



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Travaux publics et Services gouvernementaux
Canada
Place Bonaventure, portail Sud-Est
800, rue de La Gauchetière Ouest
7^{ème} étage
Montréal
Québec
H5A 1L6

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

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

Issuing Office - Bureau de distribution
Travaux publics et Services gouvernementaux Canada
Place Bonaventure, portail Sud-Est
800, rue de La Gauchetière Ouest
7^{ème} étage
Montréal
Québec
H5A 1L6

Title - Sujet cuisine de finition, étab. arch.	
Solicitation No. - N° de l'invitation EF236-171365/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client R.067720.800	Date 2016-11-15
GETS Reference No. - N° de référence de SEAG PW-\$MTC-255-14076	
File No. - N° de dossier MTC-6-39190 (255)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-11-23	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Desforges, Julie	Buyer Id - Id de l'acheteur mtc255
Telephone No. - N° de téléphone (514) 496-3413 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

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

Solicitation No. - N° de l'invitation
EF236-171365/A

Amd. No. - N° de la modif.
005

Buyer ID - Id de l'acheteur
mtc255

Client Ref. No. - N° de réf. du client
R.067720.800

File No. - N° du dossier
MTC-6-39190

CCC No./N° CCC - FMS No./N° VME

THE INVITATION TO TENDER IS MODIFIED AS MENTIONED BELOW:

Addendum 5

Closing date for the above mentioned project has been postponed until November 23, 2016, 2:00pm.

Please find enclosed herewith the above-mentioned addendum which forms part of the tender documents.

Questions and answers related to this invitation to tender:

Question 7:

In specifications, Section 21 05 01, Art. 3.3, it is mentioned to clean the air ducts. Is it the new ducts, the existing ducts or both?

Answer 7:

The requirements of this section apply to new ducts only.

Question 8:

Section 06 40 00 point 2.3.2.4 and 3.2.5. I wonder about these 2 clauses in relation to the separators and the shelves of the "boots locker". Is it conceivable to completely weld and polish each of the junctions of these components? First, it will be extremely long and costly and secondly, the excessive heat will cause the material to be distorted.

Answer 8:

As per plans and specs. These specifications are similar to what is required for all of the kitchen stainless steel furniture.

Question 9:

I would like to know the number of the acoustic tile that you wish to install in the kitchen of the Archambault establishment.

Answer 9:

A product name/number will not be transmitted. The General Contractor is responsible for providing products meeting the specifications

Question 10:

We would like to know if the Trusscore panels is accepted for PVC wall panels.

Answer 10:

Specifications of section 09 65 16 - PVC wall panels are generic and do not contain product name. The General Contractor is responsible for providing products that meet the specifications. However, the proposed product does not meet the specifications for the following reasons: type of proposed corrugated panel; fixed mechanically; individual thickness of the PVC surfaces of the panel not indicated; treatment of joints (hot welding requested and not surface moldings and/or silicone seal) does not meet the specifications.

All other terms, clauses and conditions remain unchanged.

Archambault Institution – Finishing Kitchen

Saint-Anne-des-Plaines, QC

PUBLIC WORKS AND GOUVERNMENT SERVICES CANADA : R.067720.800
CORRECTIONNAL SERVICE CANADA : 550-2-341-3403

ADDENDUM NO.5

ISSUE DATE : 2016-11-10

	DOCUMENTS LIST – ADDENDUM NO.5	
Document Name	Title and Description	# of page
A4	Addendum no.4 – Architecture dated 2016-11-10	1 page
SA-3	Addendum - Food Services no.3 dated 2016-11-04	1 page
PMA-3	Addendum Pageau Morel no.3 dated 2016-11-08	1 page
SE-01	Addenda Security no.1	
	<u>REPLACE</u> the following section (complete section) :	
	27 05 14A – Wire and Cables for security system	7 pages
	<u>ADD</u> the following section :	
	28 23 00 – Video surveillance	12 pages
	<u>REPLACE</u> the following drawings :	
	SE01 – Système de sécurité – Implantation / Security system – Layout dated November 10, 2016	1 sheet
	SE02 – Système de sécurité – Implantation / Security system – Layout dated November 10, 2016	1 sheet
	SE03 – Système de sécurité – Démolition / Security system – Demolition dated November 10, 2016	1 sheet

END

Date : NOVEMBER 10 , 2016
Project : R.067720.800 –Archambault Institution – Finishing Kitchen
Project n° : CSC 550-02-341-3403 / DFS 4993

1. SPECIFICATIONS

1.1. N/A

2. DRAWINGS

2.1. PLAN SHEET A13/16

2.1.1.Detail 1, **MODIFY** note related to wood sleepers as follow: "DORMANT DE BOIS / WOOD SLEEPER"

2.2. PLAN SHEET I-01/20 – Food Service

2.2.1.In the Equipment List, Item E604, **MODIFY** identification as follow : "Dilueur de savon (hors contrat) / Soap Dilutor (not in contract)"



END OF ADDENDUM N°A4

ADDENDUM #SA-3	
Project name: Archambault Institution Finishing kitchen	File no: 15-19
Section: 11 40 10 (Division 11) Standard equipment	Date: 2016 11 04

This addendum is part of the original plans and specifications and should be an integral part of the contractual documents. The cost of the work done by this addendum must be included in the amount of the tender.

