15PM June 1 2012

-Stephane started by explaining us the process:

- Visit period and contract review and question period at the end of the visit.
- Questions to be noted and asked during the contract review and question period
- To ensure all questions are formally answered, bidders are responsible to sent them to Stephane Dubeau via email

-Visit Period:

- Daniel and institution's escort guided us to the area targeted for the installation of the LSMS.
- We showed them the two observation rooms (117 & 118), Unit Control Post (124), and the Telecom Equipment room (127)

-Contract review and question period

- Daniel quickly when over the contract part of the RFP and reminded them on some of the key dates:
  - Any questions asked during this meeting or new one that may come up after this site visit have to be sent to Stephane Dubeau via email by June 12 2012 at the latest
  - Bidder have until June 22nd to submit their proposal to Stephane Dubeau via email.
- Sylvio quickly when over the technical part of the RFP (STR LSMS and the ES/SPEC-0507). (note that questions that need to be formally answered have to be sent to Stephane Dubeau via email)

  A few points where discussed and a few questions came up:
  - Dan Smith pointed out that the contact info on section 5.9.3 should be changed to him
    Action is with Sylvio to update STR
    Status closed: STR R4 contain updated contact information
  - Discussed how and where wiring/installation could be done. No follow up required.
  - Discussion around the need to install a new cabinet as specified or to use the existing cabinet present in the Telecommunication Room. Please note that 12RU of space is available in the current rack and if the proposed system could fit within that space then preference would be to use that cabinet. No follow up required.
  - Discuss the need to use RFID, since Joyceville is not using any RFID in its institution.
    Action is with Sylvio to update Specification to remove need for RFID.
    Status closed: SP0507 Revision3 has been updated
  - Discussion around the type of monitor to be used came up since room is very limited in the control post, Marcomm recommended the use of a swivel mount 17" touch sensitive monitor to be installed in the control post. No follow up required.
  - As per paragraph 3.7.5.2 Marcomm asked if new UPS was needed or not.
    Two items come in to play to answer this one. 1) System power requirement; up time after power failure, 2) would the system be able to recover automatically after power recovery; 99.99% System availability or no more than 87hours of down time per year. So contractor is responsible to do MTBF and system availability calculations and to include within their proposal/recommendation. No follow up required.
  - Marcomm pointed out a potential issue around the current institution operation procedure and recommended operation procedure with LSMS. Current defined process in Joyceville demand that a cell be always be kept locked (occupied or not). The LSMS would be using cell lock status to determine if cell is occupied or not and therefore automatically monitoring for Life Sign. So LSMS relies on the lock or unlock status of the observation cell to determine its occupancy.
    Action is with Sylvio to review and update LSMS specification if needed.
    Status closed: SP0507 Revision3 has been updated

- Question around the hours available for bidders to do their installation and test of the LSMS at the Joyceville institution. Daniel told us that Chief - Plant Maintenance Don Graves is the person which will be able to answer this question.
  Action is with Sylvio to asked question and update STR.
  Status closed: Answer to this question is contained in section 5.7 of the STR document. So it is preferable for institution that contractor execute his work in evening or night shift.
- Question around how to answer STR Section 4.5.1: " LSMS need to have capability to integrate with existing data logger and Facility Annunciation Alarm System".
  Action is with Stephane to define.
  Status closed: Stephane added section 8 within Annex "A" to clarify the process on how to answer this requirement.

2) to change STR LSMS section:

Delete:	STR LSMS Revision 3, 07 may 2012 from solicitation dated 2012-05-10
Insert:	STR LSMS Revision 4, 11 June 2012

3) to change ES/SPEC-507 section:

Delete:	ES/SPEC-507 Revision 2, 7 may 2012 from solicitation 2012-05-10
Insert:	ES/SPEC-507 Revision 3, 11 June 2012

4) to change Annex A - Pricing sheet:

Delete:	Annex A - pricing sheet dated 2012-05-10 from solicitation dated 2012-05-10
Insert:	Annex A - pricing sheet dated June 12, 2012

5) to publish the attendance sheet of the mandatory site visit:

All other terms and conditions remain unchanged

Correctional Service Canada
Technical Services Branch
Electronics Systems

STR LSMS
Revision 4
11 June 2012

Statement of
Technical Requirement

For

Life Sign Monitoring System (LSMS)

At

Joyceville Institution

AUTHORITY

This Statement of Technical Requirement is approved by the Correctional Service Canada for the procurement and installation of a prototype Life Sign Monitoring System at Joyceville Institution.

Prepared by: Sylvio Bisson

Checked by:

Approved by:

Project Officer,
Electronics Systems Research

Director,
Engineering Services

RECORD OF REVISIONS

Revision	Paragraph	Comment
0	N/A	Original issue
1	4.1 .4 removed	Removing reference to a document that doesn't exist.
2	All over the doc.	Updated based from comments received from
3	Minor formatting changes	Stephane Dubeau.
4	-Section 4.3.3 Dedicated cabinet to be installed only if required space is more than 12RU -Section 5.9.1 change contact info to Dan Smith	Addressing questions that came up during the site visit at Joyceville

Table of Contents

ABREVIATIONS

.1 The following abbreviations are used in this specification:

.2	AC	Alternative Current
.3	ATP	Acceptance Test Procedure
.4	CER	Common Equipment Room
.5	COTS	Commercial-Off-The- Shelf
.6	CSA	Canadian Standards Association
.7	CSC	Correctional Service Canada
.8	DA	Design Authority
.9	DES	Director Engineering Services
.10	EIA	Electronic Industries Association
.11	ES/SOW	Electronics Systems/Statement of Work
.12	ES/SPEC	Electronics Systems/Specifications
.13	ES/STD	Electronics Systems/Standard
.14	FAAS	Facility Annunciation Alarm System
.15	GFE	Government Furnished Equipment
.16	IIU	Intensive Intervention Unit
.17	ID	Identification
.18	LSMS	Life Sign Monitoring System
.19	MHz	Megahertz
.20	mW	Milli-watt
.21	MCCP	Main Communications and Control Post
.22	NSRMC	National Security Electronic Maintenance Contractor
.23	PTT	Push-to-Talk
.24	REPO	Regional Electronics Program Officer
.25	RFP	Request for Proposal
.26	RTO	Regional Technical Officer
.27	RTEO	Regional Technical Electronic Officer
.28	SDK	Software Development Kit
.29	SOW	Statement of Work

.30	TCP/IP	Transmission Control Protocol/Internet Protocol
.31	TER	Telecom Equipment Room

DEFINITIONS

.1 The following **d**efinitions are used in this specification:

.1 Design Authority: Director, Engineering Services (DES) ; Correctional Service Canada (CSC) is responsible for all technical aspects of the system design and implementation.

