

**Correctional Service Canada
Technical Services Branch
Electronics Systems**

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**STATEMENT
OF
TECHNICAL REQUIREMENTS

FOR THE ADDITION

of

STRIP AND V&C CCTV CAMERAS

at

COLLINS BAY INSTITUTION
(MEDIUM SECURITY)**

AUTHORITY

This Statement of Technical Requirements is approved by the Correctional Service of Canada for the upgrade of the existing CCTV System at Collins Bay Institution Medium Security Unit.

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ABBREVIATIONS

The following abbreviations are used in this specification:

CER	Central Equipment Room
CESM	Chief Electronic Systems Maintenance
CMO	Correctional Manager Operations
CSC	Correctional Service Canada
CSA	Canadian Standards Association
CCTV	Closed Circuit Television
CFM	Cubic Feet / Minute
DA	Design Authority
FOV	Field Of View
GB	Gigabit
IP	Internet Protocol
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LOF	Laser Optimized Fibre
MCCP	Main Communication Control Post
NVUS	Network Video User Station
NVR	Network Video Recorder
PIU	Perimeter Integration Unit
PoE	Power over Ethernet
RETO	Regional Technical & Electronics Officer
SAT	Site Acceptance Test
SATA	Serial ATA (Advance Technology Attachment)

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SOW	Statement of Work
STR	Statement of Technical Requirements
TtT	Train the Trainer
UPS	Uninterruptible Power Supply
UTP	Unshielded Twisted Pair
VMS	Video Management Software

DEFINITIONS

The following definitions are used throughout this specification:

Design Authority: Director, Engineering Services, Correctional Service Canada (CSC)

Contract Authority: Public Works & Government Services Canada

Contractor: The Company selected as the successful bidder on the contract.

1.0 INTRODUCTION

1.1 General

The Correctional Service of Canada (CSC) has a requirement to provide additional CCTV cameras on the main strip and in the V&C areas at Collins Bay Institution. This requirement includes replacement of cameras in the hospital off the main strip area. This project will result in an expansion of the existing digital Closed Circuit Television (CCTV) system installed at Collins Bay Institution. All new CCTV equipment is to be fully integrated into the existing Genetec Omnicast 4.8 VMS digital CCTV video recording system. This Statement of Technical Requirements (STR) will cover the technical requirements for the required work.

Collins Bay Institution is a medium security facility located in Kingston, Ontario. Work will have to be accomplished with minimum disruption to the daily operation and security of the institution. To satisfy this requirement, the existing system must remain operational at all times unless permission and planning have been approved in writing by the project authority and it has been coordinated with the institution. The contractor may be required to work afterhours on major changes in the infrastructure.

1.2 Scope

The contractor must supply, install, test, and provide operational and maintenance training on the additions to the CCTV system, as described in this STR. The contractor must provide acceptable documentation for the operation and the maintenance of this system. All new CCTV equipment provided under this contract must be 100% integrated into the existing Genetec Omnicast 4.8 VMS software and the S100 PIU.

1.3 Requirements

The purpose of this STR is to define the technical aspects and describe specific work requirements for the upgrade of the CCTV system at the Collins Bay Institution. 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

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.

The CSC Engineering Services Division has established Statements of Work (SOW), technical specifications and standards for security electronic systems, which are based on very specific, and restrictive operational performance criteria. Technical acceptability of these systems means that the systems equipment and components comply with the pertinent CSC SOWs, specifications and standards.