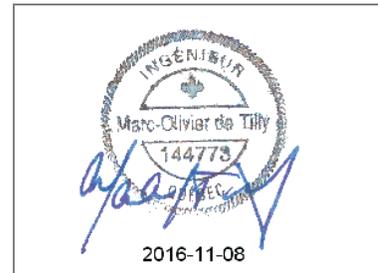
Included to this addendum: 1 page of text

#S406 HOT AND COLD BULK FOOD CART

Add as following, the accessories for this unit:

- Supply and install a carceral device system « Security Package for Prisoners ».

ADDENDUM PAGEAU MOREL NO. 3



Mechanical

1 GENERAL

- 1.1 This addendum is part of and shall be read jointly with the tender documents. In the case of contradiction, this document has precedence.

2 SCOPE

- 2.1 Clarification to specifications.

3 ELECTROMECHANICAL DESCRIPTION

3.1 Specification

3.1.1 Section 25 05 01 « EMCS: General Requirements »

- .1 Article 2.3.1 is modified as follow:

- .1 *Existing building automation system is managed by Regulvar. Ensure direct compatibility of all new components with the existing system. Install digital controllers to be fully compatible on all aspects, and without integrator or any other hardware or software interface with existing digital controllers brand (DELTA).*

3.1.2 Section 25 30 02 « EMCS: Field Control Devices »

- .1 Article 2.10 is abrogated.

3.2 MECHANICAL Drawings

- 3.2.1 No revision of the drawings.

3.3 ELECTRICAL Drawings

- 3.3.1 Not applicable.

PART 1 - BACKGROUND

- 1.1 **Related sections**
- .1 Section 01 74 19 - Construction/Demolition Waste Management And Removal.
 - .2 Section 26 05 34 - Conduits, Fittings and Conduit Connectors as regards conduits.
- 1.2 **Reference Documents**
- .1 Correctional Service of Canada – Department of Technical Services – Electronic Systems
 - .1 SE/ET-0101 Electronic Engineering Statement of Work – Purchase and Installation of Electronic Security Systems.
 - .2 SE/ET-0102 Electronic Engineering Statement of Work – Quality Control of Electronic Security System Purchase and Installation Actions.
- 1.3 **Reference Standards**
- .1 Canadian Standards Association (CSA)/CSA International.
 - .2 EIA-310-D Electronic Industry Association Standard for Racks, Panels and Associated Equipment.
 - .3 Underwriters' Laboratories (UL)
 - .1 UL 294-2009, Access Control System Units.
 - .2 UL 1076-2005, Safety for Proprietary Burglar Alarm Units and Systems.
 - .4 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S316-14 Standard for Performance of Video Surveillance Systems.
- 1.4 **Definitions**
- .1 UPS Uninterruptible Power Supply
 - .2 CSA Canadian Standards Association
 - .3 EIA Electronic Industries Association
 - .4 CSC Correctional Service of Canada
- 1.5 **Performance Requirements**
- .1 All wiring, cable and connectors shall be labelled at both (2) ends and shall carry the same number in printed characters at both ends using a permanent marking method that is water, solvent, and oil-resistant.
 - .2 Conductors that supply power to equipment shall not be subject to loads in excess of 80% their rating.
 - .3 No cable that is inferior to the manufacturer's recommendations shall be used.
 - .4 Based on the location of the cable, no cable shall be below the requirements of Schedule 19 of the Québec Construction Code, Chapter V - Electricity.

-
- 1.6 Documents/Samples to be Submitted
- .1 Documentation Specifications
 - .1 All final supporting documentation supplied regarding cable shall be accompanied by a relevant waiver of copyright.
 - .2 Documentation shall comply with the requirements of Statement of Work SE/ET-0101.
 - .2 Preliminary Design:
 - .1 The reference preliminary design plan shall be drawn up subsequent to the review and approval of the Preliminary Design Report (PDR) by the head of design or his or her representative. This plan will include specifications, drawings, and the approved PDR.
 - .2 Contractor shall prepare and submit two (2) copies of the PDR to the head of design and one (1) copy to the contracting authority at least ten (10) days prior to the PDR review meeting. The PDR shall include:
 - .1 Performance specifications, including the flow diagrams for the proposed system. The technical analysis and data on the performance of the equipment shall facilitate confirmation of the system's specifications;
 - .2 Preliminary equipment drawings, including control panels and hardware racks;
 - .3 The list of standard equipment including the part number, model number, manufacturer's name and the quantity of each item;
 - .4 The list of custom-built equipment, including the model and the quantity of each item;
 - .5 The flow diagrams for all custom-built equipment;
 - .6 The design drawings for all custom-built equipment;
 - .7 The proposed product insurance plan;
 - .8 The proposed maintenance plan;
 - .9 The proposed spare parts provisioning plan;
 - .10 The proposed training plan;
 - .3 Preliminary design review:
 - .1 The Contractor shall be responsible for organising the meeting to review the contents of the PDR. The Contractor shall provide the space for the meeting as well as all necessary facilities. The head of design shall identify any part of the PDR that does not comply with CSC requirements.
 - .4 Final Design:
 - .1 The final reference design plan shall be drawn up subsequent to the review and approval of the Final Design Report (FDR) by the head of design. It will serve as the basis for the control of all changes made to the design and performance of the equipment. The FDR shall include:
 - .1 All the information included in the reference preliminary design

- plan;
- .2 Models of the control panel, ergonomic considerations, etc. as needed;
- .3 Drawings and operational descriptions for custom-built equipment, including interface specifications;
- .4 Installation diagrams and instructions;
- .5 Model and updated availability analysis based on the final design of the system and the selected hardware.