.2 Contract Authority: Public Works and Government Services Canada (PW&GSC) is responsible for all contractual matters associated with the system design and implementation.

.3 Contractor: The Company selected as the successful bidder.

.4 Project Officer: A CSC employee or a contracted person designated by DES to be responsible for the implementation of the project.

.5 Off-the-shelf: Equipment currently on the market with available field reliability data, manuals, engineering drawings and parts price list.

.6 Custom Equipment: Equipment designed and/or manufactured specifically for a specific contract.

1 INTRODUCTION

1.1 GENERAL

.1 Correctional Service of Canada (CSC) wants to reduce the number of deaths of inmate in custody. New technology is becoming available to assist in the identification and notification of the cessation of movement within a cell. Prompt notification can reduce the time of staff to the awareness of a problem and thus to subsequent actions; thereby potentially saving lives.

.2 CSC intends to purchase a Life Sign Monitoring System (LSMS) installed at Joyceville Institution.

.3 Work will have to be accomplished with minimum disruption to the daily operation and security of the institution.

1.2 SCOPE

.1 The Contractor must design, supply, install, and test a Life Sign Monitoring System for Joyceville Institution located 20 kilometres north east of Kingston, Ontario. The Contractor must provide operational and technical training as part of the implementation of the system described in this Statement of Technical Requirements (STR). The Contractor must provide documentation for the operation and maintenance of this LSMS.

1.3 REQUIREMENTS

.1 The purpose of this STR is to define the technical requirements for the LSMS in the institution.

.2 This STR will indicate the extent to which both general and particular CSC specifications are applicable to the implementation of this requirement.

1.4 TECHNICAL ACCEPTABILITY

.1 The CSC operational environment is unique for its diversity of locations, climate exposures and the physical restrictive construction techniques of penal institutions. Maintaining national security, the safety of staff and offenders alike is CSC's commitment to the government and public. Electronic security systems operating in this unique environment must maintain very high standards of dependability and reliability.

.2 The CSC Engineering Services Division has established technical specifications and equipment standards for specific security electronic systems which are based on very specific and restrictive operational performance criteria as detailed in its Electronic Engineering Standard. Technical acceptability of these systems means that the equipment complies with the pertinent CSC specifications and standards.

2 APPLICABLE DOCUMENTS

2.1 APPLICABILITY

.1 The provisions contained in the documents listed in the following paragraphs must apply to all aspects of this requirement, unless these provisions have been exempted or modified by this STR.

2.2 APPLICABLE STANDARDS AND SPECIFICATIONS

.1 The following electronics engineering documents form part of this STR:

.1 ES/SOW-0101 Statement of Work
Procurement and Installation of Electronic Security Systems

.2 ES/SOW-0102 Statement of Work
Quality Control for procurement and installation of Electronic Systems

.3 ES/SOW-0110 Statement of Work
Structured Cable Systems for Electronic Security Installations

.4 ES/SPEC-0006 Electronics Engineering Specification.
Conduit, Space and Power Requirements for Security Systems.

.5 EIA-310 Electronic Industry Association Standard
for Racks, Panels and Associated Equipment

2.3 LANGUAGE

.1 The language at Joyceville Institution is English. All LSMS display and control indicators and information must be in English only. The operator manuals, maintenance manuals and as-built documents must be provided in English only. Documentation must be provided as per Paragraphs 5.1 through 5.4 of this STR.

3 OPERATIONAL CRITERA

3.1 GENERAL

.1 The operational parameters of the installed solution must meet the performance and operational requirements in accordance with the SOW's, Specifications and Standards listed in paragraph 2.2.

3.2 SYSTEM SPECIFICS

.1 Annex C contains a floor plan of Joyceville institution showing the area where the LSMS will be installed. See section 4.2 for more details.

4 TECHNICAL REQUIREMENTS

4.1 CONCEPT OF OPERATION

.1 CSC requests a LSMS to assist in the identification and notification of the cessation of movement within a cell environment. The LSMS must consist of a system used within two observation cells at the Joyceville institution.

.2 The function of the LSMS is to notify through audible and visual alerts when no breathing movement has been detected for a predetermined period of time in an enclosed occupied observation cell environment. The objective of the LSMS is to reduce the time to the awareness of a problem and potentially saving lives.

.3 The LSMS will consist of the following elements:
a) Sensors to detect movement within the observation cell;
b) Magnetic contacts to monitor "open" and "shut" status of the cell;
c) Common Equipments; Computer System and Supporting Network;
d) Server with local key board video and mouse.

4.2 DETECTION SENSORS

.1 Using the floor plans provided as Annex C, the contractor must determine the location of a number of sensors that must create an effective array capable of detecting the inmate breathing movement. Sensors must be installed in such a way as to not be visible accessible by, inmates. This plan must be included as part of the contractor's response.

4.3 COMPUTER SYSTEM AND SUPPORTING NETWORK

.1 The LSMS must include a workstation with all the attendant hardware – both electronic (IC boards, hard drives, internal cabling, etc.) and physical (system housing, equipment rack, connectors, etc.) – required to ensure that the system is capable of effectively receiving, processing, and analysing the data provided by the sensor array. This workstation will be housed in the Telecommunication Equipment Room 127 located in 1st floor of building, JVJ03-1 of Joyceville Institution (see Annex 'C').

.2 The LSMS must include the amount and type of network appliances and cabling sufficient to ensure that the network is able to effectively transmit the data from the sensor array to the workstation without significant lag, packet loss, or corruption of data integrity.