2.0 **APPLICABLE DOCUMENTS**

2.1 **Applicability**

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

2.2 **Applicable Statements of Work, Specifications and Standards**

- A. ES/SOW-0101 Electronics Engineering Statement of Work – Procurement and Installation of Electronic Security Systems
- B. ES/SOW-0102 Electronics Engineering Statement of Work – Quality Control for Procurement and Installation of Electronic Security Systems
- C. ES/SOW-0110 Electronics Engineering Statement of Work – Structured Cable Systems for Electronic Security Systems
- D. ES/SPEC-0006 Electronics Engineering Specification – Conduit, Space and Power Requirements for Security Systems for use in Federal Correctional Institutions
- E. ES/STD-0227 Electronics Engineering Standard, LCD Colour Computer Monitor, Closed Circuit Television
- F. ES/STD-0228 Electronics Engineering Standard, Network Video User Station, Closed Circuit Television
- G. ES/STD-0229 Electronics Engineering Standard, Network Video Recorder, Closed Circuit Television
- H. ES/STD-0232 Electronics Engineering Specification – Fixed Network Colour Dome Camera
- I. ES/STD-0233 Electronics Engineering Standard, Indoor Network Colour and Black/White No Grip Corner Mount Camera, Closed Circuit Television

2.3 **Language**

The language at the Collins Bay Institution is English. All CCTV system display and control indicators and information will be in English only. The operator manuals, maintenance manuals and as-built documents will be provided in English only. Documentation will be provided as per Paragraphs 5.1 through 5.4.

3. OPERATIONAL CRITERIA

3.1. General

The contractor must supply and install new CCTV equipment to expand an existing CCTV system. Work will include addition of equipment, installation of equipment, and programming of the Genetec VMS software and the Senstar S100 PIU to accommodate all new equipment. Work will also include installation of conduit and cable to interconnect equipment identified in this statement of technical requirement.

The system expansion will consist of the provision and installation of

- 3.1.1. 22 x Fixed colour CCTV cameras
- 3.1.2. 4 x NVUS clients and 5 monitors
- 3.1.3. 1 x Genetec Omnicast archiver and storage
- 3.1.4. 1 x Genetec licensing for 20 cameras and 4 NVUS clients.
- 3.1.5. 1 x additional software as required meeting the operational criteria as described herein.

3.2. Operational Parameters

3.2.1. The operational parameters of the installed equipment shall meet the performance and operational requirements in accordance with the SOW's, Specifications and Standards listed in paragraph 2.2 except where this document specifically identifies a specification or standard that exceeds or differs from the specifications and standards listed in section 2.2 of this document.

3.2.2. The system upgrade will require additional licensing of the existing Genetec VMS software to support 4 additional clients and 22 additional cameras. The contractor must provide all necessary additional software licensing to complete the expansion described in this statement of technical requirement. All Work on the VMS software, network support equipment and CCTV clients must be integrated by a certified Genetec reseller employing trained and certified Genetec installation/integration technicians. Installation technicians Genetec certifications qualifications will be confirmed with Genetec. The contractor must provide a copy of Genetec VMS certification certificate for all installation technicians involved in programming or setup within the Genetec VMS software.

3.2.3. The contractor must integrate all system alarms into the existing Senstar S100 FAAS perimeter integration unit. This will include Genetec archiver alarms, camera alarms and UPS alarms.

3.3. System Specifics

3.3.1. This project will see a turn-key digital CCTV expansion of the existing Genetec CCTV system installed at Collins Bay Institution, located at Collins Bay Ontario. This system will be complete with all necessary mounts, cable dressing brackets and straps. All conduit and cable provided will meet CSC – Electronics standards and specifications. All new equipment provided must seamlessly integrate into existing digital CCTV equipment and the project will result in an expansion of the existing GENETEC Omnicast 4.8 Video Management System.

3.3.2. Specifics of operation for all new CCTV equipment are detailed in Annex C of this STR.

3.3.3. Installation of this upgrade will not interfere with the operation of existing equipment and video recording at the Institution without the explicit written permission of the contract authority.

3.3.4. Provision, installation and programming of all equipment as detailed within this document into the existing Genetec VMS based CCTV system at Collins Bay Institution.

3.3.5. Updates to maintenance manuals, IP assignment tables, as-built drawings to reflect all modifications to the existing CCTV system that result from this project.

4. TECHNICAL REQUIREMENTS

4.1. **Concept of Operation**

4.1.1. Video surveillance of certain sensitive areas is required to maintain a safe and secure environment for both staff and inmates. CCTV cameras will be installed on the main strip, hospital and the V&C area. 2 clients will be installed with monitors at identified locations on the strip control desk, PECP, and in the V&C office to provide the required video surveillance.