- .2 The FDR shall be drawn up in accordance with recommended industry standards. Two (2) copies of the FDR shall be submitted to the head of design at least ten (10) days prior to the FDR Review Meeting.

.5 Final Design Review:

- .1 A meeting to examine the contents of the FDR shall be held. The Contractor shall provide the space for the meeting as well as all necessary facilities. All contractor staff responsible for the engineering design of the system/hardware shall be available to attend the review.

1.7 Warranty

- .1 The warranty shall cover all equipment and shall include the costs of labour as well as the equipment and supplies needed for the following services:
 - .1 Replacement and repair of defective parts;
 - .2 Technical support for any additions.
- .2 During the warranty period, should one or more devices associated with the different systems break down, service personnel shall be reachable 24 hours a day/7 days a week. Said service personnel shall travel to the site and locate the source of the problem within 4 hours of receiving the service request; they shall then repair the problem as soon as practicable in order to keep disruption of Client's operations or of the level of system security to a minimum.
- .3 Contractor shall keep the necessary quantity of spare parts in inventory to comply with the specified requirements.
- .4 If a manufacturer offers a warranty on an equipment item for a period of time that is longer than that specified in the General Terms and Conditions, Contractor shall transfer such warranty to the system's end-user.
- .5 The warranty shall not be less than one year from the date of acceptance of the work.

PART 2 - PRODUCTS

- 2.1 Supplies/Equipment
- .1 Outdoor conduits shall be included in the contract unless otherwise indicated on the drawings.
 - .2 Indoor conduits shall be included in the contract unless otherwise indicated on the drawings.
 - .3 120-volt AC electricity distribution between the electrical panel and the junction box or the plug contact shall be included in the contract.
 - .4 120-volt AC electricity distribution between the safety devices and the junction box or the plug contact shall be included in the contract.
 - .5 NETWORK CABLING
 - .1 The GIGABIT ETHERNET standard shall be applied;
 - .2 Series TIA/EIA-568 Category 6 requirements shall be met (568A or 568B, to be determined);
 - .3 4 twisted pairs, minimum 24 AWG;
 - .4 Factory made for any length less of than 6 meters;
 - .5 Suitable length (avoid excessively-long cables);
 - .6 Cable meeting CSA FT6;
 - .7 Resistant to wet conditions when installed outdoors in buried conduits.
 - .6 *MULTIMODE OPTICAL FIBER CABLE*
 - .1 *Provide an optical fiber cable between the N block and the video surveillance cabinet. The conduits for the fiber will be provided by Electrical.*
 - .2 Twelve (12) fiber optic cable.
 - .3 OFNR indication (Optical Fiber, Non Conductive, Riser) and CSA FT-4.
 - .4 Multimode (OM3), core of 50 microns
 - .5 Operation Wavelength 850 / 1300nm.
 - .6 Operating Temperature -40 to 70 degrees Celsius.
 - .7 The label of the optical fiber cables should display the destination of the cable and the number of fibers.
 - .8 The optical fiber cable must be of the series FREEDM One 12 f OM3 Tight buffer Corning or an approved equivalent.
 - .7 *MULTIMODE OPTICAL FIBER PATCH CORD*
 - .1 Supply cords for connection between the optical splitter and the network switch.
 - .2 Multimode (OM3), core of 50 microns
 - .3 Two optical fibers.
 - .4 Length, as required for the connection between the optical splitter and the network switch.
 - .5 Factory built.

- .6 Compatible with the optical fiber cable.
- .7 SC-LC connectors.
- .8 The optical fiber patch cord must be from the same manufacturer that the optical fiber.

- .8 LOW VOLTAGE SUPPLY CABLE (24 volts and lower)
 - .1 Safety interlock, electromagnet and similar equipment shall be used
 - .2 1 pair copper multistrand AWG 16 cable (increase gauge based on voltage drop and usage);
 - .3 Resistant to wet conditions when installed outdoors in buried conduits.
 - .4 Cable meeting CSA FT4.

- .9 POWER SUPPLY CABLE (120 volts)
 - .1 For use in the power supply unit, controllers and similar equipment;
 - .2 1 pair minimum AWG 12 copper cable with green insulated grounding cable (increase gauge based on voltage drop and power consumption);
 - .3 To be installed in a conduit;
 - .4 Cable meeting CSA FT4.
 - .5 Resistant to wet conditions when installed outdoors in buried conduits.

- .10 SUPERVISION WIRING
 - .1 Scope of application: supervision posts and related equipment;
 - .2 2 pairs of minimum AWG 22 cable (increase gauge based on voltage drop and power consumption);
 - .3 Cable meeting CSA FT4;
 - .4 Resistant to wet conditions when installed outdoors in buried conduits.

- .11 COMMUNICATIONS WIRING
 - .1 Designed for RS-485 signals and similar devices;
 - .2 2 pairs twisted shielded minimum AWG 16 cable (increase gauge based on voltage drop and power consumption);
 - .3 Cable meeting CSA FT4;
 - .4 Resistant to wet conditions when installed outdoors in buried conduits.

- .12 NETWORK CONNECTOR
 - .1 Comply with Client's standard (568A or 568B, to be determined)
 - .2 Model appropriate for the selected network cable;
 - .3 Meet 1000BASE-T connection requirements.