.3 If the LSMS occupy more than 12RU, then the contractor must include a suitable locking equipment cabinets for the computer system and its networking elements in the Telecomunication Equipment Room (TER) at Joyceville Institution. These cabinets must have locking front and rear doors, ventilation fans, and internal power distribution on separate circuits hard wired to the nearest available AC power distribution panel, where the system's circuits will be clearly marked and locked into the on position. Cabinets

must be orientated for front and rear access, all cabling entering cabinets must be in conduit and mechanically protected. Cabinets must be secured to the concrete floor.

4.4 INSTALLATION

.1 The Contractor must provide, install, and test the LSMS. The system must meet or exceed all of the performance and operational requirements contained in the statement of work and specifications listed in Section 2.2.

.2 Care must be taken to ensure that any existing cables and conduits of other systems are not damaged during the installation.

.3 The Contractor must dispose of all of waste materials and packaging off-site in an environmentally friendly way.

4.5 INTEGRATION

.1 Initially the system is expected to operate as a standalone system but the LSMS needs to have the capability to interface with existing data logger and the Facility Annunciation Alarm System.

4.6 EXPANDABILITY

.1 It must be possible to expand the system beyond the originally installed capacity of two cells through the installation of additional hardware. The system expandability must not be limited in this regard.

5 ADDITIONAL REQUIREMENTS

5.1 OPERATOR TRAINING

.1 The contractor must prepare and present a training course to individuals responsible to train staff for the operation of the system in accordance with the specification ES/SOW-0101 Statement of Work. The course must concentrate on the features and proper operation of the installed system.

.2 The course must be presented on the site within two weeks of the successful acceptance testing of the system. The course must consist of two, three-hour sessions for basic users and one full day session for advanced users. Each session must be presented in English to a group of up to eight persons.

.3 Training sign-in sheets must be included in the final documentation package and they must clearly identify; name of training, date of training, location of training (Joyceville institution), printed name of attendee, signature of attendee, and attendees comments on training.

.4 The training course and training materials must be approved by the DA before the course is given. The Contractor must provide a Power Point Presentation file of the operator training.

5.2 MAINTENANCE TRAINING

.1 The contractor must prepare and present a one-day training course to individuals responsible for the maintenance of the system. The course must concentrate heavily on the material contained in the technical manual and as-built drawings.

.2 The course must be presented on the site within two weeks of the successful acceptance testing of the system. The course must be presented in English to one group of six persons.

.3 The course syllabus will be presented to the RTEO for approval least two weeks prior to training commencement. Training sign-in sheets must be included in the final documentation package and they must clearly identify; name of training, date of training, location of training (Joyceville institution), printed name of attendee, signature of attendee, and attendees comments on training.

.4 The training course and training materials must be approved by the DA before the course is given.

5.3 MANUALS

.1 The Contractor must provide user and maintenance manuals in accordance with ES/SOW-0101.

.2 The Contractor must provide ten (10) copies of the user manual in English and two (2) copies of the maintenance manual in English to Joyceville Institution. The copies may be

provided as one (1) printed copy and the provision of separate CD's containing a PDF file of each manual.

.3 The contractor must provide one (1) copy of the user manual in English and one (1) copy of the maintenance manual in English to:

.1 The Design Authority (Electronic copy only)

.2 National Security Electronic Maintenance Contractor (NSRMC) Headquarters (attn: Project Manager, CSC National Maintenance Program).

.3 Regional Technical Electronic Officer (RTEO),

.4 Local CSC Authorized Service Contractor workshop,

.4 A completed Acceptance Test Plan (ATP) forms must be included in the maintenance manuals. The Contractor must provide copies of the completed maintenance handover report form contained in appendix A.

5.4 AS-BUILT DRAWINGS

.1 The contractor must provide as-built drawings of the site installation in AutoCAD 2005 format and in accordance with the specification ES/SOW-0101 Statement of Work.

.2 Within 30 days of an accepted ATP, the Contractor must provide two (2) copies of the as-built drawings to Joyceville Institution (NSRMC, and RTEO).

.3 The Contractor must also provide one (1) copy of the as-built drawings to:

.1 The Design Authority (Electronic copy only)

.2 The Regional Telecommunications and Electronics Officer (RTEO) for the Ontario Region

.3 ADGA Headquarters (attn: Project Manager, CSC National Maintenance Program).

5.5 SOFTWARE

.1 The contractor must provide CD copies of any system software in accordance with the specification ES/SOW-0101.

.2 The contractor must provide copies of the software to the site, one to the Design Authority, one to the RTEO, one to the local CSC Authorized Service Contractor workshop, and one to the CSC Authorized Service Contractor Headquarters.

5.6 TESTING

.1 The contractor must provide a detailed ATP to the DA, or his designated representative, by fax or email, for approval at least two weeks prior to the beginning of installation of the LSMS.

.2 The contractor must complete one hundred percent of the tests outlined in the ATP prior to the ATP testing being carried out by the DA.

.3 The contractor must provide a fully completed and signed copy of the ATP to the DA, or his designated representative, by fax or email, at least two working days prior to the start

of the final ATP testing. This copy of the ATP must include all of the results of the tests carried out in Section 5.6.2.

.4 In the case where subcontractors have been used, the contractor must provide written confirmation that the work of their subcontractor has been inspected and verified. This verification must be sent to the DA or his designated representative, by fax or email, at least two days prior to the start of the ATP.

.5 Testing may be carried out by the DA, a designated representative or a third party contractor.

.6 The DA may repeat all of the ATP tests done by the contractor or a percentage of them. If an unacceptable level of failed tests is encountered during the ATP testing by the DA; the ATP testing will be halted until the contractor has corrected the failures.

.7 If the DA during the ATP testing finds a minor deficiency that does not affect the operational effectiveness of the LSMS equipment or system, the ATP testing may continue. If a major deficiency is found during the ATP testing that does affect the operational effectiveness of the LSMS equipment or system; the testing must cease until the deficiency has been corrected.

