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1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)

Halifax
Nova Scotia
B3J 1T3

Bid Fax: (902) 496-5016

**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
Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)
Halifax
Nova Scot
B3J 1T3

Title - Sujet CCGC Mechanical and Sprinklers	
Solicitation No. - N° de l'invitation EB144-190543/A	Amendment No. - N° modif. 012
Client Reference No. - N° de référence du client EB144-19-0543	Date 2018-08-17
GETS Reference No. - N° de référence de SEAG PW-\$PWA-121-5750	
File No. - N° de dossier PWA-8-80020 (121)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-21	Time Zone Fuseau horaire Atlantic Daylight Saving Time ADT
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: Russell (PWA), Alex	Buyer Id - Id de l'acheteur pwa121
Telephone No. - N° de téléphone (902) 401-8180 ()	FAX No. - N° de FAX (902) 496-5016
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

Amendment 12 is being issued to provide additional information:

Questions and Answers:

1 - Specification-01-14-10. Page 8. Item 1.6.2.5 Louis St. Laurent Mechanical Systems Upgrades by other Contractors. Does this apply to the set of drawings tagged St. Laurent?

A1. The Louis S St Laurent building is sometimes also referred to as the Machine Shop or MET. It is a separate building and tender package from the core college campus. However, attached to Alert Building and part of this tender package is the St Laurent Building, which houses cadet residences.

2- Appendix A. Phase-1 MacKenzie (Excluding Telecom). Does this apply to all drawings tagged TELC/MCTS?

A2. Any work within Telecom (MCTS) must be scheduled as outlined in Appendix A, Constraints Issued for Tender.

3- There are various new mechanical rooms being built that have new light fixtures being installed in them. There is no fixture schedule or spec provided for these fixtures. Can one be provided as suppliers are asking. They cannot quote without one.

A3. There are various new mechanical rooms being built that have new light fixtures being installed in them. There is no fixture schedule or spec provided for these fixtures. Can one be provided as suppliers are asking. They cannot quote without one.

At Division 01 Section 01 11 00:

Delete: Article 1.3 Contract Method.

Please refer to R2710T GENERAL INSTRUCTIONS TO BIDDERS - CONSTRUCTION SERVICES - BID SECURITY REQUIREMENTS (GI) (2017-09-21).

Part 1 General

1.1 SECTION INCLUDES

- .1 Materials and installation procedures for lighting equipment.

1.2 RELATED SECTIONS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 45 00 – Quality Control
- .3 Section 01 74 11 – Cleaning
- .4 Section 01 74 21 – Construction/Demolition Waste Management and Disposal
- .5 Section 01 70 00 – Contract Closeout
- .6 Section 26 05 00 - Common Work Results – Electrical.

1.3 REFERENCES

- .1 Canadian Standards Association (CSA International)
- .2 Underwriters' Laboratories of Canada (ULC)

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver materials to site in original factory packaging, labelled with manufacturer's name, address.
- .3 Packaging Waste Management: remove for reuse and return pallets, crates, padding and packaging materials in accordance with Section 01 74 21 - Waste Management and Disposal.
- .4 Disposal and recycling of fluorescent lamps as per local regulations.

Part 2 Products

2.1 LED LUMINAIRES AND DRIVERS

- .1 High Efficiency - All Luminaries:
 - .1 Comply with IES LM-70.
 - .2 LED arrays shall be sealed, high performance, long life type; minimum 70% rated output at 50,000 hours.
 - .3 LED luminaires shall deliver a minimum of 60 lumens per watt: LED's shall be "Bin No. 1" quality.

- .4 Drivers shall be solid state and accept 120 through 347 VAC at 60 Hz input.
- .5 The LED light source shall be fully dimmable with use of compatible dimmers switch designated for low voltage loads.
- .6 LED color temperatures: to ANSI C78.377
 - .1 3500K nominal, range: 3465K +/- 245K.
- .7 Luminaires shall have internal thermal protection.
- .8 Luminaires shall not draw power in the "OFF" state. Luminaires with integral occupancy, motion, photo-controls, or individually addressable luminaires with external control and intelligence are exempt from this requirement. The power draw for such luminaires shall not exceed 0.5 watts when in the off state.
- .9 Color spatial uniformity shall be within .004 of CIE 1976 color space.
- .10 Color maintenance over rated life shall be within .007 of CIE 1976 color space.
- .11 Indoor luminaires shall have a minimum CRI of 80.
- .12 LED package(s)/module(s)/array(s) used in qualified luminaires shall deliver a minimum 70% of initial lumens, when installed in-situ, for a minimum of 50,000 hours.
- .13 Luminaires shall be fully accessible from below ceiling plane for changing drivers, power.
- .2 Power Supplies and Drivers:
 - .1 Power Factor: 0.95 or higher.
 - .2 Interference: EMI and RFI Compliant with FCC 47 CFR Part 15.
 - .3 Total Harmonic Distortion Rating: 20% maximum.
 - .4 Meet electrical and thermal conditions as described in IES LM-80 Section 5.0.
 - .5 Primary Current: Confirm primary current with Drawings.
 - .6 Secondary Current: Confirm secondary current specified by individual luminaire manufacturers.
 - .7 Compatibility: Certified by manufacturer for use with individually specified luminaire and individually specified control components.
 - .8 Solid-state control components to be integral or external per each specified luminaire. Remote control gear to be enclosed in Class 1, Class 2, or NEMA 3R enclosures as required.
- .3 Type A Fixtures – Suspended 1220mm, direct L.E.D. industrial “strip” lighting fixture c/w acrylic lens, reflector, 120-volt driver, 5500 lumens and 80 CRI, 3500°K.
- .4 Type N1 Fixtures – Same as type A except 4000 lumens.

Part 3 Execution

3.1 INSTALLATION

- .1 Locate and install luminaires as indicated.
- .2 Where light fixtures are installed in suspended T-Bar ceilings (or other removable type grid ceilings) the electrical contractor shall be required to identify locations of

light fixtures accordingly to the applicable ceiling contractor, who in turn will be responsible for supplying and installing additional hangers as may be required.

- .3 For suspended ceiling installations support luminaires from ceiling grid in accordance with local inspection requirements.
- .4 Independent support of light fixtures in T-Bar grid ceilings utilizing materials other than tie-wires, i.e. threaded rods, metal channels, etc., are the sole responsibility of the electrical contractor.
- .5 Support luminaires mounted in continuous rows twice every 4 feet or as indicated by manufacturers mounting instructions.
- .6 Where recessed downlights are installed in T-Bar ceilings the fixtures shall be securely fastened to the T-Bar ceiling. No part of the fixture is to derive support from the T-Bar ceiling tiles.
- .7 Fixtures **Noted** as suspended mounting shall be with conduit and threaded rod. **Chains not acceptable.**

3.2 WIRING

- .1 Connect luminaires to lighting circuits:
 - .1 Install flexible or rigid conduit for luminaires as indicated.

3.1 LUMINAIRE ALIGNMENT

- .1 Align luminaires mounted in continuous rows to form straight uninterrupted line.
- .2 Align luminaires mounted individually parallel or perpendicular to building grid lines.

3.2 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.
- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Waste Management and Disposal.

END