4.1.2. All control functions such as view selection and display of cameras on the strip NVUS client will be programmed into the provided NVUS client. The NVUS client will automatically boot to the assigned camera views and shall not allow any user adjustment capability. Details of NVUS client configuration is detailed in Annex D of this document.

4.2. **Existing System Verification**

4.2.1. Prior to commencing any new work the contractor must test the operational characteristics of all existing equipment and systems, whose equipment is in proximity to where work will be carried out or which will be reused, prior to removal or installation of any equipment and provide a written record of these tests to the Crown.

4.2.2. The contractor must identify any operational deficiency of equipment or be held accountable for any systems deficiencies during the commissioning period.

4.2.3. The contractor must test all existing fibre optic cabling to be re-used in this project and provide detailed light budget analysis and OTDR readings for all fiber strands. Test results will include the following:

- 4.2.3.1. Origin and destination of cable
- 4.2.3.2. Light loss in dB over cable – pass/fail – dB
- 4.2.3.3. Length of cable – in meters
- 4.2.3.4. Pass/fail

4.3. **Removal of Equipment and Cables**

4.3.1. The contractor must remove all redundant cables, conduit and equipment located in and on various buildings. Care must be taken to ensure that any cables and conduits of other systems are not damaged. All electronic equipment must be handed over to CSC in good condition. The contractor must dispose of all of the removed cables and conduit off site in an environmentally friendly way.

4.3.2. The contractor must provide to the Design Authority, a list of all equipment to be removed 2 weeks prior to any equipment removal. This list will contain the following information as a minimum; location, make, model and serial number. The contractor must return all removed equipment to the local ADGA electronic maintenance workshop, where it will be inventoried and tagged for disposal. This information will be used to ensure the removal of the equipment from the maintenance contract, and its proper disposal.

4.4. **System Installation**

4.4.1. The contractor must provide, install and test a complete and fully functional IP based expansion of the existing CCTV system. The resulting expanded CCTV system must meet or exceed all of the performance and operational requirements contained in the SOW's, specifications and standards listed in Section 2.2. Where there is a conflict between a published specification and this STR; this STR will be the document of reference.

4.4.2. The contractor must avoid, as much as possible, the use of conduit in inmate accessible areas. The contractor must utilize existing pipe chases, existing conduit in the walls, etc., where possible. New lengths of conduit must be of the minimum necessary length. All newly installed conduits carrying video for this project must be identified, except in inmate accessible areas, by prominent labels with **BRIGHT GREEN** wording. The contractor must use only rigid threaded conduit in inmate accessible areas. These labels must be located at each end of the conduit run, on both sides of any penetration of a wall. All junction box covers and conduit joints will be painted bright green except where installed in inmate accessible areas.

4.4.3. The contractor must test all new structured cabling to be installed as part of this project with a certified CAT6 LAN Analyzer and provide detailed analysis and LANCAT readings for all cables.

- 4.4.3.1. Wire map - pass/fail
- 4.4.3.2. Propagation Delay – pass/fail
- 4.4.3.3. Cable Length – pass/fail – length
- 4.4.3.4. Insertion Loss – pass/fail – dB
- 4.4.3.5. Return Loss – pass/fail
- 4.4.3.6. NEXT – pass/fail
- 4.4.3.7. ELFEXT – pass/fail

4.4.4. The use of flex conduit will only be permitted by written authorisation from the project authority on a case by case basis; the use of flex conduit is not permitted in inmate accessible areas.

4.4.5. In secure office areas where drywall construction is used the contractor must fish a flexible conduit and associated cabling to support KVM extension devices inside the walls. The walls will be finished with an appropriate CAT6 termination plate, labeled to the device. ALL visible CAT6 RJ 45 plugs will be **BRIGHT GREEN**. When fishing cable into a wall the contractor will use flexible conduit. In offices that are not adjacent to an inmate occupied area, where it is not possible to fish the cable into a hollow wall or the wall is solid (e.g. concrete filled cinderblock or poured concrete slab) the contractor may use a decorative wire mold to run the necessary cables to the defined location of the equipment. Wire mold will meet the Ontario Electrical Code when supporting power.