.8 ATP testing must be done during normal working hours, 08:00 to 16:00, Monday to Friday. ATP testing at other times will only be done in an emergency situation.

.9 The DA or designated representative will sign-off on the ATP, upon the successful conclusion of the testing. Any minor deficiencies noted during the testing will be indicated on the ATP form. This signature indicates the Conditional Acceptance of the system.

.10 The system will be subjected to operational testing for a period of two (2) weeks following the Conditional Acceptance of the system. CSC will formally accept the system from the Contractor at the end of this two (2) week period, but only if ALL deficiencies have been corrected.

.11 Any deficiencies noted by CSC during this two (2) week operational testing period will be communicated to the Contractor, who will then be required to correct the deficiencies. The two (2) week operational testing period will begin again after all deficiencies have been cleared.

.12 The equipment warranty period will start on the date the system is formally accepted.

5.7 OPERATIONAL DOWN-TIME

.1 Equipment and systems operational down time must be kept to a minimum. All down time will be coordinated with the Correctional Manager Operations (CMO) and the Correctional Manager – Intensive Intervention Unit (IIU) on site or designate. The contractor's staff may be required to work during evenings, nights and/or weekends to reduce the amount of down time and to meet operational requirements.

5.8 INSTITUTIONAL OPERATIONS

.1 The contractor must take every precaution to minimize any disturbance to institutional operations. The contractor and his staff on site must cooperate fully with operational staff and conform to all security requirements.

5.9 INSTITUTION ADDRESS

.1 Joyceville Institution
Highway 15
P.O.Box 880
Kingston, Ontario, K7L 4X9

.2 Institutional Contact:
Don Graves
Chief Plant Maintenance
Tel: 613-536-6573
Fax 613-536-6622

.3 Regional Contact:
Daniel Smith
National Headquarters Project Leader
Correctional Services Canada
Regional Headquarters (Ontario)
443 Union Street / PO Box 1174
Kingston, ON K7L 4Y8
Tel. 613-536-4746
Cell: 613-449-1597

5.10 SECURITY

.1 The Contractor must submit completed CPIC forms for all employee who will be working at the Institutions. The CPIC forms must be submitted to the Regional Electronics Program Officer (REPO), ten (10) working days prior to the start-up date.

5.11 SAFETY

.1 The Contractor must comply with the document titled" Safety Regulations for Security Electronics Contractors Working at CSC Institutions" attached as Appendix B.

5.12 MAINTENANCE

.1 The contractor must provide the following additional information:

- .1 The location of available service facilities (after sales, service and repairs)
- .2 The location of available replacement parts
- .3 Response time for service calls
- .4 The cost of service calls/cost of post warranty service contract

.5 The location of the availability of technical expertise in case of difficulties

.6 Recommended spare parts list

5.13 COMMUNICATION RESPONSIBILITY

.1 The Contractor is responsible for briefing institution staff prior to leaving the work site for the day. The briefing must be given to the Chief of Plant Maintenance (CPM), or designate, and must include, as a minimum:

.1 Work performed that day

.2 Operation status of the system, including any limitations in functionality or peculiarities

.3 Contact name and number in the event of a system failure

.4 Emergency contact numbers of installation technicians

APPENDIX A

CORRECTIONAL SERVICE OF CANADA
TECHNICAL SERVICES BRANCH
ELECTRONICS SYSTEMS

MAINTENANCE HANDOVER REPORT FORM

INSTITUTION: **DATE:**

SYSTEM/EQUIPMENT:

APPLICABLE CONTRACT NO:
DSS FILE NO:
SPECIFICATIONS:

EQUIPMENT SUPPLIER (NAME AND ADDRESS):

SUPPLIER CONTACT (NAME AND TELEPHONE):

WARRANTY DETAILS:

Expiry date on materials/parts:
Expiry date on installation:
Expiry date on factory labor:

Travel & living expenses during the warranty period:

chargeable to CSC ☐

not chargeable to CSC ☐

Equipment transportation costs are paid by CSC for:

sending to the supplier ☐

returning from the supplier ☐

Negotiated rates for emergency repairs at site due to misuse/abuse during warranty period are as follows:

Not applicable.

Negotiated rates for labor at site after warranty period are as follows:

Not applicable.

DEFICIENCIES:

None remain ☐

List attached ☐

DOCUMENTATION:

Maintenance manual:

Supplied ☐

Due by ;

As-built drawings, cabling and wiring diagrams:

Supplied ☐

Due by ;

Acceptance test results:

Supplied ☐

Due by ;

DISTRIBUTION OF DOCUMENTATION:

1 copy to CESM sent on:
1 copy to RATIS/RTEO sent on:
2 copies to institution sent on:

SPARES:

All delivered ☐
Delivery to be completed by ;

EQUIPMENT LIST:

See attached list. ☐

MAINTENANCE TRAINING:

Completed ☐
Scheduled for ;

SIGNATURE: Project Manager

DISTRIBUTION: CESM, NHQ
RATIS/RTEO, RHQ

APPENDIX B

SAFETY REGULATIONS FOR SECURITY ELECTRONICS CONTRACTORS WORKING AT CSC INSTITUTIONS

1. Acts and Regulations

a. The contractor must, at all times, be in full compliance with the latest issue of the following Acts and Regulations:

1. The Occupational Health and Safety Act of the province where the work is being carried out,
2. The Canada Labour Code Part II,
3. The National Building Code Part VIII,
4. The Workers' Compensation Board regulations of the province where the work is being carried out,
5. Safety regulations and procedures prepared by the Institution where the work is being carried out,
6. All other safety regulations in effect at the work site.

b. In the event of conflict between any provisions of the above authorities the most stringent must apply.

