

ARLINGTON COUNTY, VIRGINIA
AGREEMENT NO. 16-317-SS
Amendment Number 1

This Amendment Number 1 ("Amendment") is made on the date of execution of the Amendment by the County and amends Agreement Number 16-317-SS dated March 31, 2016, ("Main Agreement") (and) made between Havtech Service Division LLC ("Contractor") and the County Board of Arlington County, Virginia ("County").

Whereas the County and the Contractor desire to amend the General Conditions called for under the Main Agreement, as amended (if applicable) the Contractor and the County, in consideration of the promises and other good and valuable consideration specified in this Amendment, amend the Main Agreement as follows:

1. Elect the three "subsequent contract terms" starting **May 16, 2018** and expiring on **May 15, 2021**.
2. Revise **Attachment A – Scope of Services** to add the following equipment:

a. Location 1 - Homeless Shelter

Name	Location	Model
Daikin Chiller	Penthouse Mechanical Rm	WMC150DCNEROB

Preventative Maintenance includes the services listed in Attachment A to this Amendment.

3. Revise **Attachment B - Pricing** as follows:

For providing HVAC system preventative maintenance to the equipment listed in Attachment A, County will pay the Contractor the following fees:

Location 1: Homeless Shelter

Term	Annual Rate	Quarterly Payment
May 16, 2018-May 15 2019	\$18,338.00	\$4,585.00
May 16 2019-May 15 2020	\$18,897.00	\$4,724.00
May 16 2010-May 15 2021	\$19,464.00	\$4,866.00

Location 2: Equipment Bureau

Term	Annual Rate	Quarterly Payment
May 16, 2018-May 15 2019	\$2,842.00	\$621.00
May 16 2019-May 15 2020	\$2,931.00	\$640.00
May 16 2010-May 15 2021	\$3,022.00	\$755.50

Preventative Maintenance includes the services listed in Attachment A to this Amendment. For providing on-call HVAC system repair and maintenance services at all County locations Contractor will furnish labor, overtime or emergency labor, repair parts and components, regulated material recovery and disposal services at the following labor rates:

Type	Rate/per labor hour
Straight Time	\$160.00 per labor hour
Overtime	\$200.00 per labor hour
Sunday's	\$245.00 per labor hour
Holiday	\$300.00 per labor hour

Truck Charges: \$30.00 per service call
Environmental Impact Fee: \$10.00

WITNESS THESE SIGNATURES:

THE COUNTY BOARD OF ARLINGTON
COUNTY, VIRGINIA

SIGNED
BY: 

PRINT NAME IGOR SCHERBAKOV
AND TITLE: PROCUREMENT OFFICER

DATE: 7/30/2018

HAVTECH SERVICE DIVISION LLC

SIGNED
BY: 

PRINT NAME
AND TITLE: S. Daniel Davis III, Service Sales Leader

DATE: 7/27/18



The Preventive Maintenance Agreement:

Havtech is pleased to present you with a genuine Commercial Service Agreement. You can count on a Havtech maintenance agreement to help:

- Keep occupants comfortable and productive.
- Minimize energy consumption and maintain equipment efficiency.
- Prevent system outages.
- Inform customers of preventive maintenance progress, inspection findings and applicable maintenance and repair options.

Havtech will provide the following professional maintenance services on the air conditioning system specified on the attached "List of Equipment."

Preventive Maintenance and Inspection Services – Under this agreement, Havtech will provide preventive maintenance and inspection labor

- **Guaranteed response time of four (4) hours or the diagnostic time for that placed service call is at no charge.**
- Daikin evaporators are not covered under this agreement however if the need arises, HAVTECH will perform diagnostics and repairs at the Preferred Customer Rates
- Conduct periodic preventive maintenance visits per year in accordance with manufacturer recommendations, application demands, environmental factors and the experience of Havtech technicians and service managers.
- All work will be performed during normal Havtech working hours; 7:00 A.M. to 4:00 P.M. Monday-Friday.
- Identify defects, failed or doubtful components,
- Inform customers of preventive maintenance progress, inspection findings and applicable maintenance and repair options.
- Recommend cost-effective repairs, applicable retrofit and modification options

Repairs and Unscheduled Service Calls -- This agreement does not include system repairs, parts installation or service calls made at the customer's request.

For Services Not Included under This Agreement and at any other Arlington County Facilities -- Havtech will furnish labor, overtime or emergency labor, repair parts and components, regulated material recovery and disposal services at PREFERRED CUSTOMER RATES.



