

FEBRUARY 2023

HVAC Preventative Maintenance services provided under this Request for Quotes (RFQ) shall be in strict conformity with each of the individual equipment Manufacturer's recommendations including and not limited to the services provided under this RFP.

HVAC PREVENTATIVE MAINTENANCE SCOPE OF WORK

DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION

Computer Room Air Conditioner

Special Instructions

- Review manufacturer's instructions
- Perform any required dry-cooler or air cooled condenser maintenance simultaneously with this PM.
- No intentional venting of refrigerants is permitted.
- Whenever refrigerant is added or removed from equipment, record the quantities on the appropriate forms.
- Recover, recycle, or reclaim the refrigerant as appropriate.
- If disposal of the equipment item is required, follow regulations concerning removal of refrigerants and disposal of the equipment.
- If materials containing refrigerants are discarded, comply with EPA regulations as applicable.
- Refrigerant oils to be removed for disposal must be analyzed for hazardous waste and handled accordingly.
- Closely follow all safety procedures described in the Material Safety Data Sheet (MSDS) for the refrigerant and all labels on refrigerant containers.

Check Points

- Thoroughly inspect the equipment.
- Clean drain pan and note excessive corrosion.
- Check refrigerant levels and recharge if needed.
- Check for refrigerant leaks as necessary.
- Check condition of cooling and reheat coils.
- Drain and clean humidifier drip pan, replace pan if applicable.
- Lubricate motor and fan bearings, if not sealed.
- Check alignment of motor and fan.
- Check belt tension and condition, adjust or replace as required.
- Replace pre-filters, if needed.
- Replace final filters, if needed.
- Check compressor oil level if compressor has a sight glass.
- Check compressor operation.
- Run machine, check action of controls, relays, switches, etc. to see that compressor(s) run at proper settings.
- Reheat coils activate properly.
- Humidistat activates humidifier.
- Suction and discharge pressures are proper.
- Discharge air temperature is set properly.
- Check and adjust vibration eliminators. Replace if required.
- Check and tighten all electrical terminals, connections, and disconnect switches.

Computer Room Units

- Inspections per year, per schedule.
- Each visit, check general operation of the equipment, make minor repairs, adjustments and inform the Customer of operation performance.
- Replace air filters.
- Clean condenser coils once per year.
- Drain and clean drain pan - condensate lines.
- Check all controls on equipment to insure for proper operation.
- Check all humidity controls on equipment for proper operation.

Package Unit Air Conditioners

- Review manufacturer's instructions
- Comply with the latest provisions of the Clean Air Act and Environmental Protection Agency regulations as they apply to protection of stratospheric ozone.
- No intentional venting of refrigerants is permitted. If servicing requires intrusion into the refrigerant circuit, the unit must be able to be pumped down, or the remaining refrigerant recovered.
- Whenever refrigerant is added or removed, record the quantities on the appropriate form.
- Recover, recycle, or reclaim the refrigerant as appropriate.
- If materials containing refrigerants are discarded, comply with EPA regulations as applicable.
- Refrigerant oils to be removed for disposal must be analyzed for hazardous waste and handled accordingly.
- Closely follow all safety procedures described in Material Safety Data Sheet for the refrigerant and all labels on the refrigerant containers.

Operating Inspection

- Inspect exterior of the air handler.
- Visibly check for chilled water or refrigerant leaks on lines, valves, and strainers.
- Lubricate motor and fan bearings as required.
- Check belt tension and condition.
- Check filters, replace if needed.
- Check condensate pan and drain. Flush with hot water if needed.
- Check discharge air temperature.
- Check compressor operation.

Annual Inspection

- Remove panels.
- Clean drain pan.
- Clean strainer on chilled water unit.
- Check for refrigerant leaks.
- Check coil pressure drop.
- Clean coils if necessary.
- Drain and clean humidifier pan if applicable.
- Clean and lubricate motor and fan bearings as required.
- Check pulley alignment.
- Check bearings for excessive wear.
- Replace filters replace if needed.
- Check reheat coil pressure drop, clean if necessary.

Air Compressor (After-Cooler)

Applies to the after-cooler/separator utilizing chilled water to condense moisture from large compressed air systems.

Special Instructions

- Review manufacturer's instructions
- Schedule outage with operating personnel.
- Provide an alternate source of air, if necessary.
- Schedule Preventative Maintenance (PM) on associated equipment if possible.
- Secure air-and chilled-water valves and tag them
- Secure, lockout and tag electrical supply to compressor.
- Wear appropriate protective equipment.
- Use caution when disassembling.
- Check for and relieve pressure where found.

Check Points

- Unbolt and remove supply and discharge water lines.
- Unbolt supply and discharge air flanges and lower assembly.
- Remove tube bundle assembly.
- Check tube bundle for deterioration or ruptured tubes.
- Clean exterior of the tube of all scale buildup.
- Flush out the tube bundle shell.
- Visually inspect the shell, flanges, piping, etc. for deterioration, cracks, etc.
- Clean the trap orifice of all carbon and heavy grease buildup.
- Reassemble the tube bundle in the shell using new gaskets and seals.
- Replace assembly and separator in pipe line, using new gaskets.
- Reconnect the supply and discharge water lines.
- Remove tags, open air and water valves, restore power, and start air compressor.
- Check operation of unit.
- Check the air and water inlet and outlet temperatures.
- Check all connections for leaks.

Air Compressors

- Change compressor crankcase oil as required.
- Clean air intake filter.
- Check air dryer, automatic condensate drain, and air tank for proper operation.
- Clean condenser coils or grille.
- Inspect belt alignment and condition, adjust or replace belts as required.
- Check for corrosion and scale on water-cooled units.
- Clean heat exchange surfaces
- Check gauges.
- On two-state compressor, check intermediate pressure.
- Test relief valves, replace if leaking or the relief range is incorrect.
- Check compressor unloaders for proper operation.
- Check compressor suction and discharge valves for proper operation.
- Check cut in and out of compressor pressure controller.
- Re-install belt guard.

Air Driers

Refrigerated, or Regenerative Desiccant Type – 10 SCFM or greater

- Review manufacturer's instructions.
- De-energize, lock and tag electrical circuits.
- Comply with the latest provisions of the Clean Air Act and Environmental Protection Agency (EPA) regulations as they apply to protection of stratospheric ozone.
- No intentional venting of refrigerants is permitted. During the servicing, maintenance, and repair of refrigeration equipment, the refrigerant must be covered.
- Whenever refrigerant is added or removed from equipment, record the quantities on the appropriate forms.
- Recover, recycle, or reclaim the refrigerant as appropriate.
- If disposal of the equipment Item is required, follow regulations concerning removal of refrigerants and disposal of the item.
- If materials containing refrigerants are discarded, comply with EPA regulations as applicable.
- Refrigerant oils to be removed for disposal must be analyzed for hazardous waste and handled accordingly.
- For refrigerant type units, closely follow all safety procedures described in the Material Safety Data Sheet (MSDS) for the refrigerant and all labels on refrigerant containers.
- Lubricate valves and replace packing, if necessary.
- Check dryer operating cycle.
- Inspect and clean heat exchanger.
- Check outlet dew point.
- Clean and lubricate blower.
- Check automatic blow down devices.
- Inspect and replace or reinstall inlet filters.