2. Safety Plan

a. The contractor is responsible to ensure that a site specific Safety Plan has been completed and maintained on site. The contractor must provide the Safety Plan, when requested, to Institution Staff and the Safety Officers and Inspectors authorized by the Acts and Regulations listed in Paragraph 1.a. above. The Safety Plan must include a hazard assessment, controls, an emergency plan and a communications strategy.

b. The contractor must complete a hazard assessment. All critical tasks and the associated hazards must be identified.

c. Once hazards are identified, controls must be put in place to minimize the risks. The controls must include but not be limited to Safe Work Practices, Standard Operating Procedures and safety inspections.

d. An emergency plan must be prepared that takes into consideration all of the

identified hazards and the potential problems that could arise during the project. The emergency plan must outline the emergency procedures to be taken in the event of an accident and must include the contact names and telephone numbers of emergency response persons and services. The list of emergency response persons and services should include but not be limited to the following:

Ambulance,
Fire Department,
Police Department,
Institutional Safety Officer.

e. A communications strategy must be put in place that will ensure that information concerning hazards, controls and the emergency plan is communicated to all of the contractor's staff, sub-contractors, equipment operators, material suppliers, testing and inspection companies and regulatory agencies working at the institution.

f. The Safety Plan must address and confirm to the Acts and Regulations identified in Paragraph 1.a. above.

g. The submission of the Safety Plan to Correctional Service Canada must not relieve the Contractor of any legal obligations as specified by the Acts and Regulations listed in Paragraph 1.a. above.

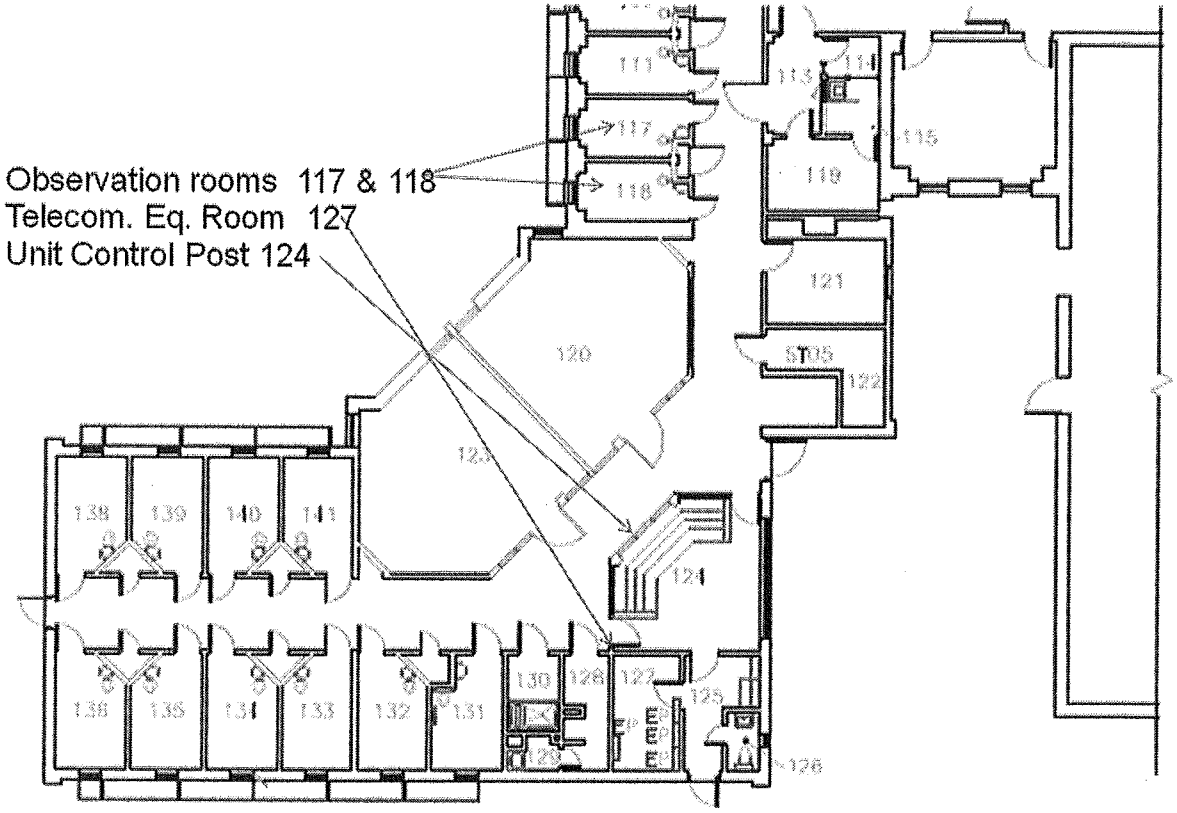
3. Safety Training

All of the contractor's staff , sub-contractors, equipment operators, material suppliers, testing and inspection companies and regulatory agencies working at the institution must have received the required safety training as mandated in the Acts and Regulations listed in Paragraph 1.a. above.

APPENDIX C

SITE SPECIFIC REQUIREMENTS

Joyceville Institution from Drawing JVJ03-1



END OF SECTION

Correctional Service Canada
Technical Services Branch
Electronics Systems

ES/SPEC-0507
Revision 3
11 June 2012

ELECTRONICS ENGINEERING SPECIFICATION

Life Sign Monitoring System (LSMS)

AUTHORITY

This Specification is approved by Correctional Service Canada for the procurement and installation of a Life Sign Monitoring System (LSMS) in Canadian federal correctional institutions.

Recommended corrections, additions or deletions should be addressed to the Design Authority at the following address: Director, Engineering Services, Correctional Service of Canada, 340 Laurier Avenue West, Ottawa, Ontario, K1A 0P9

Prepared by: Sylvio Bisson

Checked by: Mark Bottomley

Approved by:

Project Officer,
Electronics Systems Research

Director,
Engineering Services

RECORD OF REVISIONS

Revision	Paragraph	Comment
0	N/A	Original issue
1	All over the doc	Change shall to must
2	All over the doc.	Minor format changes
3	-Adding switch at cells to enable monitoring: Section 3.8.8.1 -Adding section 3.7.1.3 to address procedure conflict. Adding an switch at the observation cells to indicate status of the cell (occupied/Not Occupied) -Removing the requirement for an RFID card reader in section 3.7.1.3 and adding the an ACO in sections 3.7.1.6, 3.8.3 .x	To answer questions raised during the site visit at Joyceville