Scope of Work:
Daikin VRV'S/iTouch Manager
Quarterly Maintenance Inspection

- Customer is responsible to clean or replace all evaporator air filters before Havtech performs the quarterly inspection
- Check in with customer and review any operating issues
- Check the Daikin iTouch Manager for alarms or errors
- Check the general operation of units
- Check the inverter boards and clean if necessary
- Check that all connectors are securely connected to the outdoor unit Printed Circuit Board (PCB)
- Inspect outdoor fans for cracks and chips
- Check unit cabinet for signs of physical damage
- Ensure the outdoor cabinet drains are clear
- Check the condition of the heat exchanger (outdoor coil)
- The customer is responsible for cleaning the heat exchangers (outdoor coils)
- Check the refrigeration piping insulation is not damaged
- Check for signs of refrigerant leakage, i.e. oil in base of unit and around brazed joints
- Tighten all electrical connections within the outdoor VRV'S
- Ensure all cabinet screws are secure
- While operating, check the system for any abnormal noise or vibration from the condensing unit
- Connect Service Checker (where applicable) to each VRV Heat Pump system
- Check pressures, temperatures and compare to target pressures and temperatures
- Record and log up to one (1) hour of operational data per system
- Diagnose data to determine if any corrective action(s) need to be addressed
- Check iManager for any loose electrical connections
- Provide "Service pack" or routine upgrades to Daikin the iTouch manager (Entire revision upgrades will be provided on a charge basis)
- Submit a written inspection report to the customer which includes the operating parameters, deficiencies, repairs or corrective action required
- Clean areas of any debris
- Indoor units will be checked if necessary at the Preferred Customer Rates



Daikin Air Handler w/Water Coils

Quarterly Maintenance Inspection

- o Review general condition of equipment and associated supply & return ductwork and report any anomalies
- o Check/lubricate motors and fan (and other) non-sealed bearings
- o Check fan belt condition and sheaves alignment; adjust accordingly
- o Replace the evaporator fan belt(s) one (1) time per contract year
- o All filters will be responsibility of Arlington County staff
- o Check condition of evaporator and condensate pan
- o Inspect evaporator coil for debris
- o Check chill/hot water valves operation
- o Inspect fan contactors and connections annually
- o Tighten electrical connections (high and low voltage wiring).
- o Test all features and functions of the automatic control system including the economizer cycle; verify setup has not been modified and report any defective DDC and/or electronic/electric controls
- o Tighten loose mechanical fasteners (especially exterior cabinet enclosure).
- o Check condition of the fan vibration isolators
- o Check starters/contactors/transformers for operation and wear
- o Review the outstanding issues with the resident maintenance or engineering staff prior to leaving the site; recommend additional PM tasks and frequencies which the staff could be performing between the maintenance inspections
- o Submit a written inspection report to the customer which includes the operating parameters, deficiencies, repairs or corrective action required



Scope of Work:
Daikin Chiller
COMPREHENSIVE ANNUAL INSPECTION SERVICE
Daikin WMC (1)

- Report in with the Customer Representative.
- Record and report abnormal conditions, measurements taken, etc.
- Review alarm history with the customer for operational problems and trends
- Analyze compressor fault log.
- Review general alarm history
- Check IGV operation and calibration
- Check and tight compressor electrical connections
- Perform moisture-prevention measures per compressor service manual
- Check settings in Microtech Controller
- Clean and tighten control cabinet
- Inspect heat sinks
- Check all electrical devices for signs of overheating or wear
- Inspect capacitor bank on both compressors
- Inspect motor terminals
- Inspect display screen
- Inspect general appearance of chiller, paint, insulation
- Perform refrigerant leak test with electronic leak detector
- Test and torque compressor mounting bolts
- Clean flow sensors
- Isolate and drain condenser
- Remove blank end condenser head
- Brush condenser tubes with nylon brushes
- Reinstall head, check for water leaks



STARTUP/CHECKOUTPROCEDURE

Daikin WMC (1)

- 🌀 Verify full water systems, including the cooling tower, the condenser and the evaporator.
- 🌀 Verify clean cooling tower, make recommendations as needed.
- 🌀 Start the condenser water pump, chilled water pump, and cooling tower fan(s).
- 🌀 Verify flow rates through the condenser and the evaporator.
- 🌀 Test all flow-proving devices on the chilled water and condenser water circuits.
- 🌀 Start the chiller.
- 🌀 Verify the starter operation.
- 🌀 Verify the operation of all timing devices.
- 🌀 Check the loading and unloading capability.
- 🌀 Check the setpoint and sensitivity of the chilled water temperature control device.
- 🌀 Verify the operation of the condenser water temperature control device.
- 🌀 Log the operating conditions after the system has stabilized.
- 🌀 Review operating procedures with operating personnel.
- 🌀 Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.



MID-SEASON RUNNING INSPECTION

Daikin WMC (3)

- 🌀 Check the general operation of the unit.
- 🌀 Analyze compressor fault log
- 🌀 Check IGV operation
- 🌀 Log the operating temperatures, pressures, voltages, and amperages
- 🌀 Check the operation of the control circuit
- 🌀 Check the operation of the motor and controller
- 🌀 Analyze the recorded data.
- 🌀 Compare the data to the original design conditions.
- 🌀 Review operating procedures with operating personnel.
- 🌀 Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.

SEASONAL SHUT-DOWN PROCEDURE

Daikin WMC (1)

- 🌀 Check the general operation of the unit.
- 🌀 Shut down the chiller, pumps and auxiliary equipment.
- 🌀 Drain the condenser water piping as required.
- 🌀 Turn off equipment power as necessary.
- 🌀 Review operating procedures with operating personnel.
- 🌀 Provide a written report of completed work, operating log, and indicate any uncorrected deficiencies detected.