Refrigerated Type

- Check traps.
- Check refrigerant level and moisture content. If low level or moisture is indicated, check for refrigerant leaks using a halogen leak detector or similar device. If leaks cannot be stopped or corrected, report leak status to Customer.
- Clean and lubricate condenser fan motor.

Desiccant Type

- Replace filter cartridges, both pre-filter and after-filter.
- Check the inlet flow pressure, temperature and purge rate.
- Check the desiccant and replace if necessary.
- Inspect and clean solenoids, purge valves, and strainers.

Air Handlers

Split System DX, Chilled Water or Brine

- Review manufacturer's instructions.
- Comply with the latest provisions of the Clean Air Act and Environmental Protection Agency regulations as they apply to protection of stratospheric ozone.
- No intentional venting of refrigerants is permitted. If servicing requires intrusion into the refrigerant circuit, the unit must be able to be pumped down, or the remaining refrigerant recovered.
- Whenever refrigerant is added or removed, record the quantities on the appropriate form.
- Recover, recycle, or reclaim the refrigerant as appropriate.
- If materials containing refrigerants are discarded, comply with EPA regulations as applicable.
- Refrigerant oils to be removed for disposal must be analyzed for hazardous waste and handled accordingly.
- Closely follow all safety procedures described in the Material Safety Data Sheet (MSDS) for the refrigerant and all labels on the refrigerant containers.

Operating Inspection

- Thoroughly inspect exterior of the air handler.
- Visibly check for chilled water or refrigerant leaks on lines, valves, and strainers.
- Lubricate motor and fan bearings as required.
- Check belt tension and condition.
- Check filters, replace if needed or notify the Customer if filters are his responsibility.
- Check discharge air temperature.

Annual Inspection

- Remove panels.
- Clean drain pan.
- Clean strainer on chilled water unit if applicable.
- Check for refrigerant leaks if applicable.
- Check coil pressure drop.
- Clean coils if necessary.
- Drain and clean humidifier pan if applicable.
- Clean and lubricate motor and fan bearings as required.
- Check pulley alignment.
- Check bearings for excessive wear.
- Check filters, replace if needed, or notify the Customer.
- Check reheat coil pressure drop, clean if necessary.

Air Handling Units

General Maintenance Inspections

- Inspections per year, per schedule.
- Regularly and systematically inspect the equipment.
 - Filters (not) changed by_____.
 - Filters (not) supplied by_____.
- Grease bearings, adjust fan-belt tension, inspect condition of belts, lubricate motor, inspect coils and clean, if necessary.

Once Per Year:

- Inspect the unit casing and accessories for paint chipping or corrosion.
- Clean fan wheels and fan shaft.
- Inspect the drain pan for sludge or other foreign material and clear condensate drain line.
- Check damper linkages, set screws and blade adjustment for proper operation.
- Painting by others.

Air Units (Indoor and Outdoor)

General Maintenance Inspections

- Check filters; replace as scheduled.
- Check fan belt tension.
- Grease main fan bearings, if applicable.
- Check dampers, actuators and linkages; adjust and tighten, as necessary.

Annual Maintenance Inspections

- Check filters; replace as scheduled.
- Check fan belt tension.
- Grease main fan bearings, if applicable.
- Check dampers, actuators and linkages; adjust and tighten, as necessary.
- Inspect and clean blower wheel.
- Lubricate main fan motor.
- Check electrical connections for tightness.
- Check bearings, drives, and blower wheels for tightness.
- Check for gas leaks.
- Change flame and spark rods, as necessary.

Gas Burner, Direct-Fired

- Check operation of all gas controls and valves including: manual gas shutoff, petal gas regulator, safety shutoff valve (solenoid), automatic gas valve, petal solenoid valve, butterfly gas valve, motor, and linkage to air louver, and safety petal solenoid (if used).
- Use the manufacturer's instructions, if available.
- Check high limit switch.
- Check burner; clean and adjust; change flame and spark rods, as necessary.
- Start up: check for lifting or yellow-tipping flames. Make adjustments required to correct the problem.

Gas Burners

Annual Inspection

- Check operation of all gas controls and valves including: manual gas shutoff; petal gas regulator; safety shutoff valve (solenoid); automatic gas valve; petal solenoid valve; butterfly gas valve, motor, and linkage to air louver; safety petal solenoid (if used).
- Check flue connections for tight joints and minimum resistance to air flow. Guarantee that combustion chamber, flues, breaching, and chimney are clear before firing.
- Draft regulators should give slightly negative pressure in the combustion chamber at maximum input.
- On forced draft burners, gas manifold pressure requirements should correspond with modulating (butterfly) valve in full open position and stable at *all* other firing rates.
- Take flue gas readings to determine the boiler efficiency.
- Use the manufacturer's instructions if available.
- If efficiency is low, check baffling and passes for short circuiting, and boiler for air infiltration.
- Adjust dampers and controls to optimize efficiency.
- Check burner for flashback and tight shutoff of fuel.
- Check operation of controls. Clean and adjust, if necessary.
- Satisfactory operation and adjustments should conform to manufacturer's instructions.

Oil Burner

Annual Inspection

- Review manufacturer's instructions.
- Test and inspect burner (with or without firing) at rated pressure for leaks.
- Timed trial for ignition for pilots and burners should be in accordance with the instructions in the programmer timer.
- Check operation of automatic controls and combustion flame safeguards for normal operation. There should be no presence of oil discharge, ignition or flame.
- Check pre-ignition purging capability of burner, combustion chamber, boiler passes, and breaching. Stack dampers should be fully open during purge and light-off period.
- Check delivery of fuel in relation to its response to the ignition system. Examine electrodes for carbon build-up, discoloration, distortion, and burning of parts. Clean and adjust as necessary for proper operation.
- Check ignition transformer to supply dependable arc, adjust and regulate as required for clearance and a gap.
- Clean and adjust draft regulator and air shutter on a natural draft burner to ensure excess air quantities are at a minimum for complete combustion.
- Test with flue gas analyzer.
- Check out forced draft fan, clean fan and fan housing, check bearings, pulleys and or couplings and adjust belt tension if required, replace worn belts and lubricate pivot points on linkages as necessary.
- Check and clean filters, water separators, primary and secondary strainers.
- Clean, check operation, and adjust controls and safeties.
- Burners designed to change firing rates automatically should be checked for adequate proportioning changes in fuel and air rates.
- Check oil level sight glass to see that burner maintains proper oil level (within 1/3") at rated output.
- Check to ensure that power cannot feedback and energize ignition devices or feed valves after a control shuts off burner.
- Clean or replace nozzles or cups, and check for tight shutoff of fuel.
- Check stacks for smoke or haze and adjust burner accordingly.
- Take flue gas readings to determine the boiler efficiency.
- Use the manufacturer's instructions if available. If efficiency is low, check baffling and passes for short circuiting, and boiler for air infiltration.
- Adjust dampers and controls to optimize efficiency.

