Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

**RETURN BIDS TO:**
**RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des soumissions - TPSGC**
**11 LaurierSt./ 11, rue Laurier**
**Place du Portage, Phase III**
**Core 0B2 / Noyau 0B2**
**Gatineau**
**Québec**
**K1A 0S5**
**Bid Fax: (819) 997-9776**

# SOLICITATION AMENDMENT
# MODIFICATION DE L'INVITATION

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

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

**Comments - Commentaires**

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

**Issuing Office - Bureau de distribution**

Maintenance & Professional Consulting Services Division (FK)
11 Laurier St./ 11, rue Laurier
3C2, Place du Portage, Phase III
Gatineau
Québec
K1A 0S5

| | |
|---|---|
| **Title - Sujet**<br>HVAC CONTRACT | |
| **Solicitation No. - N° de l'invitation**<br>EJ196-150923/A | **Amendment No. - N° modif.**<br>002 |
| **Client Reference No. - N° de référence du client**<br>20151923 | **Date**<br>2017-01-27 |
| **GETS Reference No. - N° de référence de SEAG**<br>PW-$$FK-280-72150 | |
| **File No. - N° de dossier**<br>fk280.EJ196-150923 | **CCC No./N° CCC - FMS No./N° VME** |
| **Solicitation Closes - L'invitation prend fin**<br>**at - à 02:00 PM**<br>**on - le 2017-01-31** | **Time Zone**<br>**Fuseau horaire**<br>Eastern Standard Time EST |
| **F.O.B. - F.A.B.**<br>**Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐ | |
| **Address Enquiries to: - Adresser toutes questions à:**<br>Grogan, Lynn | **Buyer Id - Id de l'acheteur**<br>fk280 |
| **Telephone No. - N° de téléphone**<br>(873) 469-4903 ( ) | **FAX No. - N° de FAX**<br>(819) 956-3600 |
| **Destination - of Goods, Services, and Construction:**<br>**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**<br>**Raison sociale et adresse du fournisseur/de l'entrepreneur**<br><br>**Telephone No. - N° de téléphone**<br>**Facsimile No. - N° de télécopieur** | |
| **Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)**<br>**Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)**<br><br>**Signature** **Date** | |

Canada

# Amendment 002

**1) Delete** Annex A, Statement of Work, **and Replace with attached Annex A.**

A correction in the English version of Statement of Work, Annex A on page 2 of 13.

**SW 1 General**

.1 The Contractor must furnish all necessary tools, services and labour to execute the work required for the maintenance of the equipment contained herein and must execute such work in a careful and workmanlike manner and in accordance with all related Codes, Standards and Regulations from all levels of Government (Provincial/Territorial, Municipal and Federal).

.2 To carry out the work on this requirement, Service personnel employed by the Contractor must be in possession of:

.1 **HVAC equipment** - Three (3) service personnel with:
- A valid Ozone Depletion Prevention Card for the Province of Ontario (or approved interprovincial equivalent); and
- A valid **Journeyperson (JP)** Refrigeration and Air Conditioning Certification Licence (or approved interprovincial equivalent); and
- A valid Fall Protection Certificate; and
- A valid Confined Space Entry Certificate; and
- A valid Aerial Manlift Certificate.

.2 ***Gas fired appliances*** - Three (3) service personnel with:
- A valid permanent Province of Ontario Certificate G1 (Gas Technician 1) (or approved interprovincial equivalent); and
- A valid Fall Protection Certificate; and
- A valid Confined Space Entry Certificate; and
- A valid Aerial Manlift Certificate.

***The personnel named in 'HVAC equipment' above may also be named in items* 'Gas fired appliances' and *provided they hold the required certifications of each category.***

.3 Apprentices employed by the Contractor must be fully registered in a Tradesman Program related to the services in Annex A, Statement of Work. Apprentices must work under the direction of a Journeyman Mechanic. Canada reserves the right to request proof of registration in a Tradesman Program related to the services in Annex A, Statement of Work at any time during the term of the contract.

## SW 2.1 Scope of Work - preventive maintenance / inspection

.1 General

The Contractor shall provide all required maintenance as per SW 3 and the manufacturer's recommendations, including but not limited to the items listed below, to maintain the equipment listed in SW 5, Equipment Inventory.

.2 Included in Contract

Labour for all maintenance inspections, leak testing, cleaning, lubrication; all labour and costs associated with the replacement of drive belts, filters and fuses.