- .13 WIRE-TO-WIRE CONNECTOR
 - .1 Compression type;
 - .2 With anti-corrosion and anti-humidity silicagel.

- .14 WIRE-TO-SCREW CONNECTOR

- .1 Prong or ring type;
- .2 Size appropriate for the screws and the gauge of the conductors.

.15 FITTING OUT OF THE SECURITY EQUIPMENT ROOM

- .1 Provide sleeves for joining the boxes together (no exposed wiring between equipment housings);
- .2 Provide VELCRO fasteners to bundle cables together inside the equipment housings;
- .3 Submit floor space requirement dimension drawings before starting work.

PART 3 - IMPLEMENTATION

- 3.1 Manufacturer's instructions .1 Compliance: Comply with manufacturer's written requirements, recommendations and specifications, including available technical bulletins, instructions indicated in the product catalogue, instructions printed on product packaging and the information contained in data sheets.
- 3.2 Installation of the integrated security system .1 WIRING
- .1 Crimp cable using a tool designed for this purpose (no knives);
 - .2 Wiring shall be routed through hallways and follow the axes of the building (no diagonal shortcuts);
 - .3 All wiring shall be installed in conduits secured to the structure;
 - .4 Cables shall be bundled;
 - .5 Provide cable protectors when passing through housings or electrical boxes;
 - .6 Pull cable so as not to damage or degrade performance. In addition, cable shall be kept away from any sources that could impact signal quality.
 - .7 Splicing of cable is prohibited.
 - .8 Avoid antenna effects when cable is not connected at one end. Provide grounding in accordance with manufacturers' requirements.
 - .9 *Optical fibre testing :*
 - .1 *OTDR measurement :*
 - (a) *The attenuation measure must be perform unidirectional or bidirectional depending on the situation, using an optical reflectometer (OTDR)*
 - (b) *The spectral width of the transmitter must be ≤ 10 nm. Using a launch fiber of 1 km to the ends if required.*
 - (i) *These measurements are made at the wavelength corresponding to the operating spectrum is 850 nm and 1300 nm for multimode.*
 - (ii) *Provided a compliance report with the following results:*
 - (a) *Attenuation end to end (in dB).*
 - (b) *Attenuation of each connector and each fusion on the fiber network (in dB)*

(c) *a full track of attenuation as a function of the distance showing the total length of the measured segment provided by the OTDR (graphically)*

.2 CONDUIT

- .1 *The Contractor shall identify all new conduits containing the cables, except in areas accessible to prisoners, using prominent labels containing indications GREEN VIF. It must affix labels to the ends of each conduit, both sides of the wall that passes through the conduit and to points located every 3.5 m along the conduits.*
- .2 *The conduits containing the copper cables should be marked « ATTENTION – CÂBLE DU SYSTÈME DE SÉCURITÉ ». The conduits containing the optical fiber should be marked « ATTENTION – CÂBLE À FIBRES OPTIQUES DU SYSTÈME DE SÉCURITÉ ».*
- .3 *The cable installation must comply with the latest version of the TIA-569 standard (Commercial Building Standard for Telecommunications Pathways and Spaces).*
- .4 *If a pull box is needed, the model of the box should meet the standards of electrical installations governing the particular use of cable type in question (fiber optic or CAT 6). The cover must be sealed with a tamper proof screws at all locations, regardless of the status of the installation, to preserve the integrity of the security system.*
- .5 *All pull boxes containing optical fiber cables should be marked « ATTENTION – CÂBLE À FIBRES OPTIQUES DU SYSTÈME DE SÉCURITÉ ».*

Opti

.3 CONNECTOR (ALL TYPES)

- .1 *Connect cable using a tool designed for this purpose (no pliers);*

.4 FITTING OUT OF THE SATELLITE SECURITY EQUIPMENT ROOMS

- .1 *Do not overlap 120-volt sources with low voltage;*
- .2 *Optimise available space and make provision for future expansion.*

END OF SECTION

PART 1 - GENERAL

- 1.1 Related sections
- .1 Section 01 74 19 – Management and elimination of construction/ demolition waste.
 - .2 Section 27 05 14A – Wiring and cables – For security systems.
 - .3 Section 26 05 34 – Conduits, fixtures and conduit connections, for conduits.
- 1.2 Reference documents
- .1 Correctional Service Canada – Technical Services Branch – Electronic Systems:
 - .1 SE/ET-0101 Statement of Electronic Engineering Work – Procurement and Installation of Electronic Security Systems.
 - .2 SE/ET-0102 Statement of Electronic Engineering Work – Quality control of supply and installation operations for electronic security systems.
 - .3 SE/NE-0232 Electronic standards – Networked outdoor colour camera under dome, closed-circuit television system.
- 1.3 Reference standards
- .1 Canadian Standards Association (CSA)/CSA International
 - .2 EIA-310-D Electronic Industry Association Standard for Racks, Panels and Associated Equipment
 - .3 Underwriters' Laboratories (UL)
 - .1 UL 294-1999, Standard for Safety for Access Control System Units.
 - .2 UL 1076-1995, Standard for Safety for Proprietary Burglar Alarm Units and Systems.
 - .4 Underwriters Laboratories Canada (ULC)
 - .1 ULC S317-1996, Installation and Classification of Closed Circuit Video Equipment (CCVC) Systems for Institutional and Commercial Security Systems.
- 1.4 Definitions
- .1 CCTV: Closed Circuit Television.
 - .2 CCD: Charge Coupled Device.
 - .3 CSA: Canadian Standards Association.
 - .4 FOV: Field of View.
 - .5 CCCS: Central command and communication station
 - .6 UCS: Unit Control Station
 - .7 ULC: Underwriters Laboratories of Canada.
- 1.5 Performance requirements
- .1 After-sales service (labour and parts) must not be for the exclusive use of the Contractor awarded the contract. Devices must be commercially available in the Joliette area and environs from other installers, at prices comparable to the competition.
 - .2 Secondary parts such as relays, timers, etc. must be solidly secured

with screws or a rail. (Use of adhesive strips is prohibited.)