Boiler/Hot Water Heaters

Annual Inspection

- Inspections per year, per schedule.
- Perform seasonal start-up and operating check on boilers.
- Adjust burner combustion and controls, as needed.
- Inspect the fireside of the boiler. If required, clean once per year.
- Full service includes all safety controls, minor burner components and burner regulating valves.
- This agreement does **not** include water flow, water treatment, safety relief valves, tube sheets, cast iron sections, heat exchangers, fire tubes, hand-hole plates and rings, waterside rupture and fireside refractory failure, boiler failure due to negligent acts or corrosion.

Boilers, Hot Water & Steam

Operating inspections will be performed per the agreement schedule. The items listed below and any special tasks required for the specific piece of equipment will be performed.

- Review operating logs and system operation with building engineer.
- Check and inspect gauges, monitors and indicators for any abnormalities.
- Inspect complete pressure vessel, appliances and auxiliaries for signs of leakage.
- Blow down the water and safety column to verify proper operation of low water control and bottom blow down to remove accumulated solids.
- Complete a safety check on all safety pressure controls, low water cut-off controls and flame safeguard controls. Inspect burner flame failure control.
- Run the combustion control system through a sequence of operation.
- Inspect burners, fuel strainers and filters as needed. Inspection of burner should include fuel train and all mechanical and electrical-related equipment for proper operation.
- Inspect all burner settings and linkage.
- Inspect complete fuel train for signs of leakage or abnormalities.
- Inspect all combustion draft devices for correct operation.
- Inspect all combustion doors and closures for signs of leakage or burning.
- Check for adequate combustion air intake.
- Inspect safety relief valves for signs of leakage or damage.
- Inspect all auxiliary equipment including expansion tanks, make-up regulators, pressure-reducing valves and related equipment for proper operation.
- Complete a written work order report on the above work listing any repairs, adjustments done and any required follow up work recommendations.

Complete preventive maintenance inspection will be performed per the following list and the specific manufacturers requirements.

General

- Boilers to be shut off 24 hours prior to starting the annual preventive maintenance work.
- De-energize, tag and lockout all valves and switches to completely isolate the unit.
- Inspect and check all control connections, starter and motor connections for tightness and signs of over- heating, contact pitting & overloads
- Inspect condition of breaching flues, damper and stack base.
- Clean and inspect make-up feed and pressure regulating system.
- Inspect combustion air intake dampers.
- Clean, lubricate and adjust actuator linkage as necessary.
- Check all combustion draft devices for correct operation.
- Dismantle, clean and inspect burners, fuel strainers and filters.
- Inspection of burner should include fuel train and all mechanical and electrical-related equipment for proper operation.
- Check and inspect all burner settings and linkage.
- Inspect complete fuel train for signs of leakage or abnormalities.

Waterside Steam Boilers

- Inspect watersides hand-hole and manhole covers and gaskets for signs of leakage or deterioration.
- Remove all low water cut-off head assemblies, all cross top plugs and flush out deposits.
- Re-install all head assemblies using new gaskets.
- Coat with anti-seize compound. Check all operating control piping for blockage.

Fireside

- Clean and inspect firesides.
- Open all access doors to fireside of boiler as accessible, inspect and clean.
- Clean and inspect refractory, make recommendations for corrections as necessary.
- Wash coat all refractory surfaces as needed and close firesides using an approved sealing method on access doors.

Startup

- Fire boiler and allow time for boiler to warm up from a cold start. Blow down all low water cut-off controls and verify operation.
- Complete a safety and operating control check including all safety controls, low water cut-off controls and flame safeguard controls.
- Inspect safety pressure and relief valves.
- Perform combustion analysis and adjust combustion accordingly. Adjust combustion of burner with flue gas analyzer. Record the following variables: O₂, CO₂, CO, stack temperature, combustion efficiency, smoke, drafts and fuel pressure and temperature.
- Complete a fuel train block and bleed test.
- Complete a pilot turndown test.
- Complete a simulated flame failure on the main flame and pilot.
- Complete a safety check of all fuel oil and/or gas controls.
- Complete a written report on all the above, including the combustion analysis.
- Check that unit and work area is broom clean and that all panels, guards, etc. are secured and tight.
- Complete log sheet with all readings, temperatures, pressures, volts, amps, etc.

NOTES: All external devices; i.e. traps, DA tanks, pressure reducing stations, pumps, etc. are excluded unless specifically noted.

Cast Iron & Hot Water Boilers

- Perform seasonal start-up and operating check on boilers.
- Adjust burner combustion and controls as needed.
- Inspect the fireside of the boiler. If required, clean once per year.
- Full service includes all safety controls, main burner components, and burner regulating valves.
- The agreement does **not** include water flow, water treatment, safety relief valves, tube sheets, cast-iron sections, heat exchanges, fire tubes, hand-hole plates and rings, waterside rupture and fireside refractory failure, boiler failure due to negligent acts or corrosion.

Steam Boilers (Condensate or Vacuum Pump)

- Review manufacturer's instructions.
- Check condensate temperature. It should be approximately 30F.
- (17C) below steam temperature if traps are not leaking.
- Examine flanges for steam leaks, replace gaskets as necessary.
- Pump receiver down.
- Turn condensate to sewer.
- Shut down unit.
- Clean and examine receiver, vent pipe, inlet and discharge openings for corrosion.
- Clean and adjust motor float switch and float operation on high-low water level. Inspect float rods and pressure switches.
- Make any adjustments as necessary.
- Check alignment of motor and pump coupling with straight edge. Align if necessary.
- Lubricate pump and motor.
- Adjust packing glands and change packing when necessary.

Examine vacuum breaker operation.