.3 Performance

The Contractor shall maintain the equipment at its original performance level to provide conditions within the range required by the equipment being served by this system or as otherwise specified by the Technical Authority.

.4 Exclusions

The Contractor is not required as part of this contract to make renewals or repairs necessitated by reason of the negligent operation or misuse of the equipment by others or by reason of any other cause beyond his control except ordinary wear and tear of the equipment.

1. The contractor shall provide clear and concise rational of the events leading up to the failure.

**SW 2.2 Scope of Work (cont'd)**

.5 Extra Work

.1 The Contractor shall immediately inform the Technical Authority in writing *within 24 hours* of necessary repairs not included herein as being part of the work to be performed under the Contract. The Contractor may be called upon to effect these repairs.

2 The Contractor shall identify modifications or improvements to the equipment or system(s) that will enhance equipment serviceability, life expectancy and/or efficiency.

.3 The Contractor will calculate the cost of the repairs (SW2.2.5.1), modifications or improvements (SW2.2.5.2) based on Basis of Pricing "Pricing Schedule 2". The Contractor may be called upon to effect this work.

.6 Prove to the satisfaction of the Departmental Representative when requested, possession of complete schematic wiring diagrams, detailed adjustment procedures and detailed operational descriptions of all equipment included in this Contract.

Operational Descriptions

Prove to the satisfaction of the Technical Authority when requested, possession of complete schematic wiring diagrams, detailed adjustment procedures and detailed operational descriptions of all equipment included in this Contract.

.7 Environmental Protection

***The Contractor shall conform to all applicable environmental laws and regulations in effect including the Federal Halocarbon Regulations.***

.1 During repair or replacements the Contractor shall use closed-loop refrigerant recovery equipment to minimize Refrigerant emissions. A complete leak test on all refrigeration systems shall be performed twice during the calendar year (6 month intervals), and repairs made as required. Units shall then be tagged as leak free.

.2 The Contractor shall ensure against oil spills or damage to surfaces and roofing system by providing protection such as plywood or plastic under the equipment during service operations. In the event of an accidental spill, the Contractor shall notify the Technical Authority immediately so that remedial action can be taken.

.3 The Contractor shall not leave waste materials on site unless approved by the Technical Authority.

.4 The Contractor shall not dispose of waste or volatile materials, such as mineral spirits or paints and oil thinner into waterways, storm or sanitary sewers.

.5 The Contractor shall control the disposal of the runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

**SW 3. Service**

.1 Unless otherwise specified, all equipment shall be inspected monthly or more frequently if found necessary, to provide trouble free operation.

.1 **Gas fired appliances (Walkley Armouries)**

Shall be inspected monthly during the operating season or more frequently if found necessary, to provide trouble free operation of the equipment. Seasonal start-up and shutdown of the equipment shall be coordinated with the Technical Authority. The performance of the work required shall provide for operation of the complete system(s) based on original design or subsequent approved design modifications, and shall be as recommended by the manufacturer(s).

.1) A thorough inspection and cleaning of the boiler(s) waterside and fireside shall be performed on an annual basis and must be coordinated with the Technical Authority;
.2) An annual combustion test is to be performed on each appliance during the operating season. A copy of the combustion test report(s) shall be submitted to the Technical Authority upon completion.

**SW 3. Service (cont'd)**

.2 **Chillers (NDMC & M-23):**

The chillers must be inspected monthly or more frequently if found necessary during the operation season (May to October), to provide trouble free operation of the equipment. Winterize chiller(s) as applicable to guard against low ambient freeze-up in winter months. The performance of the work required must provide for operation of the complete system(s) based on original design or subsequent approved design modifications, and must be as recommended by the manufacturer(s).

.1) The contractor shall provide a full oil analysis report for the chiller(s), from a sample taken prior to an oil change or at the end of each cooling season within the last month of chiller operation. The reports shall include recommendations based on analysis data and manufacturer's guidelines. They are to be submitted no later than December 15th of each year, to permit any required corrective work to be performed during this off season. The contractor is responsible for disposing of used oil and oil contaminated materials.

.2) Evaporator tubes are to be inspected biannually (every second year). The tubes are to be cleaned as often as necessary to maintain proper heat transfer as per chiller's capacity. While the evaporators are open for cleaning and inspection, any leaking tubes are to be identified and repairs made accordingly. The Technical Authority shall be informed whenever tube maintenance is done and allowed to inspect the unit prior to re-closing.