- .3 The system must be modular in design, consisting of independent basic mechanical units (cabinet, chassis, cards, printed circuits, connectors, power supplies, connection terminals, etc.). Each base unit must be easy to install or disassemble. Connections between units will be made by cables with connector terminals.
- .4 System operation, maintenance and testing must be simple; the system must also be easily expandable.
- .5 Damage caused by a defective device in a system must be limited to that device and must not affect other devices in the system. The contractor must design the video surveillance system architecture to ensure continuous operation.
- .6 To electrically shield them fully from electromagnetic fields, all major metal parts (base frames, cabinets and desks) must be grounded to the buildings grounding grid. Grounds must be made in compliance with manufacturer's recommendations. All cable shielding must be grounded, but in a single point for each section unless otherwise indicated in the manufacturer's requirements.
- .7 The Contractor must take all necessary precautions to ensure proper operation of system devices within variances defined below, or consistent with variances defined by the manufacturer where these variances are more demanding. System devices must be designed to operate within the following environmental conditions:
 - .8 Environmental specifications:
 - .1 The door/barrier/grille control system must be able to operate under the following environmental conditions:
 - .1 Temperature: from 0°C to 50°C.
 - .2 Humidity: from 0% to 90%.
 - .9 Electrical specification:
 - .1 Voltage: 120V AC +/- 10%
 - .2 Frequency: 60 Hz +/-1.5%
 - .3 Transitional: up to 5 times the nominal voltage for a maximum of 100 ms. Changes in power supply or fluctuations within the aforementioned limits must not damage equipment.
 - .4 Consumption: Electrical consumption must not exceed 100 watts.
- .10 Coding of equipment and cables is planned to a standard to facilitate tracing.
 - .1 The Contractor is responsible for supply and installation of this coding.
 - .2 The Contractor must ensure that the various system

-
- subassemblies, equipment and devices are properly identified.
- .3 All wiring, cables and connectors must be identified at both (2) ends and bear the same number in printed characters at each end, using a permanent marking technique resistant to water, solvent and oil.
 - .11 Installation of stickers or labels indicating the name of the Contractor, a subcontractor or supplier must be approved by the Department's representative.
- 1.6 Documents/
samples to be
submitted
- .1 Documentation specifications
 - .1 All final support documentation supplied for the door/barrier/grille control system must be accompanied by a waiver of related copyright.
 - .2 Documentation must comply with the requirements of the statement of work document SE/AND-0101.
 - .2 Preliminary design:
 - .1 The reference preliminary design plan was developed following review and approval of the preliminary design report (PDR) by the head of design or his representative. This plan must include the specifications, drawings and approved PDR.
 - .2 The Contractor must prepare and submit two (2) copies of the PDR to the head of design and one (1) copy to the contract officer at least ten (10) days before the PDR review meeting. The PDR must include:
 - .1 The specifications on performance consisting of operating diagrams for the proposed system. The equipment technical analysis and performance data must support confirmation of system specifications;
 - .2 The preliminary equipment plans, including control consoles and equipment bays;
 - .3 The list of standard equipment, including the part number, model, manufacturer's name and quantity for each item;
 - .4 The customized equipment list, including the model and quantity for each item;
 - .5 The operating diagrams for all customized equipment;
 - .6 The conceptual drawings for all customized equipment;
 - .7 The proposed plan for product insurance;
 - .8 The proposed plan for maintenance;
 - .9 The proposed plan for supply of replacement parts;
 - .10 The proposed plan for training.
 - .3 Review of preliminary design:
 - .1 The Contractor must take responsibility for organizing the PDR content review meeting. It must provide the premises for the meeting as well as all necessary facilities. The head of design will indicate any part of the PDR that does not meet CSC requirements.
 - .4 Final design:

-
- .1 The reference final design plan will be produced following the review and approval of the final design report (FDR) by the head of design. This serves as the basis for control of changes made to the equipment design and performance. The FDR must include:
 - .1 All components included in the reference preliminary design plan;
 - .2 Models of the command console, ergonomic considerations, etc. as required;
 - .3 Operational drawings and descriptions for customized equipment, including interface specifications;
 - .4 Installation drawings and instructions;
 - .5 The updated model and availability analysis based on the final design for the system and the equipment selected.
 - .2 The FDR must be prepared in compliance with recommended commercial practices. Two (2) copies of the FDR must be submitted to the head of design at least ten (10) days before the FDR review meeting.
 - .5 Final design review:
 - .1 A meeting to review the FDR content must be held. The Contractor must provide the premises for the meeting as well as all necessary facilities. All of the Contractor's staff responsible for technical design of the system/equipment must be available.