4.4.6. All data cables and data jumper cables (minimum 23 gauge), jacks and connector boots installed as part of this project, whether CAT6 or fibre optic, must be **BRIGHT GREEN** in colour. All cables must be FT4 rated except where cable is not protected in a conduit or in a plenum ceiling, such cable must meet a FT6 fire rating

4.4.7. All cabling in equipment cabinets, termination trays, cable trays, junction boxes, and at edge devices will be neatly dressed using Velcro style “hook and loop” re-useable straps. Cable straps must encircle all the cables in a given bundle. Any cable found to be secured with a nylon tie-wrap as a result of this project, will require replacement of the entire cable.

4.4.8. All cabling in equipment cabinets will be dressed throughout the cabinet. Cables entering a cabinet from the top will be routed to the base of the cabinet and then return to the designated equipment height, the reverse for cables entering the bottom. Vertical cable runs in the cabinet will be in the side panel areas of the cabinet. Vertical cable runs will be strapped every 12 inches. Cable straps must encircle all the cables in a given bundle.

4.4.9. An installed cable is any cable that is run through a conduit, run from one area in a building to another area, any cable that travels farther than the adjacent equipment cabinet in a series of cabinets. Note: Equipment cabinets must be abutting without side panels to open connection to be considered adjacent.

4.5. **Network Architecture**

The new network switch to be provided will be 100% compatible with the existing network switches in support of the Collins Bay CCTV system.

The contractor is responsible to ensure the new switching infrastructure is fully integrated into the FAAS and PIU alarm and display systems.

4.6. **Inter-Building Fibre Optic Cabling**

The CCTV switching infrastructure will utilize existing on-site Fibre cabling connections between buildings and/or switches with OM3 50 micron fibre.

4.7. **Integration**

4.7.1. The contractor must integrate all hardware provided into the existing Genetec VMS, providing additional licensing where necessary. The contractor must integrate alarms for the VMS into the PIU (Perimeter Integration Unit). The contractor must program the maps displays into the FAAS display of the Senstar 100 PIU. The PIU will provide live status, and alarm annunciation of the following system alarms:

- 4.7.1.1. Remote switch failure (all switches connected to the CCTV network)
- 4.7.1.2. Network link loss (all nodes)
- 4.7.1.3. UPS failure (all UPS units in all equipment cabinets)
- 4.7.1.4. UPS AC loss (all UPS units in all equipment cabinets)
- 4.7.1.5. Camera failure
- 4.7.1.6. Camera video loss

4.8. Cameras

The contractor will provide and install 4 types of cameras as detailed below.

- 4.8.1. Type 1 – A type 1 camera will meet all the specifications detailed in ES/STD-0232 Electronics Engineering Specification – Fixed Network Colour Dome Camera as detailed in Appendix F of this STR. A Type 1 camera will have an integrated 3.3-12 mm lens, providing a 82°-24° FOV. The camera will support “corridor view”. The camera will support remote zoom and focus control. The camera enclosure will be equipped with a ¾” threaded conduit port.
- 4.8.2. Type 2 – A type 2 camera will meet all the specifications detailed in ES/STD-0232 Electronics Engineering Specification – Fixed Network Colour Dome Camera as detailed in Appendix F of this STR. A Type 2 camera will have an integrated 2.5-6 mm, 105°-49° FOV. The camera will support “corridor view”. The camera will support remote zoom and focus control. The camera enclosure will be equipped with a ¾” threaded conduit port.
- 4.8.3. Type 3 – A type 3 camera will meet all the specifications detailed in ES/STD-0232 Electronics Engineering Specification – Fixed Network Colour Dome Camera as detailed in Appendix F of this STR. Except for the following operating specifications.
 - 4.8.3.1. A Type 3 camera will have an integrated 1.6 mm, 134°(H) FOV.
 - 4.8.3.2. Operating temperature 0 °C to 45 °C (32 °F to 113 °F).
- 4.8.4. Type 4 – A type 4 camera will meet all the specifications detailed in ST0233R2E Indoor No-Grip Corner Mount Network Colour Camera as detailed in Appendix F of this STR.