Table of Contents

ABREVIATIONS

.1 The following abbreviations are used in this specification:

.2	ACO	Alarm Cut Off
.3	ATP	Acceptance Test Procedure
.4	CER	Common Equipment Room
.5	COTS	Commercial-Off-The- Shelf
.6	CSA	Canadian Standards Association
.7	CSC	Correctional Service Canada
.8	DA	Design Authority
.9	DES	Director Engineering Services
.10	EIA	Electronic Industries Association
.11	ES/SOW	Electronics Systems/Statement of Work
.12	ES/SPEC	Electronics Systems/Specifications
.13	ES/STD	Electronics Systems/Standard
.14	FAAS	Facility Annunciation Alarm System
.15	GFE	Government Furnished Equipment
.16	ID	Identification
.17	LSMS	Life Sign Monitoring System
.18	MHz	Megahertz
.19	mW	Milli-watt
.20	MCCP	Main Communications and Control Post
.21	PTT	Push-to-Talk
.22	REPO	Regional Electronics Program Officer
.23	RFP	Request for Proposal
.24	RTO	Regional Technical Officer
.25	RTEO	Regional Technical Electronic Officer
.26	SDK	Software Development Kit
.27	SOW	Statement of Work
.28	TCP/IP	Transmission Control Protocol/Internet Protocol

DEFINITIONS

.1 The following definitions are used in this specification:

.1 Design Authority: Director, Engineering Services (DES) ; Correctional Service Canada (CSC) is responsible for all technical aspects of the system design and implementation.

.2 Contractor: The Company selected as the successful bidder.

.3 Project Officer: A CSC employee or a contracted person designated by DES to be responsible for the implementation of the project.

.4 Off-the-shelf: Equipment currently on the market with available field reliability data, manuals, engineering drawings and parts price list.

.5 Custom Equipment: Equipment designed and/or manufactured specifically for a specific contract.

1 INTRODUCTION

1.1 GENERAL

.1 This specification defines the design, technical and performance requirements for the evaluation of a Life Sign Monitoring System (LSMS). For this evaluation the LSMS will be used as a standalone system and therefore will not be integrated with any other system.

.2 The LSMS must incorporate the hardware necessary to perform status monitoring, alarm processing, and display and control of the system.

.3 The contractor must be responsible for integrating all subsystems and must provide all material and labor required for the design, supply, delivery, installation, testing and commissioning of the LSMS. The contractor must provide the documentation and training to the extent described in this and other identified documents.

1.2 COMMERCIAL-OFF-THE-SELF EQUIPMENT

.1 The system must use commercial off-the-shelf (COTS) equipment and proven designs to the maximum extent possible. All new equipment must meet the specified lifespan requirements.

1.3 TECHNICAL ACCEPTABILITY

.1 The Correctional Service Canada (CSC) operational environment is unique for its diversity of locations, climate exposures and the physical restrictive construction techniques of penal institutions. Maintaining national security, the safety of staff and offenders alike is CSC's commitment to the government and public. Electronic security systems operating in this unique environment must maintain very high standards of dependability and reliability.

.2 The CSC Technical Services Branch, Engineering Services Division has established technical specifications and equipment standards for specific electronic security systems which are based on very specific and restrictive operational performance criteria as detailed in its Electronic Engineering Standard. Technical acceptability of these systems means that the equipment complies with the pertinent CSC specifications and standards.

.3 The technical acceptance process must involve system and subsystem evaluation in accordance with the applicable CSC specifications in one of CSC's facilities to verify the effectiveness of the proposed technologies when subjected to the restrictive operational environment.

.4 CSC must verify the LSMS in an observation cell and verify in depth any of the system technical specifications called up. CSC may deem it necessary for the supplier to arrange for a full site demonstration. CSC may rely on manufacturer's test results for

specific areas of the specification where an independent test facility has conducted the test, and the facility is deemed acceptable to CSC.

.5 Equipment qualification is an ongoing process and can be initiated at any time by a vendor. Any vendor can have access to the CSC specifications and standards. Any new development or products should be submitted to the CSC Engineering Services Division, Technical Authority in a suitable time frame prior to any tendering process to allow for an acceptable evaluation period. The evaluation period may take up to sixteen (16) months.

1.4 EQUIPMENT PROCUREMENT

.1 Any ordering of equipment/material before the approval of the system design report will be undertaken at the contractor's own risk. The Design Authority may authorize the procurement of certain long lead items at, or shortly after a preliminary design review of the proposed system.

1.5 QUANTITY OF EQUIPMENT

.1 The quantity and location of the equipment required for CSC institutions will be contained in the specification identified in the Statement of Technical Requirements (STR)

2 APPLICABLE DOCUMENTS

2.1 SPECIFICATIONS, STANDARDS, AND STATEMENTS OF WORK

.1 The following documents of the issue in effect on the date of the Request for Proposal (RFP) must form a part of this specification to the extent specified herein:

.1 ES/SOW-0101 Statement of Work for Procurement and Installation of Electronic Systems

.2 ES/SOW-0102 Statement of Work for Quality Control of Electronic System Installations

.3 ES/SOW-0110 Statement of Work for Structured Cable Systems for Electronic Systems Installations

.4 ES/STD-0227 Standard for LCD Colour Monitors

.5 EIA-310 Electronic Industry Association Standard for Racks, Panels and Associated Equipment

3 REQUIREMENTS

3.1 GENERAL

.1 Correctional Service of Canada wants to reduce the number of deaths of inmate in custody. New technology is becoming available to assist in the identification and notification of the cessation of movement within a cell environment, and therefore reducing the time to the awareness of a problem and thus to subsequent actions; thereby potentially saving lives.

.2 The intent of this is to specify a Life Sign Monitoring System to be added to existing observation cells within a Federal Institution.

.3 The LSMS must provide the operator with centralized monitoring and control capability of the observation cells. The LSMS Console must incorporate industrial quality and commercially available controllers and Video Display Units (VDU). The VDUs must display the status of monitored subsystems and provide software control of system features, to the extent specified herein.

.4 To the maximum practical extent, off-the-shelf, Design Authority type-approved equipment must be selected for use in the system.