.3) In the first and third year of the contract, a refrigerant sample from each chiller shall be submitted to a full chemical analysis and a detailed report submitted. A complete report shall be submitted to the Technical Authority.

.2 Scheduling

Unless otherwise directed, preventive maintenance shall be performed during regular working hours, Monday through Friday, 08:00 to16:00 hours excluding statutory holidays.

.3 Maintenance Plan

Contractor shall produce a detailed comprehensive maintenance service plan specific to the equipment inventory which must outline all tasks, procedures, all maintenance routines and frequencies to meet or exceed manufacturers' recommendations identifying the maintenance that will be performed annually, semiannually, quarterly and monthly. This maintenance plan shall contain and reflect the manufacturer's recommended maintenance and all requirements of this agreement. The proposed maintenance plan shall be reviewed by the Technical Authority and may require revision by the Contractor to meet Technical Authority's requirements. Any such changes shall be considered as part of this agreement. This plan must fully list all operating inspections, maintenance schedules and tests necessary to maximize equipment longevity and ensure the optimum level of performance over the full operating range of the equipment. The comprehensive maintenance service plan shall be submitted to the Technical Authority in the Microsoft Office Suite format (including sample inspections sheets for all routines), within 60 calendar days after award of the Contract.

The Maintenance Plan must be viewed and approved by the Technical Authority prior to acceptance and implementation.

.4 Control Systems:

Conduct periodic tests of the Control Systems where applicable, to ensure all circuits and settings are properly adjusted to suit requirements of the design capabilities of the system as originally furnished by the manufacturer. The frequency of testing controls will be according to manufacturer's specifications.

.5 Air Filter Service

The Contractor shall replace filters as required to fit the filter sections provided by the manufacturer. Filter size and efficiency to match original as supplied by the manufacturer and as indicated in SW5 Equipment Inventory.

**SW 3. Service (cont'd)**

.6 Service calls

All service calls between regular inspections must be answered by a qualified technician per SW1.2 within two (2) hours of receiving the call on a 24 hour, 7 day basis. All named Service personnel must be able to report on site ready to service the system within two (2) hours of receiving the request for emergency service and such work shall proceed continuously until the system is returned to safe operating condition.

.7 Non-working Service Manager

The non-working Service Manager must be in full charge of the operations of the contractor in the performance of the services and shall be authorized to accept any notice, consent, order, direction, decision or other communication on behalf of the contractor that may be given under the contract. The manager must liaise as required with the Technical Authority and must be capable of communicating in English or French.

In the event that there is an emergency the Contractor's non-working Service Manager must be available to respond on-site within two (2) hours of receiving the call on a 24 hour, 7 day basis.

**SW 4. Reporting**

.1 The Contractor shall report to the Technical Authority verbally **and** by FAX, within twenty-four (24) hours, every visit required other than regular maintenance. The report shall detail all work completed, work outstanding and the reasons therefore and an estimated time frame for completion.

The Contractor shall call to the attention of operating staff verbally followed by a written report to the Technical Authority any improper procedures that may be noted by him and provide written instruction to guide the Technical Authority's staff.

The Contractor shall notify the Technical Authority in writing of any malfunction of equipment or systems related to, but not part of, the contract equipment which could adversely affect the reliability or cause damage to the system components under the maintenance contract

.2 *Equipment report cards:*

A completed service report card outlining any and all service performed on the equipment shall be enclosed in a clear vinyl envelope and affixed safely to the equipment. These report cards are to remain with the equipment for the duration of the contract and are to be turned over to the Technical Authority upon contract completion or termination.

.3 *Service Reports*:

A signed, written service report shall be completed at each regular maintenance visit, attesting that maintenance was performed as per the Maintenance Plan (SW3.3) and must be left on site in a suitable protective binder.

**SW 4. Reporting (cont'd)**

.4 *Analysis reports*:

- Gas fired appliance(s) combustion analysis reports are to be submitted, as stipulated in SW3.1.1.2). They are to be submitted no later than December 15th of each year;
- Chiller oil analysis reports are to be submitted, as stipulated in SW3.1.2.1). They are to be submitted no later than December 15th of each year;
- Chiller refrigerant analysis reports are to be submitted as per SW3.1.2.3). They are to be submitted no later than December 15th of each year.