1.7 General

- .1 The system must consist of standard equipment to the fullest extent possible. Use of new-design equipment must be limited to common interfaces, consoles or control panels or to single devices that cannot be obtained off the shelf.
- .2 The design specifically must strive to minimize the number of wires required between all system components.
- .3 Planning of the system must use a space diversity approach such that loss of one interconnection pathway does not adversely affect operation of the system as a whole.
- .4 CSC's Engineering Services Division has established technical specifications and standards that apply to equipment for specific electronic security systems, and these must meet very specific and demanding criteria for operational performance, described in the Electronic Standards. Technical acceptability of these systems means that equipment complies with application CSC specifications and standards.
- .5 The technical approval process includes an assessment of the system and subsystems in compliance with CSC specifications in one of CSC's institutions, or an assessment in a CSC institution where the effectiveness of the proposed technologies is verified when these must

be applied under restrictive operating environment conditions.

- .6 CSC must also verify in detail compliance with technical specifications applicable to the system in question. If it deems necessary, CSC may require the supplier to organize a full demonstration on site. For certain specifications, CSC will rely on the results of tests conducted by the manufacturer in an independent testing facility deemed acceptable by CSC.
- .7 It is incumbent on the supplier to submit for CSC's assessment any change made to the products. Equipment certification is an ongoing process and a supplier may request an assessment at any time. CSC specifications and standards are available to any supplier on request. Any improvement or any new product must be submitted to the technical head of CSC's Engineering Services Division within a reasonable time before any call for tenders process to allow sufficient time for assessment, which can take up to sixteen (16) months.
- .8 Any order of equipment placed before approval of the design report for the door/barrier/grille control system will be at the Contractor's risk. The head of design may authorize the purchase of certain items subject to long delivery delays at the time of the preliminary design study for the proposed system or shortly thereafter.

1.8 System description

- .1 This contract exclude any modification to the existing video management system. This contract must include the supply and installation of hardware components to integrate the future cameras planned that are not included in this project. The proposed components must been the following requirements:
 - .1 Environment:
 - .1 The video systems and components must be designed to operate in compliance with all prescribed requirements, at the ambient temperatures shown below.
 - .1 Temperature: from 0°C to 30°C.
 - .2 Humidity: from 10% to 90%.

1.9 Replacement equipment

- .1 Support specifications
 - .1 Maintenance support and replacement part plans for the door/barrier/grille control system must comply with the requirements of statement of work document SE/AND-0101.
- .2 Maintenance and replacement parts
 - .1 The Contractor must supply maintenance support and replacement part supply plans for approval by the head of design. These plans must submitted by the dates indicated on the calendar.
- .3 Maintenance plan

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- .1 The maintenance plan must describe the preventive maintenance (PM) approach, procedures and calendar, methods and response times for corrective maintenance corrective as well as the average repair time (MTTR) for all systems. The plan must recommend the tools, templates and test equipment, and must describe in detail the staff assignment method recommended for the system. The final maintenance support plan will be issued subject to approval by the head of design.
 - .4 Replacement parts supply plan
 - .1 The replacement parts supply plan must include the list of replacement parts required and the recommended quantity for each. Recommendations on quantity must be supported by analysis of availability and system reliability and by available technical results. The Contractor must identify the replacement parts and components by their manufacturer's code number and with references to the part numbers used by the equipment supplier.
 - .5 List of replacement parts
 - .1 The list of replacement parts must include the following information:
 - .1 Replacement parts and subassemblies as well as recommended quantities;
 - .2 A list of references between supplier codes and manufacturer's code numbers;
 - .3 Unit prices and prices calculated for warehousing;
 - .4 Forecast service life or annual consumption for each part.
 - .2 The Contractor maintain an up-to-date replacement parts supply plan up to the end of the warranty period and must ensure that any change resulting from design modifications is incorporated into the list of replacement parts.
- 1.10 Warranty
- .1 Warranty provided in the contract: The following conditions are added to the general conditions. In the event of a contradiction between the two conditions, the more demanding conditions shall apply.
 - .2 The warranty is applicable to all equipment devices and must include the cost of labour, equipment and materials for the following services:
 - .1 Preventive maintenance.
 - .2 Replacement and repair of defective parts.
 - .3 Technical support for any possible additions.
 - .4 Travel to the site.
 - .3 During the warranty period, in the event of breakdown of one or more devices in the various systems, it must be possible to reach service staff at all times, 24 hours a day, 7 days a week. These service staff must travel to the site and locate the breakdown within four hours following the service call, and repair the breakdown as quickly as possible, to disrupt operations of the Department's representative and facility security levels as little as possible.

- .4 The Contractor must maintain in its inventory the necessary quantity of replacement parts to comply with the requirements indicated.
- .5 Where a manufacturer provides a warranty greater than that requested in the general conditions for a piece of equipment, the Contractor must transfer that warranty to the system user.
- .6 The warranty may not be for less than one year from date of final acceptance of the work.

PART 2 - PRODUCTS

2.1 Materials/ equipment

- .1 System materials must meet the requirements in the reference document listed in section 1.2 "Reference Standard."
- .2 Conduits: compliant with section 26 05 34 – Conduits, fixtures and conduit connections.
- .3 Wiring and cable: based on manufacturer's indications, compliant with section 27 05 14A – Wiring and cable – For security systems.