Condensers, Air-Cooled

- Review manufacturer's instructions.
- De-energize, lock out, and tag electrical circuits.
- Comply with the latest provisions of the Clean Air Act and Environmental Protection Agency (**EPA**) regulations as they apply to protection of stratospheric ozone.
- No intentional venting of refrigerants is permitted. During the servicing, maintenance, and repair of refrigeration equipment, the refrigerant must be recovered.
- Whenever refrigerant is added or removed from equipment, record the quantities on the appropriate forms.
- Recover, recycle, or reclaim the refrigerant as appropriate.
- If disposal of the equipment item is required, follow regulations concerning removal of refrigerants and disposal of the equipment.
- If materials containing refrigerants are discarded, comply with EPA regulations as applicable.
- Refrigerant oils to be removed for disposal must be analyzed for hazardous waste and handled accordingly.
- Closely follow all safety procedures described in the Material Safety Data Sheet (MSDS) for the refrigerant and all labels on refrigerant containers.

Operating Inspection

- Thoroughly inspect exterior of the unit.
- Inspect the coils for cleanliness, brush if necessary.
- Visibly inspect for refrigerant or oil leaks.
- Lubricate fan, and motor bearings as required.
- Check belt tension and alignment.
- Check entering and leaving discharge air on condenser.
- Check liquid line for sub-cooling.
- Check unit for excessive noise or vibration.

Annual Inspection

- Remove debris from airtight and clean underneath unit.
- Pressure-wash coil with coil cleaning solution.
- Straighten fin tubes with fin comb.
- Check electrical connections for tightness.
- Check mounting for tightness.
- Check fan blades and belts. Clean fan blades as necessary.
- Check wires at condenser electrical fused safety switches for tightness and burned insulation. Repair as necessary.

Split System Condensing Units

- Inspections per year, per schedule.
- Make inspections of the system during the operating season. During each visit, check the general operation of the machine; make minor repairs and adjustments.
- Conduct the seasonal start-up and shut down and perform associated preventative maintenance.
- Condenser coils (not) cleaned once per year.
- Fan belts (not) replaced once per year.
- Fan belts (not) supplied once per year.

Air-Cooled Water Chillers

- Inspections per year, per schedule.
- Make inspections of the system during the operating season.
- Check the general operation of the machine; make minor repairs and adjustments.
- Make seasonal start-up and shut down and perform associated preventative maintenance.
- Instruct the operator or his agent in the operation of the system. This will be accomplished during regular inspections.
- Clean condenser coils (once per year).
- During the operating season, clean the air-cooled condenser as necessary to remove fouling.

Circulating Water Pumps

- Inspections per year, per schedule.
- Perform a visual inspection of the pump shaft, bearings, couplings and packing.
- Adjust packing as required.
- Lubricate motor bearings at least once per year.
- Check and clean strainers for each hot water heating pump.

Exhaust Fans

- Inspections per year, per schedule.
- Grease bearings, adjust fan belt tension, inspect condition of belts, lubricate motor and check rotation of fan wheel.
- Replace fan belt once per year if required.
- Inspect condition of sheaves and pulleys.

Fan Coil & Unit Ventilators

- Inspections per year, per schedule.
- Regularly and systematically inspect the equipment.
- Filters (not) changed by
- Filters (not) supplied by
- Grease bearings, lubricate motor, inspect coils and clean, if necessary.
- Once per year, inspect the unit casing and accessories for paint chipping or corrosion. Clean fan wheels and fan shaft. Inspect the drain pan for sludge or other foreign material and clear condensate drain line. Check damper linkage, set screws and blade adjustments for proper operation.
- Painting by others.

Fan - Vaneaxial

Inspections will be performed per the agreement schedule. The items listed below and any tasks required for the specific piece of equipment will be performed.

- Review operation with building engineer.
- Check that the unit is operating with the proper control set points.
- Lubrication of rotating equipment per schedule.
- Check that unit and work area is clean and that all panels, guards, etc. are secured and tight.

A complete preventive maintenance inspection will be performed per the following list. Any tasks required for the specific piece of equipment will be performed.

- Inspect and check all starter and motor connections for tightness and signs of overheating contact pitting & overloads.
- Megger test the motor from the load side of the starter.
- Measure and record motor voltages and amperages.
- Inspect and adjust static pressure controls.

Annually

- Clean the fan rotor assembly; i.e. blades, hub etc.
- Apply proper lubrication to the blade links, blade bearings and the fan motor bearings.
- Inspect the pilot positioner, test for air leaks, calibrate positioner for a 3-15# operating range and check for proper operation.
- Check blade shafts for tightness.
- Check the blade tip clearance.
- Check operation and overall condition of the fan.
- Perform vibration analysis of the fan/motor assembly.
- Furnish a written report of the vibration analysis findings and any further recommendations.
- The balancing of the fan or any other parts or repairs found necessary will be quoted separately at that time or performed on a time and material basis.

Major overhaul: The annual items listed above plus the following:

- Disassemble the fan rotor for thorough cleaning and inspection.
- Inspect blade bearings.
- Check the blade angle and adjust if required.
- Check that unit and work area is clean and that all panels, guards, etc., are secured and tight.
- Perform vibration analysis on the fans and pumps indicated on the schedule, once per year.

HVAC Packaged Units

Operating inspection(s) including startup and shutdown, will be performed per the equipment schedule. The items listed below and any tasks required for the specific piece of equipment will be performed.

- Review operation with building engineer.
- Log all operating conditions. Check for proper condenser and evaporator approaches and ranges. Check oil level, temperature and pressure.
- Look for any signs of oil or refrigerant leaks. Note if there is any unusual amount of noise or vibration.
- Check that the unit is operating with the proper temperature set points.
- Complete the log sheet with all readings, temperatures, pressures, volts, amps, etc.

Complete preventive maintenance inspection(s) will be performed per the schedule using the following list and the specific manufacturer's requirements

- Check coil conditions.
- Check and calibrate safeties.
- Check expansion valves and log superheat.
- Check crankcase heater.
- Check unit charge and log.
- Check evaporator temperature differential.
- Check and clean condensate pan and drain.
- Check economizer operation as required.
- Check motor operation.
- Check and adjust belt(s).
- Check drive condition.
- Check fan condition and proper rotation.
- Check for bearing play.
- Visual inspection of alignment.
- Check contactor and points.
- Check all electrical connections.
- Check heating section.
- Lubricate as required.
- Pressure wash condenser coils.
- Install condensate pan pads/tabs.
- Check control set points.

HVAC RFQ Scope of Work

- Change air filters.

Heating Coils (Preheat or Reheat)

- Check air-pressure drop across coil.
- Vacuum or brush the coil face; if additional cleaning is necessary, notify the Customer.
- Remove obstructions to air flow.
- Inspect coil, report any leaks.
- Test and inspect controls that protect coils against freezing.

Ice Machines

- Provide annual start-up and shut-down of machine.
- Clean and sanitize annually.
- Inspect operation of Solenoid valve; confirm refrigerant charge.
- Confirm operation and adjustment of expansion valve.
- Adjust water-regulating valve.
- Clean air-cooled condenser coils as required.