***Attestation of maintenance as per Maintenance Plan (SW3.3) including any recommendations and/or comments shall be submitted with the quarterly invoice to the attention of:***

Public Works and Government Services Canada
Maintenance & Operational Assurance
400 Cooper, 6th Floor
Ottawa, Ontario
Mailing address: Ottawa, Ontario, K1A 0S5
Attention of : **DEPARTMENTAL REPRESENTATIVE**

Invoices **Must** include:

(a) PWGSC reference (8M3-1584-6) & contract number (EJ196-150923)
(b) period covered by invoice
(c) building name & address

***NOTE:*** ***Invoices will be returned unpaid if attestation of maintenance has not been received for the invoiced period.***

**SW 5 Equipment Inventory (HVAC)**

Building: Walkley Armouries, 2100 Walkley Road

| No. of Units | Location/Room Number | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSA5E15FCL | N/A | AHU # 4 DX Cooling, Hot Water Heating. Includes Return Fan<br>Filters: 24X24X2X2, 12X24X2X2<br>Belts: 2XB-68 (SF), 1XB-83 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Dristeem | VM-12 | 1039074-02-01 | Steam Humidifier for AHU # 4 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSA5E15FCR | N/A | AHU # 7 DX Cooling, Hot Water Heating. Includes Return Fan<br>Filters: 24X24X2X2, 12X24X2X2<br>Belts: 2XB-70 (SF), 1XB-83 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Armstrong Humidiclean Series HC-4000 | HC-4100 | 238467-10-1-03 | Packaged Electric Steam Humidifier, 15KW c/w Controller for AHU # 7 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH10J30AF | N/A | Firing Range Supply Fan #14 H.W. Heating & Glycol Reclaim Coil<br>Filters: 24X24X2X6, 12X24X2X3<br>Belts: 3XB-108 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH5C12FCL | N/A | AHU # 3 Hot Water Heating. Includes Return Fan<br>Filters: 24X24X2X2<br>Belts: 2XB-54 (SF), 1XA-69 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH5C12FCR | N/A | AHU # 2 Hot Water Heating. Includes Return Fan<br>Filters: 24X24X2X2<br>Belts: 2XB-54 (SF), 1XA-69 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH5E15FCL | N/A | Firing Point Exhaust #15 c/w Glycol Reclaim Coil<br>Filters: 24X24X2X2, 12X24X2X2<br>Belts: 2XA-67 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH8E15FCL | N/A | Bullet Catcher Exhaust #16 c/w Glycol Reclaim Coil<br>Filters: 24X24X2X3, 12X24X2X3<br>Belts: 2XB-71 |

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| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH5E15FCR | N/A | AHU # 1 DX Cooling, Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X2, 12X24X2X2<br><br>Belts: 2XB-72 (SF), 1XB-68 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Dristeem | VM-12 | 1039074-02-02 | Steam Humidifier for AHU # 1 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH5A10FCL | N/A | AHU # 5 DX Cooling, Hot Water Heating, Includes Return Fan<br><br>Filters: 24X24X2X1, 24X12X2X1<br><br>Belts: 1XB-60 (SF), 1XA-67 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Armstrong Humidiclean Series HC-4000 | HC-4100 | 238467-50-2-03 | Packaged Electric Steam Humidifier, 15KW c/w Controller for AHU # 5 |
| 1 | Main Floor Mechanical Room M.R. #1 | Mark Hot | CSAH3A10FCL | N/A | AHU # 6 Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X1, 12X24X2X1<br><br>Belts: 1XB-71 (SF), 1XA-65 (RF) |
| 1 | Main Floor Mechanical Room M.R. #1 | Carnes | HCAD | 73938-05-9 | Steam Humidifier for AHU #6 |
| 2 | Main Floor Mechanical Room M.R. #1 | Bell & Gossett | 4X4X9.5 | 703569A<br><br>703569B | Hot Water Heating Circulating Pumps P1 & P2 c/w 7.5 H.P. Motors and Suction Diffusers |
| 2 | Main Floor Mechanical Room M.R. #1 | Armstrong | 4380 | 100144<br><br>100145 | Glycol Circulating Pumps P3 & P4 c/w 2 H.P. Motors and Suction Diffusers |