2.2 System configuration

- .1 NETWORKED COLOUR CAMERA
 - .1 The supply and installation of the camera are excluded from this mandate.
 - .2 The Contractor shall provide the installation of the networking cable for the future camera.
 - .3 The Contractor shall wrap an excess of five (5) meters of cable terminated with a RJ-45 jack in the last pull box for the future camera.
- .2 NETWORK SWITCH
 - .1 The switch must have the following minimum characteristics:
 - .2 Multibroadcast.
 - .3 Service quality.
 - .4 Internet snooping and querying group management protocol.
 - .5 Port Ethernet with power (POE).
 - .6 Management of tier 2 and 3 protocols.
 - .7 External power supply with redundancy.
 - .8 Stackable switches.
 - .9 A short-circuit in a switch Ethernet port must not affect operation of the other Ethernet ports.
 - .10 Ethernet port speed configurable for 10/100/1000 Mbps.
 - .11 Port that can be redundantly connected to other switches by UTP cable.
 - .12 Switch must have a dimension of 1 U.
 - .13 Mount for mounting in a rack.
 - .1 Including SFP connectors for connection of the optical fiber.
Suggested model: AGM731F ProSafe 1000Base-SX SFP LC GBIC

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- .1
 - .2 The network switch must be the same model as the ones already in operation: GSM7228PS from the manufacturer Netgear, no equivalent model is accepted.
- .3 RJ-45 PATCH PANEL
- .1 Provide a RJ-45 patch panel for the installation in the video-surveillance cabinet for connecting network cables.
 - .2 Modular with 24 RJ-45 ports including connectors.
 - .3 Height of 1UM.
 - .4 Meets CAT 6 cable specification
 - .5 Rackmount installation.
 - .6 Connectors compatible with the connector on the equipment side.
 - .7 Port identification.
- .4 OPTICAL DISTRIBUTION FRAME
- .1 Provide an optical distribution frame in the video surveillance cabinet and inside building A. Must connect the fiber cables between the building A and the video surveillance cabinet.
 - .2 Allows connection of twelve (12) optical fibers by cable.
 - .3 Connection pads with SC connectors.
 - .4 Compatible with the optical fiber.
 - .5 Integrated cable management (excess fiber length).
 - .6 Including cassettes and patch panels.
 - .7 Rackmount installation. (Video surveillance cabinet).
 - .8 Height of one (1) UM (Video surveillance Cabinet).
 - .9 Wall installation (Building A).
 - .10 The optical distribution frame for the must be the CCH-01U (video surveillance cabinet) or the WCH-02P (Building A) with CCH-CP12 panels connections from Corning or an approved equivalent.
- .5 VIDEO SURVEILLANCE CABINET
- .1 The video surveillance cabinet for installation of optical distribution, network switch, patch panel and UPS unit.
 - .2 Wall mount.
 - .3 Capacity of 10UM.
 - .4 Depth of 22 inches.
 - .5 The housing must be ventilated with a set of 2 fans model DWR-FK22 from Middle Atlantic.
 - .6 Solid metal door.
 - .7 Industrial power bar with eight (8) 120Vac outlets with pilot light and switch.
 - .8 The Contractor shall arrange all cables to allow access and identifying them as easily as possible. The cables will all be bundled and tied with strips of Velcro.
 - .9 Cabinet model must be the DWR-PD-10-22 Middle Atlantic or approved equivalent. The fan should be the DWR-FK22 or approved equivalent.

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- .6 SECURITY EQUIPMENT CABINET
 - .1 Sized to handle all system equipment. This equipment will be installed in a housing whose minimum size shall not be less 600 mm (L) x 915 mm (H) x 200 mm (D);
 - .2 Stainless steel cabinet with watertight door that on a continuous hinge and is key locked;
 - .3 Ventilation must maintain a temperature below 30 degrees Celsius. Must be rated IP66.

 - .7 UNINTERRUPTABLE POWER SUPPLY UNIT
 - .1 Provide an uninterruptable power supply (UPS) in the video surveillance cabinet to allow a stable power supply without failure.
 - .2 UPS features :
 - .1 120Vac input/output.
 - .2 Must be powered on a 120Vac circuit generator.
 - .3 700 VA / 630 watts
 - .4 Automatic restart of loads after UPS shutdown.
 - .5 Automatic Auto-reset.
 - .6 Alarm sounder.
 - .7 Overload protections.
 - .8 Maintenance free batteries included
 - .9 Must have six (6) outlets with independent current.
 - .3 The uninterruptable power supply unit must be of the same series as those already in used, model PW9130L700T from the manufacturer Netgear, no equivalent.

PART 3 - EXECUTION

- 3.1 Summary of the work
 - .1 In this assignment, the Contractor must supply and install the networking cables for the future cameras.
 - .2 The contractor must include the addition of a network switch in the kitchen sector technical gateway to connect the future cameras. The network switch must be installed in a secured equipment cabinet and include an uninterruptable power supply that will power the network switch along with a RJ-45 patch panel and an optical distribution frame.
 - .3 The contractor must provide must provide the connection to the new switch using optical fibre to the localized switch in Building <A> room A003.
 - .4 An electrical circuit 120V a.c. 15A connected to the emergency electrical panel will be required inside the security equipment cabinet and the video surveillance cabinet at the technical room U208.
 - .5 The Contractor shall provide the cabling, conduits and corresponding electrical breakers inside the emergency panel.