Pumps

Operating inspection(s) including startup and shutdown, will be performed per the equipment schedule. The items listed below and any tasks required for the specific piece of equipment will be performed.

- Check for proper operating temperatures and pressures.
- Look for any sign of leaks on flanges, gauges, trim fittings, etc.
- Note if there is any unusual noise or vibration.
- Check shaft seal for leakage. On packed seals, check for proper drip rate.

Complete preventative maintenance inspection(s) will be performed per the schedule using the following list and the specific manufacturer's requirements:

- Inspect and check all starter and motor connections for tightness and signs of overheating, contact pitting. Check condition of motor overloads.
- Wipe clean pump and motor removing any scale build up, etc.
- Inspect drive coupling. Lubricate as required.
- Lubricate pump and motor bearings per the manufacturer's recommendations.
- Insure that coupling guards are in place and secure.

NOTES: High voltage starters are excluded unless noted.

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
1	1	TM	1	Both	Condensing Unit	Mitsubishi	PUY-A24NHA2	73U01253B		Gen. Garage	
2	2	TM	1	Both	Condensing Unit	Mitsubishi	PUY-A24NHA2	73U01568B		Roof	
3	3	TM	1	Both	Condensing Unit	Mitsubishi	PUY-A24NHA2	71U00227B		Front of Admin.	
4	4	TM	1	Both	Condensing Unit	Mitsubishi	PUY-A24NHA2	72U00994B		Toll Plaza	
5	5	TM	1	Both	Condensing Unit	Mitsubishi	PU12EK	19800777B		Toll Plaza	
6	6	TM	1	Both	Condensing Unit	Mitsubishi	PU12EK	12D00788B		Toll Plaza	
7	7	TM	1	Spring	Condensing Unit	Trane	CA-5008	L2E165734		Roof	
8	8	TM	1	Spring	Condensing Unit	Trane	CA-5008	L2E165745		Roof	
9	9	TM	1	Spring	Condensing Unit	Trane	CAUCC20G1H0302	COOK30902		Roof	
10	10	TM	1	Both	AC Unit for elevator	Daikin	RXS36HVJU	N/A		Roof	
11	11	TM	1	Spring	Chiller	York	YCAL0014EB17	RLSM020425		Toll Plaza	
12	12	TM	1	Both	Air Handler	York	XTO-030X033BAG017A	CFSM-XT0444		Tunnel	
13	13	TM	1	Both	Air Handler	Trane	SRUA-2506-MA	L79D02704		Roof	
14	14	TM	1	Both	Air Handler	Trane	SRUA-2506-MA	L79B00709		Roof	
15	15	TM	1	Both	Air Handler	Trane	SRUA-2506-MA	L79C02742		Roof	
16	16	TM	1	Both	AC Fan	Trane		J-6788		Roof	
17	17	TM	1	Both	Evap. Unit	Mitsubishi	PK12FK	11G00371B		IT Room - 3rd	
18	18	TM	1	Both	Evap. Unit	Mitsubishi	PK12FK	11G00379B		IT Room - 2nd	
19	19	TM	1	Both	Split System Heat Pump	Mitsubishi	PKA-A24FA	82A01362A		IT Room - 3rd	
20	20	TM	1	Both	Split System Heat Pump	Mitsubishi	PKA-A24FA	73A021G0B		Gen. Garage	
21	21	TM	1	Both	Split System Heat Pump	Mitsubishi	PKA-A24FA	N/A		IT Room - 3rd	
22	22	TM	1	Fall	Boiler	Weil Mclain	Cgi-8-PIN	2		Boiler Room	Gas Fired
23	23	TM	1	Fall	Boiler	Weil Mclain		CP1755654		Maint.	Oil Fired
24	24	TM	1	Fall	Boiler	Weil Mclain	888	CP2313125		Boiler Room	Oil Fired
25	25	TM	1	Fall	Water Heater	State	SB6 82	0923 08791		Maint.	Electric
26	26	TM	1	Fall	Water Heater	Rheem-Ruud	G100-200	URNG1207G01367		Boiler Room	Gas Fired
27	27	TM	1	Fall	Circulating Water Pump	Bell Gussett		part # M80039		Maint.	
28	28	TM	1	Fall	Circulating Water Pump	Marathon	EVJ56T1705530B	part #M99073		Boiler Room	
29	29	TM	1	Fall	Circulating Water Pump	Marathon	EVJ56T1705530B	part # M99073		Boiler Room	
30	30	TM	1	Fall	Circulating Water Pump	Marathon	EVJ56T34D5589B	part # M99100		Tunnel	
31	31	TM	1	Fall	Circulating Water Pump	Marathon	EVJ56T34D5589B	part # M99100		Tunnel	
32	32	TM	1	Spring	Ice Machine	Manitowoc	B320	110869275		Maint.	

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
33											
34	1	NHLT	1	Spring	Condensing Unit (AC 1)	McQuay	ACZ013BS712-ER10	SN#STNU080500188		Outside	Air Cooled
35	2	NHLT	1	Spring	Packaged System	AAON	RK082EO 200301-AKEH9383	SN# 44516		Toll Lanes	
36	3	NHLT	1	Spring	Condensing Unit (AC 2)	Trane	TTA07303000			Boardroom	Air Cooled
37	4	NHLT	1	Spring	Condensing Unit (AC 3)	McQuay	ACZ016BS712 ER1D	SN# STNU080500191		Outside	Air Cooled
38	5	NHLT	2	Both	Heating / Cooling Unit	Diakin	N/A	N/A		IT Room 1 of 2	
39	6	NHLT	1	Both	Heating / Cooling Unit	Canatal	11DX50WHXXXXS	SN#10-0206/C01/01A		IT Room 2 of 2	
40	7	NHLT	1	Both	Heating / Cooling Unit	Mitsubishi	A12NKA7			Telecom Room	
41	8	NHLT	1	Fall	Boiler	Fulton	VMP-W50			Boiler Room	
42	9	NHLT	1	Fall	Water Heater	Bock	72E	SN#21023091T		Boiler Room	
43	10	NHLT	1	Fall	Boiler	Fulton	VMP-W50			Boiler Room	
44	11	NHLT	3	Both	Air Handler (AHU 1,2,3)	McQuay	FB0U806000S2 CAH010GDAC	SN# FB0U08060056, 052, 055		Toll Plaza	
45	12	NHLT	1	Spring	Exhaust Fan	Cook	165-ONH	SN#076599297		Exec Garage	
46	13	NHLT	1	Spring	Exhaust Fan	Cook	210-SONH	N/A		Exec Garage	
47	14	NHLT	1	Fall	Heating Unit	McQuay	LAH002AHH	TLNU80500236		FJT Garage	
48	15	NHLT	1	Fall	Heating Unit	McQuay	LAH002AHH	TLNU080500237		FGM Garage	
49	16	NHLT	1	Fall	Circulating Pump#2	Bell & Gossett	S55JXDYA-2880	SN31610C3E1		Boiler Room	
50	17	NHLT	1	Fall	Circulating Pump#3	Bell & Gossett	P63CKA 2740	SN1632B3E2		Boiler Room	
51	18	NHLT	1	Fall	Circulating Pump#1	Bell & Gossett	P63CKB-2741	SN#160-023		Boiler Room	
52	19	NHLT	1	Fall	Circulating Pump P-1	Bell & Gossett	FI1206E2BAH2LO	SN#EC40910		Boiler Room	
53	20	NHLT	1	Fall	Circulating Pump P-2	Bell & Gossett	FI1206E2BAH2LO	SN#EC40910		Boiler Room	
54	21	NHLT	1	Spring	Ice Machine	Manitowoc	B570	110893394		Garage	