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|---|---|---|---|---|---|
| 1 | Main Floor Mechanical Room M.R. #1 | Bell & Gossett | 3x3x7B | 703570 | Glycol Reclaim Pump P5 c/w 3 H.P. Motor and Suction Diffuser |
| 1 | Main Floor Mechanical Room M.R. #2 | Mark Hot | CSAH5E15FCR | N/A | AHU # 8 DX Cooling, Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X2, 12X24X2X1<br><br>Belts: 2XB-72 (SF), 1XB-72 (RF) |
| 1 | Main Floor Mechanical Room M.R. #2 | Carnes | HCDD | 73938-05-6 | Steam Humidifier for AHU # 8 |
| 1 | Main Floor Mechanical Room M.R. #2 | Mark Hot | CSAH4C12FCR | N/A | AHU # 9 Hot Water Heating, Includes Return Fan<br><br>Filters: 24X24X2X1, 12X24X2X1<br><br>Belts: 1XB-60 (SF), 1XB-84 (RF) |
| 1 | Main Floor Mechanical Room M.R. #2 | Armstrong Humidiclean Series HC-4000 | HC-4100 | 238467-30-1-03 | Packaged Electric Steam Humidifier, 15KW c/w Controller for AHU # 9 |

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|---|---|---|---|---|---|
| 1 | Main Floor Mechanical Room M.R. #2 | Mark Hot | CSAH3A10FCR | N/A | AHU # 10 DX Cooling, Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X1, 12X24X2X1<br><br>Belts: 1XB-52 (SF), 1XA-65 (RF) |
| 1 | Main Floor Mechanical Room M.R. #2 | Carnes | HCAD | 73938-05-7 | Steam Humidifier for AHU # 10 |
| 1 | Main Floor Mechanical Room M.R. #3 | Mark Hot | CSAH4C12FCL | N/A | AHU # 11 Hot Water Heating, Includes Return Fan<br><br>Filters: 24X24X2X1, 12X24X2X1<br><br>Belts: 1XB-64 (SF), 1XA-79 (RF) |
| 1 | Main Floor Mechanical Room M.R. #3 | Armstrong Humidiclean Series HC-4000 | HC-4100 | 238467-50-1-03 | Packaged Electric Steam Humidifier, 15KW c/w Controller for AHU # 11 |
| 1 | Main Floor Mechanical Room M.R. #3 | Mark Hot | CSAH5C12FCR | N/A | AHU # 12 Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X2<br><br>Belts: 1XA-63 (SF), 2XB-54 (RF) |
| 1 | Main Floor Mechanical Room M.R. #3 | Mark Hot | CSAH5E15FCL | N/A | AHU # 13 DX Cooling, Hot Water Heating. Includes Return Fan<br><br>Filters: 24X24X2X2, 12X24X2X2<br><br>Belts: 2XB-67 (SF), 1XB-99 (RF) |
| 1 | Main Floor Mechanical Room M.R. #3 | Armstrong Humidiclean Series HC-4000 | HC-4100 | 238467-70-1-03 | Packaged Electric Steam Humidifier, 9KW c/w Controller for AHU #13 |
| 1 | Outside Building Front Entrance (south side) | Kool King | MOC-18CDN1-MN10W | D200045070315307120254 | Ductless Split DX AC Unit for Lobby Area (R-410A) |
| 1 | Outside East Side of Building Beside Roof Access Ladder | Goodman | HDC18-1AB | 9610134705 | Ductless Split DX AC Unit for I.T. Room SB18 (R-22) |
| 1 | Outside North-West End of Building | Samsung | N/A | N/A | Ductless Split Unit |
| 1 | Outside North-East End of Building | Samsung | N/A | N/A | Ductless Split Unit |
| 5 | Various Roof Locations | Various | N/A | N/A | Exhaust Fans, EF#1, EF#2, EF#9, EF#11, EF#21 |