4.9. Network Video User Station

The contractor must provide 4 new NVUS (Network Video User Stations) Clients. 2 type 1 clients, 1 type 2 client and 1 type 3 client as described below. NVUS Clients must be located in the areas identified in Appendix C of this document.

4.9.1. Client Types 1, 2 & 3 will meet or exceed the following specifications as a minimum:

- 4.9.1.1. EIA-310 Compliant rack mount chassis
- 4.9.1.2. Maximum 2RU space
- 4.9.1.3. 8GB DDR3 RAM memory
- 4.9.1.4. 256GB SATA 3 6Gb/s solid state hard drive
- 4.9.1.5. Dual DVI output or DVI/HDMI video card with 1GB RAM memory and DirectX 9.0 support.
- 4.9.1.6. Intel i7 quad core 3.4 GHz processor with 8MB cache memory.
- 4.9.1.7. 10/100/1000 Ethernet Network Interface Card

4.9.2. Type 1 NVUS client – Static Operational Display:

- 4.9.2.1. The provided NVUS will display a maximum of 12 images on two monitors. The monitors will be fed video signal directly from the associated NVUS or via a video extension device.
- 4.9.2.2. The operator will not have any access or control over the display of the NVUS.
- 4.9.2.3. Upon power interruption and restoration the NVUS will re-boot to the VMS application and restore the CCTV views designated for each monitor.
- 4.9.2.4. No video extraction will be possible from a Type 1 NVUS.

4.9.3. Type 2 NVUS client – Dynamic Operational Display:

- 4.9.3.1. The provided NVUS will display up to 8 images on two monitors or a maximum of 9 images on a single monitor. The monitors will be fed video signal directly from the associated NVUS or via a video extension device.
- 4.9.3.2. The provided NVUS may require a mouse for PTZ control and/or display change or switching on/off of display of specific images on the monitor as defined in the **Monitors and Associated NVUS Clients**” section in Annex C of this document.
- 4.9.3.3. All provided mouse devices will be USB wired directly to the NVUS or via a USB extension device.
- 4.9.3.4. The provided NVUS will display only live images. No playback or video extraction will be possible from an operator display NVUS.

4.9.4. Type 3 NVUS client – Advanced Operator / V&C Display:

- 4.9.4.1. The provided NVUS will display up to 8 images on two monitors or a maximum of 9 images on a single monitor. The monitors will be fed video signal directly from the associated NVUS or via a video extension device.
- 4.9.4.2. The provided NVUS will be equipped with a mouse for PTZ control and/or display change or switching on/off of display of specific images on the monitor as defined in the **Monitors and Associated NVUS Clients**” section in Annex C of this document. All provided mouse devices will be USB wired directly to the NVUS or via a USB extension device.
- 4.9.4.3. The provided NVUS will display live images and recorded video from cameras assigned to this client for up to 24hours.
- 4.9.4.4. No video extraction will be possible from a Type 3 NVUS.

4.10. Monitors

- 4.10.1. The monitors provided must meet the environmental, power, mechanical and technical requirements for the monitors as specified in ES/STD-0227, except where specified differently in this document.

4.10.2. Monitors type 1 provided will meet the following criteria:

- 4.10.2.1. 27” diagonal LED display
- 4.10.2.2. Have a minimum resolution of: 1920x1080
- 4.10.2.3. Aspect Ratio: 16:9
- 4.10.2.4. Response Time: 5ms or better
- 4.10.2.5. Contrast Ratio: 1000:1
- 4.10.2.6. Input Connectors: Display Port or HDMI
- 4.10.2.7. 170° / 160° Viewing Angle (Horizontal / Vertical) or better
- 4.10.2.8. VESA compliant mount
- 4.10.2.9. Internal power supply