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
55											
56	1	I78	1	Both	Heating / Cooling Unit	Mitsubishi	MR. SLIM	N/A		IT/Telecom/ESS - WC	
57	2	I78	3	Fall	Boiler	Slant Fin	MXT-752	N/A		Boiler Room - WC	
58	3	I78	1	Fall	Domestic Hot Water	Bock	72E			Boiler Room - WC	
59	4	I78	4	Both	Air Handling Unit	Carrier	39M Size 02		800 CFM	Toll Canopy	
60	5	I78	4	Spring	Condensing Unit	Carrier	24AABB34			Toll Canopy	
61	6	I78	1	Both	Air Handling Unit	Carrier	39MN12W02477334XG1	0517U37725	5600 CFM	Welcome Ctr	
62	7	I78	1	Spring	Condensing Unit	Carrier	38AUD205			WC - Outside Pad	
63	8	I78	1	Both	Air Handling Unit	AAON	H3-ARB-8-0-161C	201702-CJWA02363	900 CFM	MG - 005	
64	9	I78	1	Spring	Condensing Unit	AAON	CFA-005-A-A-3-DJ00H	201702-CNCY02367		MG - Outside Pad	
65	10	I78	3	Fall	Boilers	Peerless	SC/SCT-08W/S		630 MBH	MG - 010	
66	11	I78	3	Fall	Circulating Pump# 1, 2, 3	Emerson	P55BLZ-696			MG - 010	
67	12	I78	2	Fall	Circulating Pump# 4,5	Baldor Reliance	EM3154T-8			MG - 010	
68	13	I78	2	Fall	Circulating Pump# 6, 7	US Motor	P83AHN-1328			MG - 010	
69	14	I78	2	Fall	Circulating Pump# 8, 9	Baldor Reliance	VEM31116			MG - 010	
70	15	I78	2	Fall	Circulating Pump# 10, 11	US Motor	P63GYB-4803			MG - 010	
71	16	I78	2	Both	Energy Recovery Units	Swegon	Swegon Gold PX30	G03006291	5500 CFM	MG - 012 & 021	
72	17	I78	1	Both	Fan Coil Unit	Mitsubishi	PEFY-P72NMUSU-E		2500 CFM	MG - 013 - IT Room Secondary	
73	18	I78	2	Both	Fan Coil Unit	Mitsubishi	PEFY-P18NMAU-E3		650 CFM	MG - 023	
74	19	I78	2	Both	Fan Coil Unit	Mitsubishi	PEFY-P15NMAU-E3		550 CFM	MG - 004 & 023	
75	20	I78	1	Spring	Condensing Unit	Mitsubishi	PUHY-P22YLMU-A	6XW00128		MG - Outside Pad	
76	21	I78	1	Spring	Condensing Unit	Mitsubishi	PURY-P72YLMU-A	52W000502		MG - Outside Pad	
77	22	I78	1	Both	CRAC - Unit	Stulz	OHS-120-DAR	10300110	3900 CFM	MG - Mezzanine	
78	23	I78	1	Both	Condensing Unit	Stulz	SCS-096-144-D	444610_70		MG - Outside Pad	
79	24	I78	2	Fall	Unit Heater	Reznor	WS - 85		76 MBH	MG - 001	
80	25	I78	1	Fall	Unit Heater	Reznor	WS - 33		25 MBH	MG - 005	

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
81											
82	1	EP	1	Both	Split System Heat Pump	Mitsubishi	MR. SLIM	SN#BC79M553H02		ESS Room	
83	2	EP	1	Both	Heating / Cooling Unit	Mitsubishi	MR. SLIM	SN#BG79T851H03		IT Room	
84	3	EP	1	Spring	Packaged System Unit	Sharp	CV10NH	SN#8638418			
85	4	EP	1	Both	Air Compressor	Air-Q-Jet	325-14	SN#112440L			
86	5	EP	1	Both	Air Handler	Trane	TWE120				
87	6	EP	1	Both	Air Handler	Trane	TWE120				
88	7	EP	3	Fall	Gas Burner	Gordon- Piatt	RG.3-G-05 Natural Gas	SN# AJ298924, 25, 26			
89	8	EP	2	Fall	Boiler	Riello	AR-1000				
90	9	EP	1	Fall	Boiler	Riello	AR-1000				
91	10	EP	1	Spring	Condenser, Air Cooled	Trane	TTA120J3				
92	11	EP	1	Spring	Condenser, Air Cooled	Trane	TTA120J3				
93	12	EP	1	Both	Condenser, Air Cooled	Mitsubishi	PUY-A24NHA2	SN#73U01513B			
94	13	EP	1	Both	Condenser, Air Cooled	Mitsubishi	PU12EK1	SN# 21000455B			
95	14	EP	1	Fall	Circulating Water Pumps	TACO	120-13 05/03	N/A			
96	15	EP	1	Fall	Circulating Water Pumps	TACO	120-13 06/03	N/A			
97	16	EP	1	Fall	Circulating Water Pumps	TACO	120-13 12/93	N/A			
98	17	EP	1	Fall	Circulating Water Pumps	TACO	111-B8 02/04	N/A			
99	18	EP	1	Fall	Circulating Water Pumps	Armstrong	816027-022	N/A			
100	19	EP	1	Fall	Circulating Water Pumps	Armstrong	816027-022	N/A			
101	20	EP	1	Fall	Circulating Water Pumps	Bell & Gossett	102218 2-1/2"	N/A			
102	21	EP	1	Both	Ice Machine	Franklin Ind.	F1M2000A	SN#801100057			
103											
104	1	PC	1	Fall	Boiler	Burnham	PF-504	SN#7582165		Basement	Oil Fired
105	1	PC	1	Fall	Circulating Water Pumps	Armstrong	5KH33DN5687DX	TSJ260273		Basement	
106	1	PC	1	Fall	Circulating Water Pumps	Taco	P55DHJ-1579	1612E3E1		Basement	
107	2	PC	1	Fall	Furnace	Jackson/ Church	OL-560-S39	SN#725-2460		Maint Garage	Oil Fired
108	3	PC	1	Fall	Furnace	Jackson/ Church	OL-560-S39	SN#725-2461		Maint Garage	Oil Fired
109	4	PC	1	Spring	Air Conditioner Unit	Trane	TTA120J300AA	SN#17474LMMYA	10 Ton	Outside	
110	5	PC	1	Spring	Air Conditioner Unit	Trane	TTA090G300AA	SN#17472NT8YA	7.5 Ton	Outside	
111	6	PC	1	Spring	Air Conditioner Unit	Mitsubishi	PUY-A24NHA2	SN#73U01455B		Outside	Same unit
112	7	PC	1	Both	Air Conditioner Unit	Mitsubishi	PKA-A24FA	SN#73A02170B		IT/Telecom/ESS	Same unit
113	8	PC	1	Both	Air Handler	Trane	TWE120D300AB	SN#17513NJFBA		Basement	
114	9	PC	1	Both	Air Handler	Trane	TWE090D300AB	SN#17514TXBA		Basement	