| No. of Units | Location/Room Number | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 1 | Outside East Side of Building Near Laneway | Goodman | HDC12-1AT | 103400130 | Ductless Split Unit for I.T. Room NB5 (R-22) |
| 3 | Service Bays | Reznor | REZ-UADP100 | N/A | Ceiling Mounted Gas Fired Unit Heaters |
| 1 | Stores Area (south side of building) | Reznor | REZ-UADP100 | N/A | Ceiling Mounted Gas Fired Unit Heater |
| 2 | Storage Area (north side of building) | Reznor | REZ-UADP200 | N/A | Ceiling Mounted Gas Fired Unit Heaters |
| 2 | Mechanical Room #1 | Cleaver Brooks | M5W-2500<br>Series 700 | S-18244M5 (#1)<br>S-18243M5 (#2) | 2000MBH (2,000,000 BTUH) Gas Fired, Forced Draft, Water Tube Hot Water Heating Boilers c/w all Associated Controls |
| 2 | Centre Basement Electrical Room | Raypak | Raytherm<br>WH1-0182A | 1406381362 (#1)<br>1406381363 (#2) | Gas Fired Domestic Hot Water Heaters (181MBH), c/w Boiler Circulating Pumps and A.O. Smith Storage Tanks (2) |
| 1 | Roof Top | Trane | TTA240BW00BC | K445R1AAH | Condensing Unit for AHU # 1, 2 Circuits (R-22) |
| 1 | Roof Top | Trane | N/A | N/A | Condensing Unit for AHU # 4, 2 Circuits (R-22) |
| 1 | Roof Top | McQuay | C080G6W | B924413587 | Condensing Unit for AHU # 5, 1 Circuit (R-22) |
| 1 | Roof Top | McQuay | ALP016C | 5XK050802 | Condensing Unit for AHU # 7, 1 Circuit (R-22) |
| 1 | Roof Top | McQuay | ACZ025AC37-ER11 | STNU040100190 | Condensing Unit for AHU # 8, 2 Circuits (R-22) |
| 1 | Roof Top | McQuay | C080G6W | B924413586 | Condensing Unit for AHU # 10, 1 Circuit (R-22) |
| 1 | Roof Top | McQuay | ALP016C | 5XK050902 | Condensing Unit for AHU # 13, 1 Circuit (R-22) |

Building: M-23, 1200 Montreal Road, Ottawa

| No. of Units | Location Room No. | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 1 | Room 101 | Climate Master | 70214B5A0A0000A | 86KU2361 | DX Heat/Cool Incremental Unit (R-22) |
| 1 | Lower Roof | Fujitsu | AOU18C1 | 004369 | Ductless Split Unit (R-22) c/w Condensate Pump & Remote Stat., Serves Room 101 |
| 1 | Lower Roof | Fujitsu | AOU18C1 | 004368 | Ductless Split Unit (R-22) c/w Condensate Pump & Remote Stat., Serves Room 100 |
| 1 | Room 102 | Climate Master | 70214B5AOA0000A | 86K42362 | Ductless Split Unit (R-22) c/w Condensate Pump & Remote Stat. |
| 1 | Room 103 | Energy Knight | EKTC150B | 0404741412 | Ductless Split Unit (R-22) c/w Condensate Pump & Remote Stat. |
| 1 | Upper Roof | York | NC090C00B5AA2A | N1K4091821 | DX AHU c/w Condensate Pump and Roof Top Condenser (R-410A), Serves Room 106H |
| 1 | Upper Roof | Liebert Challenger | DCSL083LY | 106C44564 | AC-1 c/w Condensate Pump and Roof Top Condenser (R-22), Serves Room 106F Filters: 2X24X18X2 |
| 1 | Mid-roof | Liebert Challenger 300 | MMC040A-Y00 | 85427 | AC-4, DX A/C Unit 2 Circuits (R-22) c/w Humidifier, Electric Re-heat, Condensate Pump and Roof Top Condenser, Serves Room 108B |
| 1 | Mid-roof | Liebert System 3 | CDL165-B | 0623C87413 | AC-10, DX A/C Unit 2 Circuits (R-22) c/w Roof Top Condenser, Serves Printing Room 120 |
| 2 | Mid-roof | N/A | N/A | N/A | Washroom Exhaust |
| 1 | Lower Roof | N/A | N/A | N/A | Exhaust Fan F5 for Printed Circuit Room 117A |
| 1 | Outdoors (Speaker's Corner) | Sanyo | KS1812W | 92604 | Ductless Split Unit (R-22) c/w Condensate Pump & Remote Stat., Serves Telecom Room 112A |
| 1 | Mid-roof | Mitsubishi | A36NHA2 | 71U0031913 | Ductless Split Unit c/w Condensate Pump & Remote Stat. |
| 1 | Upper Roof | York | YCJD24541S1A | W1G4984279 | AH-9, Packaged DX A/C Unit (R-410A) c/w Roof Top Condenser, Serves Room 209A (off gym) |
| 1 | Mechanical Penthouse | Trane | 17MPHFBVU | 759251 | AH-1 Air Handling Unit With Glycol Heating and Chilled Water Cooling Filters: 10X16X25X2 Belts: 2XB-55 |
| 1 | Mechanical Penthouse | Trane | 240B-9-1HC | L86H40075 | F-3 Return Fan for Air Handling System 3 Belts: 1XA-59 |
| 1 | Mechanical Penthouse | Trane | 24B-9-1HF | L86D37564 | RF-9B Return Fan for AHU- 1 Belts: 1XA-69 |
| 1 | Mechanical Penthouse | Trane | 10MPHFTH | 759253 | AH-3 Air Handling Unit With Glycol Heating and Chilled Water Cooling Filters: 6X16X25X2 Belts: 1XB-62 |
| 1 | Mechanical Penthouse | Trane | 10MPHFTH | 759252 | AH-2 Air Handling Unit With Glycol Heating and Chilled Water Cooling Filters: 6X16X25X2 Belts: 1XB-62 |