4.10.3. Monitors type 2 provided will meet the following criteria:

- 4.10.3.1. 22” diagonal LED display
- 4.10.3.2. Have a minimum resolution of: 1920x1080
- 4.10.3.3. Aspect Ratio: 16:9
- 4.10.3.4. Response Time: 5ms or better
- 4.10.3.5. Contrast Ratio: 1000:1
- 4.10.3.6. Input Connectors: Display Port or HDMI

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- 4.10.3.7. 170° / 160° Viewing Angle (Horizontal / Vertical) or better
 - 4.10.3.8. VESA compliant mount
 - 4.10.3.9. Internal power supply

4.11. **Expandability**

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

4.12. **Finishing**

- 4.12.1. Where walls are cut, opened or damaged the contractor must repair the wall to its original appearance, including taping, sanding and colour matching existing paint.
- 4.12.2. Where the contractor must use wire mold or expose conduit in office areas or other work areas the contractor must paint the exposed conduit to colour match the office where it is installed.

5. ADDITIONAL REQUIREMENTS

5.1. Maintenance, Training and Certification

The contractor must prepare and present a minimum two-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. 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. The course syllabus will be presented to the project authority for approval no later than 30 days after approval of the FDR. 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(institution), printed name of attendee, signature of attendee, and attendees comments on training.

The contractor is responsible to ensure that CSC maintenance technicians receive training to be able to provide 1st level monitoring equipment for all new switching infrastructures.

In the event of any failure of equipment under this STR, including the network switching infrastructure, the contractor is responsible for immediate resolution for resumption of full system operation. This will include provision of a three year warranty.

5.2. Manuals

The contractor must provide the operator and technical manuals in accordance with the specification ES/SOW-0101 Statement of Work. The contractor must provide two printed copies of the operator manual in English, and two printed copies of the maintenance manual in English to the site. The contractor must provide one copy of the operator manual in English and one copy of the maintenance manual in English in an electronic format to each of following: the Design Authority, the Regional Electronics Officer (RTO), the local CSC Authorized Service Contractor workshop, and the CSC Authorized Service Contractor Headquarters. Maintenance manuals must all include completed Acceptance Test Program (ATP) forms and completed training sign-in sheets. All manuals are to be delivered in electronic format CD, DVD or USB flash drive. All manuals are to have an interactive index that will link the table of contents to documents within the manual. All documents within the manual are to be presented in Adobe Acrobat PDF format.

5.3. As-Built Drawings

The contractor must provide as-built drawings of the site installation in AutoCAD 2000 format and in accordance with specification ES/SOW-0101 Statement of Work. The contractor must provide two copies of the as-built drawings to the site, one to the Design Authority, one to the RTO, one to the local CSC Authorized Service Contractor workshop, and one to the CSC Authorized Service Contractor Headquarters.

As-Built drawings will include as a minimum.

5.3.1.A Logical diagram of the upgraded CCTV system differentiating between existing equipment and new equipment provided in this project.

5.3.2.A Physical diagram of the installation based on CSC provided Auto-CAD floor plans of buildings. Showing locations of equipment cabinets, devices, conduit, cable trays and

junction boxes.

5.3.3. Installation Tables Including:

- 5.3.3.1. Network Switch Port Assignment
 - 5.3.3.1.1. Switch, Model, Location, Port, Assignment
- 5.3.3.2. Camera details
 - 5.3.3.2.1. Camera, Designation, Model, Lens, IP Address, Switch
- 5.3.3.3. PoE Power Assignment
- 5.3.3.4. NVUS Details
 - 5.3.3.4.1. User Station, Location, CPU, Serial #, IP Address, Monitors, Switch, Port
- 5.3.3.5. Monitor Assignment
 - 5.3.3.5.1. Make & Model, Assignment, Camera Assignment, Serial Number
- 5.3.3.6. UPS Details
 - 5.3.3.6.1. Make & Model, Location, Serial Number, Battery type and quantity
- 5.3.3.7. CAT6 Patch Panel Assignment
 - 5.3.3.7.1. Location, Port, Assignment

5.4. **Software**

The contractor must provide CD copies of any system software in accordance with specification ES/SOW-0101 Statement of Work. The contractor must provide two copies of the software to the site, one to the Design Authority, one to the RTO, one to the local CSC Authorized Service Contractor workshop, and one to the CSC Authorized Service Contractor Headquarters.