3.2 PERIOD OF OPERATION

.1 The LSMS Integration Console and all associated equipment must be designed for and capable of 24 hours per day, seven days per week operation.

3.3 WIRES, CABLES, CONDUITS, DUCTS

.1 The contractor must supply all necessary terminations, cross connection cabinets, conduits, wire and cabling and any other items that may be required for the satisfactory installation of the specified system. All installation workmanship must be performed in accordance with ES/SOW-0102, SOW and all applicable national, provincial, and local electrical codes.

.2 A wiring diagram must be supplied in the installation section of the Maintenance Manual to detail where module connections terminate and how wires are routed and terminated.

.3 Conduits, cables, ducts, trays, etc. may be either Government Furnished Equipment (GFE) or supplied and installed by the contractor depending on the particular institution. The determination will be made by the Design Authority and will be identified in the Request for Proposal.

.4 Connectors provided on the ends of any cable must mate with the corresponding connector on the equipment. Adapters from one type of connector to another are not acceptable.

3.4 WIRING SUPERVISION

.1 Wiring must be supervised in all system modes. An alarm must occur if any system wiring is cut or shorted to other wires or if the system devices are tampered with by unauthorized people or environmental conditions.

3.5 SABOTAGE, TAMPERING AND SURVIVABILITY

.1 Elements of the system must have high resistance to damage or destruction. All interconnecting service must be secure against tampering

3.6 HUMAN FACTORS

.1 Elements of the system which are used directly by staff (i.e., control panels, etc.) must conform to accepted principles of good human factors design.

3.7 GENERAL SYSTEM CONFIGURATION

.1 The LSMS might consist of the following elements:

- .1 Sensors to detect absence of life signs
  - .1 Deployed within a protective dome at the ceiling or harden enclosure around the wall of an observation cell.
- .2 Door contacts/sensors to monitor "open" and "shut" status or interfacing with the doors control system
  - .1 Deployed to all doors and hatches of an observation cell.
- .3 A clearly visible occupancy switch, labelled with Occupied/Not occupied, to indicate the status of a cell to the system: Occupied or Not occupied.
  - .1 Deployed to all observation cells.
- .4 Administration console
  - .1 A screen, keyboard, and mouse for administration of the system
  - .2 Deployed in the TER
- .5 Servers
  - .1 All necessary system processing equipment, rack mounted
  - .2 Connection to an existing UPS if sufficient spare capacity is available
  - .3 Connection to an new UPS if sufficient existing capacity is not available
  - .4 Remote link to the Unit Control Post for the operator interface
  - .5 Server with interface to key board, mouse and a video (admin console). Refer to ES/STD-0227 for LCD Colour Monitors specification.
    - .1 The server will be used to process the data from the Sensor and 24/7 monitoring and interpretation
- .6 Operator console
  - .1 A monitor with touch screen and speakers
  - .2 An Alarm Cut Off (ACO) switch to acknowledge and mute audible alarms

3.8 LSMS Functional requirement

.1 Definitions

.1 A fault is a state where the system cannot perform its primary function and a maintenance action is required to fix the system.

.2 An alarm is a state where the life signs of the inmate are absent or compromised such as apnoea, or stop of breathing movement.

.3 An event include alarms, faults, acknowledges of alarms and faults, and power on/off..

.2 LSMS must not raise any false alarm due to movement activities outside the Cell walls.

.3 The system must immediately display a RED icon and audible alarm upon the detection of lack of life signs for a configurable interval (default set to 75 sec);

.1 An Alarm Cut Off (ACO) switch must be provided to accept an alarm acknowledge to mute the alarm.

.2 Acknowledging the alarm is not required prior to clearing the alarm

.3 Clearing the alarm must be done when cell door is open

.4 The system must keep an activity log. This log must capture and retain all event activity including status changes, alarms, alarm acknowledges, alarm cancellations, monitor enable/disable, and faults for a minimum of one year.

.5 The system reliability and maintainability must:

.1 Have a minimum Mean Time Between Failure (MTBF) of 99.99% or no more than 87 hours of down time per year.

.2 Raise a minor fault and continue operating in the event of a single sensor failure.

.3 Raise a major fault in the event of a failure impacting system performance .

.6 The system must have a Mean Time To Repair (MTTR) below 1 hour:

.1 All major components of the system must be clearly labelled

.2 All major components of the system must be easily replaceable

.3 All major components of the system should have a red and a green LEDs to identify working status (RED meaning component failed, and GREEN meaning component is up and running and active)

.4 LSMS must report to the administration console the status of each component

.5 LSMS must report to the operator console the status of the system as OK, Degraded, or Failed.

.7 The system must provide the following features at the administration console

.1 Restrict access with a password feature

.2 Allow system configuration

.3 Review of event logs

.4 View system status

.5 Plot statistics

.6 Backup event and configuration data

.7 Initiate self testing functions for all the major components of the system. e.g. Sensors, magnetic contacts, computer, etc

.8 Initiate cell integrity testing functions when cell is not occupied. Confirm absence of any "life signs".

.8 The system must provide the following features at the administration and operation consoles

.1 Enable/disable cell monitoring via an occupancy switch located at the observation cell door.
Note that normal procedure requires that cells' door have to be closed when a cell is occupied or not.

.2 Display cell physical status:

.1 Occupied or not occupied based on occupancy switch located at the cell

.2 Door/hatch open or close

.3 Display system status:

.1 OK; everything is up and running

.2 Degraded - Minor fault, system still functional, possibly degraded

.3 Failed - Major fault, system is not functional and requires repair

.4 View Cell inmate life sign status

.1 RED alarm: inmate needs immediate attention

.2 YELLOW alarm: apnoea breathing pattern detected

.3 GREEN: no problem detected.

.9 The system must include a preventative maintenance to ensure proper system operation

.10 The system must ensure materials used as part of the system in the inmate area are vandal resistant and can't be used as a weapon when broken or damaged by the inmate. I.e. sensor dome should be very soft or very hard and not breakable.

.11 All of the required components for the system must be contained within locked protective casings and contain security features, both physical and electronic, that will indicate any unauthorized access to the system.