| No. of Units | Location Room No. | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 2 | Mechanical Penthouse | Leitch | N/A | N/A | Chilled Water Circulating Pumps P-1 & P-2 (3HP) |
| 1 | Mechanical Penthouse | Trane | 1H-9-1HC | 1861375 | RF-2 Return Fan for Air Handling System 2<br>Belts: 1XA-51 |
| 1 | Mechanical Penthouse | Armstrong | H51F | 8609 | Secondary Heating Loop Circulating Pump P5 for AHU-1 |
| 1 | Mechanical Penthouse | Armstrong | 816032-000 | 0911 | Secondary Heating Circulating Pump P6 for AHU-2 |
| 1 | Mechanical Penthouse | Armstrong | H533F | 8902 | Secondary Heating Circulating Pump P7 for A/H-3 |
| 2 | Mechanical Penthouse | Leitch | N/A | 167886-1<br>167886-2 | Primary Loop Glycol Heating Pumps 3 & 3A |
| 1 | Basement Condensate Room | Delta-T | CU3 | N/A | Duplex Condensate Pumping System c/w Alternating and Float Controls |
| 1 | Basement Room 013 | Trane | CRHR600D-4RAO | N2LLOU2622 | CR-4 Air Cooled, R-22 Reciprocating Chiller |
| 1 | Basement Room 013 | Liebert | UD75A | 48566C | AC-8, DX A/C Unit (R-22), 2 Circuits c/w Roof Top Condenser (Lower Roof) |
| 1 | Basement Room 014 | Liebert | UD114A | 48566B | AC-7, DX A/C Unit (R-22), 2 Circuits c/w Roof Top Condenser (Lower Roof) |
| 1 | Basement Room 014 A/C Area | Trane | 10LPHCTH | 718984 | AH-8 With Steam Heating |
| 1 | Basement Room 011 | Barnes | 3SE1054L | N/A | Sump Pump |
| 1 | Basement Condensate Room | N/A | N/A | N/A | F23 Condensate Room Exhaust Fan |
| 1 | Mid-roof | Trane | CAUBC6052A121 | J86F81478 | Roof Top Air Cooled Condenser for Chiller CR-4 |
| 1 | Outdoor Mezzanine | York | ZH120C00B2AAA6A | N1L4202489 | Packaged DX (R-410A) Air Handling Unit |
| 10 | Various Locations | N/A | N/A | N/A | Steam Unit Heaters |