5.5. **Testing**

- 5.5.1 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 start of installation of the CCTV equipment and system.
- 5.5.2 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.
- 5.5.3 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.
- 5.5.4 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.
- 5.5.5 Testing may be carried out by the DA, a designated representative or a third party contractor.
- 5.5.6 The DA may repeat all of the ATP tests done by the contractor or a percentage of them. If the project authority determines that an unacceptable level of tests have failed during the ATP, the project authority may halt the testing procedures for a minimum of 2 weeks. The Project Authority and the contractor will re-convene in a minimum of 2 weeks to continue

testing. The 2 week minimum window may be decreased solely at the projects authority's discretion and with the agreement of the contractor.

- 5.5.7 If the DA during the ATP testing finds a minor deficiency that does not affect the operational effectiveness of the CCTV 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 CCTV equipment or system; the testing must cease until the deficiency has been corrected.
- 5.5.8 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.
- 5.5.9 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.
- 5.5.10 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.
- 5.5.11 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.
- 5.5.12 The equipment warranty period will start on the date the system is formally accepted.

5.6 **Operational Down-Time**

Equipment and systems operational down time must be kept to a minimum. All scheduled down time will be approved in writing by the project design authority or designate. All approved down time will be coordinated with the Correctional Manager Operations (CMO) on site. 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.

5.7 **Institutional Operations**

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.

5.8 **Institution Addresses**

Collins Bay Institution
Highway 30 & CTY Rd 29
P.O. Box 760
Kingston, Ontario, K0L 1L0

Project Authority:

Daniel Smith
Chief Electronic Systems Maintenance
443 Union Street / PO Box 1174
Kingston, ON. K7L 4Y8

Tel. (613) 536-4746
Fax (613) 545-8861
Email Daniel.Smith@csc-scc.gc.ca

Institutional Contact:

Tim Slater
Chief of Facilities Management
Collins Bay Institution
1455 Bath Road
P.O. Box 190
Kingston, Ontario, K7L 4V9

Tel. (613) 545-8598
Fax (613) 536-3497
Email Timothy.Slater@csc-scc.gc.ca

Institutional Electronics Maintenance Contractor:

ADGA Group
N. George/S. Williams
Collins Bay Institution
1455 Bath Road
P.O. Box 190
Kingston, Ontario, K7L 4V9

Tel. (613) 634-6163
Email 460@csc.adga.ca

5.9 **Security**

The Contractor must submit completed CPIC forms for all staff who will be working at the Institution. The CPIC forms must be submitted to the Chief Electronics Systems Maintenance (CESM), ten (10) working days prior to the start-up date.

5.10 **Safety**

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

5.11 **Spares**

A complete list of all spares, make, model, quantity and serial numbers will be confirmed and signed off by the project authority upon delivery. An electronic version of the list will also be provided which will also include project number; cost and warranty information. Spares will be delivered directly to the ADGA electronic maintenance workshop at Collins Bay Institution within two weeks of the start of equipment installation. The contractor may only remove delivered spare equipment to replace a defective component during installation with the expressed written consent of the project authority. Details of spares to be provided are listed in Appendix C of this document.

5.12 **Communication Responsibility**

The contractor is responsible for briefing institution staff prior to leaving the work site for the day. The briefing must be given to CPM, or designate and must include, as a minimum:

- a) Work performed that day
- b) Operation status of the system, including any limitations in functionality or peculiarities
- c) Contact name and number in the event of a system failure
- d) Emergency contact numbers of installation technicians

5.13 **Design Change Procedure**

The contractor must address all requests for change or deviation from this STR with the Project Authority before any on site discussions, to ensure all changes are consistent with National Policy and Technical Standards, and to ensure the crown maintains a complete awareness of the project expectations and time-line.