4 MECHANICAL CONFIGURATION

4.1 ENVIRONMENTAL REQUIREMENTS

.1 The LSMS Solution must operate over the following indoor environmental conditions:
Temperature: 0° C to +50° C
Humidity: 0 to 90% relative, non-condensing
Location: sheltered environment.

4.2 POWER REQUIREMENTS

.1 The system must use VAC power within the following limits:

.1 Voltage: 120 VAC ±10%;

.2 Frequency: 60 Hz ±1.5%;

.3 Transients: up to 5 times the nominal voltage for up to 100 msec durations. Changes in the input power or any fluctuations within the above limits must not cause damage to the unit;

.2 Total power consumption must not exceed 1,000 watts.

4.3 INSTALLATION REQUIREMENTS

.1 The LSMS solution must be installed at the site in accordance with the ES/SOW-0101, Statement of Work and the ES/SOW-0102, Statement of Work.

4.4 DOCUMENTATION REQUIREMENTS

.1 All final LSMS documentation must be in accordance with the ES/SOW-0101, Statement of Work.

4.5 SUPPORT REQUIREMENTS

.1 The LSMS maintenance and spares support must be provided in accordance with the ES/SOW-0101, Statement of Work.

4.6 TRAINING REQUIREMENTS

.1 Operator training and maintenance training on the LSMS solution must be in accordance with the ES/SOW-0101, Statement of Work.

5 QUALITY ASSURANCE

5.1 GENERAL

.1 The LSMS Quality Assurance programme must be provided as detailed in the ES/SOW-0101, Statement of Work.

.2 All on-site installation work, test plans and LSMS acceptance testing must be conducted in accordance with the ES/SOW-0101, Statement of Work.

6 DELIVERY

.1 Delivery requirements for the LSMS documents, drawings, plans, manuals, etc. (where applicable) must be in accordance with the ES/SOW-0101, Statement of Work.

.2 Delivery requirements of the LSMS equipment must be in accordance with the ES/SOW-0102, Statement of Work.

7 INTERFERENCE

.1 Performance of the LSMS must not be affected by the use of standard electronic equipment used at the institution.

.2 Distance limits of standard electronic equipment are as follows:

.1 5 watt CB transceivers at 1 metre or more;

.2 6 watt VHF and UHF transceivers at 1 meter or more;

.3 25 mW 420-430 MHz Personal Portable Transmitters at 1 metre or more;

.4 Other radio frequency transmitting receiving and redistribution equipment at 5 meters or more; and

.5 Personal computer and/or computer work stations at 5 meters or more.

8 SAFETY

.1 All LSMS electrically powered elements must be CSA, UL, ULC or CE approved, as required by law.

END OF SECTION

ANNEX "A"
PRICING SHEET
Revised on June 12, 2012

Purchase of the LSMS at Joyceville Institution

All prices must be firm in Canadian dollars, Delivery Duty Paid (Joyceville Institution, Kingston, Ontario), Goods and Services Tax or the Harmonized Sales Tax extra, transportation costs to destination and all applicable Custom Duties and Excise Taxes included.

1. DESIGN AND EQUIPMENT

Firm Lot Price for the design and all related equipment, excluding spare parts.

FIRM LOT PRICE $_____

2. INSTALLATION AND TESTING COSTS

2.1 The price must include all costs excluding travel and living expenses, related to the installation and testing of the equipment as per STR, Paragraph 4.4 and 5.6.

FIRM LOT PRICE $_____

2.2 INSTALLATION AND TESTING OF EQUIPMENT (FIRM HOURLY RATES)

Labour Categories	Hourly Rate **During**	Hourly Rate **Outside**
_____	$_____	$_____
_____	$_____	$_____
_____	$_____	$_____
_____	$_____	$_____

The bidder must submit a firm hourly rate for installation and testing during and outside normal working hours for each labour category required.

The labour rates identified above will apply for emergency repairs, delays and design changes.

3. TRAVEL AND LIVING EXPENSES ASSOCIATED WITH THE INSTALLATION AND TESTING OF THE EQUIPMENT

Institution	FIRM LOT PRICE
JOYCEVILLE INSTITUTION Travel required ____yes ____no Estimated Number of Individuals _____ Estimated Number of Days _____	$_____

4. ON-SITE OPERATOR TRAINING

Firm Lot Price including travel and living expenses as per STR paragraphs 5.1 and 5.2.

FIRM LOT PRICE $_____

5. DOCUMENTATION

5.1 AS-BUILT DRAWINGS

Firm lot price for As-Built drawings as per STR, paragraph 5.4.

FIRM LOT PRICE $_____

5.2 OPERATOR AND MAINTENANCE MANUALS

Firm lot price for all operator and maintenance manual documentation packages as per STR, paragraph 5.3.

FIRM LOT PRICE $_____

6. SOFTWARE/INTEGRATION

Firm Lot Price the software/integration as indicated in the STR, 5.5.

FIRM LOT PRICE $_____

OPTION

7. SPARE PARTS/ REPLACEABLE/TEST EQUIPMENT

The bidder must submit a spare parts and/or test equipment list identifying each recommended spare parts and/or test equipment required. The bidder must also submit a firm unit price for each recommended spare parts and replacable parts required in order to meet ES/SPEC-0507.

FIRM LOT PRICE $_____

8. Note: The following is required for information purposes only and will not be included in the financial evaluation of this solicitation.

Integration - Attach separately

For information purposes only, bidders are invited to submit associated pricing and details for integration clause 4.5.1 as requested in STR LSMS, Revision 4 dated 11 June 2012.

Prices will not be included in the evaluation of bids and will not be ordered under this Contract.

Mandatory Site Visit - June 01 - 13:15

Joyceville Institution, Kingston, Canada

21120-124209/A

Company Name	Rep Name	Telephone	Email
Marcumm Systems Group	Marc-André Bergeron	613-295-2463	mbergeron@msgi.ca
Falcon Security/Marcum	Sgt C. Corbeil	613-544-0521	ccorbeil@falconsecurity.ca