Building: National Defence Medical Centre (NDMC), 1745 Alta Vista Dr., Ottawa

| No. of Units | Location Room No. | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 1 | B-Wing, M153 | Trane | SUW753A | 689183 | Packaged Water Cooled DX, A/C Unit, R-22, 6 Tons Serving Old Pharmacy<br>Belts: 1XA55<br>Filters: 4X15X20X1 |
| 1 | D-Wing, 1st Floor Hall Closet | Carrier | 50BT-008-130 | 0495V91574 | Packaged Water Cooled DX, A/C Unit, R-22, 7.5 Tons<br>Belts: 1XA33<br>Filters: 4X16X25X1 |
| 1 | B-Wing Roof | Trane | CGAA-5002-EA-LA | L6A715678 | Air Cooled Liquid Chiller, 50 Tons, R-22 |
| 1 | B-Wing Roof | Trane | CGAA-5002-EA-LA | L6A715677 | Air Cooled Liquid Chiller, 50 Tons, R-22 |
| 1 | A-Wing Ground Floor, G123B | Liebert | CF046WGCOO | 206281-002 | Packaged Water Cooled DX, A/C Unit, R-22, 4 Tons<br>Belts: 1XA36<br>Filters: 2X18X25X2 |
| 1 | A-Wing Ground Floor, G129 | Climate Master | QT66-3 | D9015417 | Packaged Water Cooled DX, A/C Unit, R-22, 3 Tons<br>Serving Pharmacy<br>Belts:<br>Filters: 2X25.5X29.5X2 |
| 1 | B-Wing Loading Dock Roof | I.C.P. | ACS024A2C1 | FBA024GC1 | Split DX, A/C for Fan #71 (Mech. Rm #7, Room #134), R-22, 2 Tons<br>Belts: 1X4L440<br>Filters: 1X20X20X1 |
| 1 | B-Wing Loading Dock Roof | Friedrich | MR30C3E | AKGT02699 | Split DX, A/C for Room #352, R-410A, 2.5 Tons |
| 1 | B-Wing Loading Dock Roof | Friedrich | MR30C3E | LCBT00483 | Split DX, A/C for Room #352, R-22, 2.5 Tons |
| 1 | D-Wing, Ground Floor, G136 | York | AHE36C3XH21B | W1D6537918 | DX, A/C, R-410A, 3 Tons, Serving Snack Bar Kitchen<br>Filters: 1X20X24X1 |
| 1 | D-Wing, Ground Floor, Outside | Sanyo | C1211 | 0150804 | Ductless Split Unit, Serving Room G138, R-22, 1 Ton |
| 1 | F-Wing, Ground Floor, G102 | Liebert MiniMate | MME020WGFHO | 3002R22 | Water Cooled DX A/C Unit, R-22, 1.5 Tons |
| 1 | A-Wing Main Floor, M143 | Canair | CP21WH | MTB868227 | Water Cooled DX A/C Unit, R-22, 2 Tons |
| 1 | A-Wing Beside North Entrance | Mitsubishi | MU224WN | 5003314 | Ductless Split DX, A/C, R-22, 2 Tons Serving Room M146 |
| 1 | F-Wing Main Floor, M104 | Canair | CU-30 | MTC90 9065 | Water Cooled DX A/C Unit, R-22, 2.5 Tons, Serving Room M101 |
| 1 | H-Wing Main Floor, M127 | Chillcon | HW12 | 81-J-TAK-15654 | Water Cooled DX, A/C, R-22, 1 Ton, Serving Front Desk<br>Filters: 1X11X20X1 |
| 1 | K-Wing Outside Main Entrance | Panasonic | CUC12BKP6 | 0581100841 | Ductless Split Unit, R-22, 1 Ton, Serving Room M130 |
| 1 | K-Wing Outside Main Entrance | Panasonic | CUC12BKP6 | 0581100883 | Ductless Split Unit, R-22, 1 Ton, Serving Room M134 |
| 1 | A-Wing Roof | Sanyo | SAP361C | 0060504 | Ductless Split Unit, R-22, 3 Tons, Serving Room 107C |
| 1 | A-Wing Roof North Ambulance Entrance | I.C.P. | AG060GB2 | L981152181 | Split DX, A/C, R-22, 5 Tons, Serving Room 108<br>Filters: 1X20X25X1 |
| 1 | A-Wing Roof North Ambulance Entrance | Tadiran | GXL-2040-HDE | 51302675168 | Ductless Split Unit, R-22, 2.5 Tons, Serving Room 261 |

| No. of Units | Location Room No. | Make | Model | Serial Number | Details |
|---|---|---|---|---|---|
| 1 | B-Wing, 129 | Liebert | CF046WGCOO | 206281-001 | Packaged DX, A/C Unit, R-22, 4 Tons<br>Belts: 1XA36<br>Filters: 2X18X25X2 |
| 1 | E-Wing, 130D | Trane | SUW-303A | 408126 | Packaged Water Cooled DX, A/C Unit, R-22 |
| 1 | A-Wing Sunroom Roof Over Ambulance Bay | Sanyo | C1211 | 0151304 | Ductless Split Unit, R-22, 1 Ton, Serving Room 214A |
| 1 | A-Wing Sunroom Roof West Side | Mitsubishi | MS-A12WA-1 | 3000370 | Ductless Split Unit, R-22, 1 Ton, Serving 2A Sunroom |
| 1 | E-Wing, 317 | Trane | SUW303A | 433400 | Packaged Water Cooled DX, A/C Unit, R-22, 2.5 Tons<br>Belts: 1XA38<br>Filters: 1X20X25X1 |
| 1 | D-Wing, 629 | Liebert Challenger | CU70W | N/A | Packaged Water Cooled DX, A/C Unit, R-22, 4 Tons<br>Filters: 1X20X25X2 |
| 1 | E-Wing, 701 | Keeprite | KSSE30GA2 | L981824137 | Packaged DX, A/C Unit, R-22, 6 Tons<br>Belts: 1XA46<br>Filters: 1X15X25X1 |