- 3.2 Manufacturer's
 - .1 Compliance: comply with written manufacturer's requirements,

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- instructions recommendations and specifications, including any available technical bulletin, instructions appearing in the product catalogue, those appearing on product packaging and indications on technical fact sheets.
- 3.3 Installation
- .1 NETWORKED COLOUR CAMERA
 - .1 The Contractor shall provide for the installation of the network cable between the patch panel installed in the of video surveillance cabinet and location of the future camera.
 - .2 NETWORKED SWITCH
 - .1 Install switches and the secured equipment cabinet in the employee office.
 - .2 Connect the switch power feed to an uninterrupted power supply dedicated to integrated security system network equipment.
 - .3 The Contractor must explain to the client the network architecture it will implement, indicate all parameters that can be personalized (IP address of switches, sub-network mask, etc.) and submit templates for personalizing the available functions.
 - .4 The client will provide the parameters to the Contractor.
 - .5 The Contractor will enter the requested parameters.
 - .3 SECURITY EQUIPMENT CABINET
 - .1 Attach the cabinet to the wall using suitable anchorage to support 10 times the weight of the cabinet.
 - .2 The wiring must be disposed in cable trays.
 - .3 Provide in each cabinet a sheet containing the switch inputs and outputs.
 - .4 Individual cabinet identification.
 - .5 Permanent connection to the AC circuit (no electric plug).
 - .6 Upon short-circuit of a faulty device to the switch, it shall not affect other devices or the switch itself.
 - .7 All equipment should be installed on a plywood 4 feet x 8 feet x ¾ inches with fireproof paint.
- 3.4 On-site quality control
- .1 The door/barrier/grille control system quality assurance program must comply with requirements of statement of work document SE/AND-0101.
 - .2 All installation, as well as all test plans and acceptance tests must be performed in compliance with the requirements of statement of work document SE/AND-0101.
 - .3 System test plan.
 - .1 The plan must contain the method used for testing, the tests to be conducted, the criteria for pass/fail, the requirements for repetition of tests and the validation and approval instructions for all final reference design plan specifications. Before attending tests, the CSC representative will conduct a visual inspection and a mechanical inspection to ensure that system installation has been

performed in compliance with the requirements.

- .4 Testing procedures. These procedures must be developed such that:
 - .1 All equipment supplied meets with the performance specifications;
 - .2 Each subsystem meets the applicable performance requirements;
 - .3 The system as a whole meets the performance requirements;
 - .4 The testing procedures contain steps to follow for each test and the anticipated results.
- .5 Make the necessary arrangements for the Department's representative assigned to the project to inspect the work related to handling, installation, application, protection and cleaning of the equipment. The Department's representative will submit written reports to validate whether work has been performed in compliance with contractual requirements.
- .6 Services of the Department's representative: convene the Department's representative to make recommendations on site regarding use of the product(s) and conduct periodic inspections to determine whether commissioning has been performed in compliance with his recommendations.
- .7 Plan site inspections at the following stages:
 - .1 Once products have been delivered and stored on the site, and preparatory and other preliminary work has been completed, but prior to start of equipment installation work covered by this section.
 - .2 Twice during the progress of work, when it has reached 33 and 60 percent respectively.
 - .3 Once work and cleaning have been completed.
- .8 The Department's representative will submit inspection reports within five days of the site inspection.

3.5 Control

- .1 Conduct inspections and testing with the Department's representative present.
 - .1 Supply the necessary tools, ladders and equipment.
 - .2 Ensure that subcontractors and departmental representatives are present at the time of the inspections.
- .2 Tests must be conducted in compliance with the approved plan and procedures.
- .3 The Contractor must notify CSC at least five (5) working days prior to the start of testing.
- .4 Visual inspection: inspection to assess quality of installation and assembly as well as overall appearance of the equipment, to ensure that the system complies with the contract documents, and must focus on the following points:

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- .1 Sturdiness of equipment mounting.
 - .2 Lack of damage due to installation.
 - .3 Compliance of device locations with revised shop drawings.
 - .4 Compatibility of equipment installation with the physical environment.
 - .5 Supply of all accessories.
 - .6 Identification of devices and coding of cabling.
 - .7 Correct placement of decals indicating ULC approval.
- .5 Technical inspection: inspection to verify that all systems and devices have been correctly installed, are free of defects and damage, and must focus on the following points:
- .1 Measurement of voltage and amperage.
 - .2 Junctions/connections and equipment mounting.
 - .3 Measurement of signals and parameters, e.g. noise (dB), lighting (lux), transmission speed (baud).
 - .4 Compliance with manufacturer's installation specifications, documentation and instructions.
- .6 Operational inspection: inspection to ensure that performance of devices and systems complies with or exceeds established operating requirements, and must focus on the following points:
- .1 Operation of each device, individually and in its environment.
 - .2 Operation of each device in association with a programmable calendar and/or with specific functions.
 - .3 Demonstration of the following functions:
 - .1 Interoperability with other security systems.
- .7 The Contractor must submit the final copies of test results for review and approval by CSC within ten (10) working days of the end of testing. It must provide two (2) copies of test reports, which must include:
- .1 A summary description of the tests;
 - .2 Test results, including the test procedures conducted, which were checked by a CSC representative;
 - .3 Incident reports, including analysis of incidents and the corrective measures taken;
 - .4 Results of any tests that had to be repeated.
- 3.6 Cleaning and adjustment
- .1 Remove protective film from components.
 - .2 In compliance with manufacturer's recommendations, to remove packaging products, fingerprints and other marks.

END OF SECTION