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
115											
116	1	DWG	1	Fall	Boiler	Burnham	PF-506	SN#7583162		Basement	Gas Fired
117	2	DWG	1	Fall	Burner	Burnham	R6.2-0-03	SN#S6056		Basement	
118	3	DWG	1	Fall	Furnace - HV-1	Reznor	SHH-360E			New Maint. Garage	Gas Fired
119	4	DWG	1	Fall	Furnace - HV-2	Reznor	SHH-260D			Maint. Garage	Gas Fired
120	5	DWG	1	Fall	Furnace - HV-3	Reznor	SHH-260D			Main Bldg Garage	Gas Fired
121	6	DWG	1	Fall	Furnace	Carrier	59MN7B			Main Bldg Garage Offices	Gas Fired
122	7	DWG	1	Spring	Air Conditioner Unit	Carrier	24ANA1			Outside	
123	8	DWG	1	Spring	Air Conditioner Unit	Mitsubishi	PUY-A24NHA2	SN#73UO14408		Outside	
124	9	DWG	1	Both	Air Conditioner Unit	Mitsubishi	PKA-A24FA	SN#73A02155B		IT/Telecom/ESS	
125	10	DWG	1	Spring	Air Conditioner Unit	Trane	TTA090G300AA	SN#17475SM6YA	7.5 Ton	Outside	
126	11	DWG	1	Spring	Air Conditioner Unit	Trane	TTA120J300AA	SN#17465JPYA	10 Ton	Outside	
127	12	DWG	1	Both	Air Handler	Trane	TWE120D300AB	SN#18023WXHBA		Basement	
128	13	DWG	1	Both	Air Handler	Trane	TWE090D300AB	SN#17514SA8BA		Basement	
129											
130	1	MM	1	Fall	Boiler	Weil McLain	Model 80 Series1	N/A		Basement	Oil Fired
131	2	MM	1	Fall	Furnace	Jackson/ Church	OL-560-539RH	SN#725-2778		Main Garage	Oil Fired
132	3	MM	1	Fall	Furnace	Magic Chef	LPA196-1	SN#A-12218EHB		Outer Garage	Oil Fired
133	4	MM	1	Fall	Circulating Water Pumps	Armstrong	H-41 MF/BF	P/N: 174035MF - 113			
134	5	MM	1	Fall	Circulating Water Pumps	Grundfos	UP 15-42F	P/N: 59896155 P1			
135	6	MM	1	Fall	Circulating Water Pumps	Grundfos	UP 43-75F	P/N: 52722373 P1			
136	7	MM	1	Both	Air Conditioner Unit	Mitsubishi	PUY-A24NHA2	SN#73U01446B		Outside	
137	8	MM	1	Both	Air Conditioner Unit	Mitsubishi	PKAA24FA	SN#89A00724D		IT/Telecom/ESS	
138	9	MM	1	Spring	Air Conditioner Split	Johnson Control	DHM36CMB21S	DOH2102178		Outside Condenser	
139	10	MM	1	Both	Air Conditioner Split	Johnson Control	DHMW12NKB21S	3 - Cassette Units		Kitchen/Shop	
140	11	MM	1	Spring	Air Conditioner Unit	Trane	TTA120J300AA	SN#17381MX9YA	10 Ton	Outside	
141	12	MM	1	Spring	Air Conditioner Unit	Trane	TTA090G300AA	SN#17344K9PYA	7.5 Ton	Outside	
142	13	MM	1	Both	Air Handler	Trane	TWE120D300AB	SN#17403WP6BA		Basement	
143	14	MM	1	Both	Air Handler	Trane	TWE090D300AB	SN#17342LW6BA		Basement	
144	15	MM	1	Both	Heating / Cooling Unit	AAON	RM-A04-80DA01-14A	SN#200806-AMED12046		Toll Plaza	Electric

Delaware River Joint Toll Bridge Commission
Request for Quotation - (ATTACHMENT C)
HVAC Equipment List Includes & Not Limited To The Following Items

M #	#	Facility (A)	Quantity	Frequency(B)	System Component	Manufacturer	Model	Serial #	Rating	Location	Comment
145											
146	1	SF	2	Fall	Pumps - Heating Water	Balder Reliance	EM2394T-G (Cat. No.)	09J359Z602G1 (Spec. No.)		AHU Room 125	Two units, adjacent to boilers
147	2	SF	3	Fall	Boilers	Lochinvar Crest Condensing Boiler	FBN1001	1848112663013; 1848112663016; 1848112663018		AHU Room 125	Natura gas.
148	3	SF	1	Fall	Domestic Water Heater	Bradford White	EF100T150E3NA2	144541; SL42512740		AHU Room 125	Natural gas, has timer for circulating pump and mixing valve.
149	4	SF	1	Both	Energy Recovery Unit	RenewAire	RD2XIN	L18 1602C; 068057 (SO#); 39129-0000 (JO#)		AHU Room 125	Located in the rear of the room.
150	5	SF	1	Both	Water Softner	Express LLC	1665			AHU Room 125	Located in the rear of the room.
151	6	SF	2	Both	Pumps - Chilled Water	Balder Reliance	EM4106T-G (Cat. No.)	09J359Z601G1 (Spec. No.)		AHU Room 145	Two units located across from the Chiller Unit, adjacent to exterior door
152	7	SF	2	Both	Chiller	Trane	RTWD 080F 2H02 A1A1 AA2A 1A1Y 1E1A 4B00 3000	U19B03030; U19B03031		AHU Room 145	Two units located at entrance of the room.
153	8	SF	1	Both	Energy Recovery Unit	RenewAire	RD4XIN	L18 1603C; 068057 (SO#); 39130-0000 (JO#)		AHU Room 145	Located behind the chiller units
154	9	SF	2	Both	Pumps - Cooling Tower	Balder Reliance	EM2333T-G (Cat. No.)	09J359Z910G1 (Spec. No.)		AHU Room 145	Located behind the energy recovery unit (back corner of room)
155	10	SF	1	Both	Cooling Tower	Baltimore Air Cooling	S15R-1285-06JN/W	U190415101-01-01		Outside	Located in the back of the building
156	11	SF	2	Both	Computer Room Air Conditioner	STULZ Compressor	CFU-070-D2A-W-IT	10308512-13		Outside	Located in the back of the building
157	12	SF	2	Both	Computer Room Air Conditioner	STULZ Blower	SCS-MC-128-DEC-02	10308512-14		Server Room 252	Located on the second floor in the IT Department
158	13	SF	2	Both	FCU	CARRIER	42DCA18				Rooms 134, 145, 145, 227
159	14	SF	9	Both	FCU	CARRIER	42CEA02				Rooms 136, 219, 237, 230, 234, 242, 243, 244, 251
160	15	SF	6	Both	FCU	CARRIER	42CEA03				Rooms 114, 131, 223, 228, 241, 247
161	16	SF	7	Both	FCU	CARRIER	42CEA04				Rooms 115, 111, 137, 142, 222, 240, 254
162	17	SF	1	Both	FCU	CARRIER	42CEA06				Room 128
163	18	SF	8	Both	FCU	CARRIER	42DCA06				Rooms 113, 124, 126, 214, 229, 238, 254
164	19	SF	5	Both	FCU	CARRIER	42DCA08				Rooms 135, 238, 215, 225, 232
165	20	SF	2	Both	FCU	CARRIER	42DCA14				Rooms 218, 229
166	21	SF	4	Both	FCU	CARRIER	42DCA18				Rooms 134, 145, 145, 227
167	22	SF	8	Both	FCU	CARRIER	42DCA20				Rooms 111, 131, 134, 236, 218, 248, 248, 255
168	23	SF	1	Both	FCU	CARRIER	42SMA20				Room ST1-1
169	24	SF	2	Both	FCU	CARRIER	42CAA04				Rooms ST2-1, ST#-1
170	25	1799	1	Both	Air Handler	Trane	TAM9A0C48V1DAA	18394L451V		Basement	Basement accessible from exterior stairs
171	26	1799	1	Spring	Compressor	Trane	4TWR7048A1000DA	183457MG2F		Outside	
172											
173	1	BM-AET	2	Fall	Boilers	Lochinvar	KHB110N	1843 112285004; 1843 112285007		Second floor	Second floor, 2 units
174	2	BM-AET	1	Both	Trane	Blower	BCHD072C1L0A2A24Z	T18K40971		Second floor	Second floor mechanical room
175	3	BM-AET	1	Spring	Trane	Compressor	4TTR4060L1000AA	1911464R5F		Roof	Roof of building
176	4	BM-AET	2	Both	Vertiv Liebert PFH	Condenser	FFH020A-PLN	Y19AG1A133; Y19AG1A132		Roof	Roof of building, 2 units
177	5	BM-AET	2	Both	Vertiv Liebert DataMate	Blower	DME020E-PHN	Y19A30A041; Y19A30A040		2nd & 3rd floor Tele/AET Rooms	1 unit on the second floor and 1 unit on the third floor

QUOTE SUBMISSION FORM (Attachment C)

2023-25 HVAC PREVENTATIVE MAINTENANCE AND EMERGENT SERVICES

Delaware River Joint Toll Bridge Commission (DRJTBC)

Southern Region

	Site / Address	Point of Contact	Routine Maintenance Two (2) Routine Visits, Spring and Fall	Hourly Rate for On-Call Services & Equipment Replacement Markup %
1	Morrisville Administration Building (TM) 101 Wood & Grove Streets Morrisville, PA 19067	Larry Dubin (267) 767-6279	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
2	Administration Building at Scudder Falls (AB@SF) 1199 Woodside Road Yardley, Pa. 19067	Mike Schermerhorn (267) 397-0815	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
3	Bridge Monitor/ All Electronic Tolling(BM/AET) 1599 Woodside Road Yardley, Pa. 19067	Mike Schermerhorn (267) 397-0815	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
4	New Hope Executive Offices (NHLT) 2492 River Road New Hope, PA 18938-9519	Rick Slack (215) 630-9726	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:

Central Region

	Site/Address	Point of Contact	Routine Maintenance (Two (2) routine visits, Spring and Fall	Hourly Rate for On-Call Services & Equipment Replacement Markup %
1	I-78 Toll Bridge Administration Building (I-78) 14001-1 Cedarville Road Easton, PA 18042	Bob Varju (908) 319-7349	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
2	EP Toll Bridge Administration Building (EP) 76 Broad Street Phillipsburg, NJ 08865	Nat Amato (908) 319-7349	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:

Northern Region

	Site / Address	Point of Contact	Routine Maintenance (Two (2) routine visits, Spring and Fall	Hourly Rate for On-Call Services & Equipment Replacement Markup %
1	PC Toll Bridge Administration Building (PC) 1 Bridge Approach Road (Route 611 & Toll Plaza) Portland, PA 18351	Bill Kresge (570) 202-2143	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
2	DWG Toll Bridge Administration Building (DWG) 60 Delaware Avenue Delaware Water Gap, PA 18327	Jim Gower (570) 854-8202	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:
3	MM Toll Bridge Administration Building (MM) 112 Route 206 Milford, PA 18337	Matt Meeker (570) 807-6055	Base: Option Year 1: Option Year 2:	Hourly Rate: Parts/Equipment:

**DELAWARE RIVER JOINT TOLL BRIDGE COMMISSION
PURCHASE ORDER
INSURANCE / INDEMNITY REQUIREMENTS
(For HVAC RFP 02-2022)**

Insurance:

Prior to the commencement of any work under the Purchase Order, and for the duration of the work (unless otherwise stated herein), Vendor (hereinafter the "Covered Party") shall, at its sole expense, maintain the following insurance on its own behalf, at the required limits outlined below, with an insurance company or companies having an A.M. Best Rating of A-: Class VII or better, and furnish to the Commission Certificates of Insurance and endorsements evidencing same.

1. Workers Compensation and Employers Liability:

- a) Workers Compensation Coverage: statutory
- b) Employers Liability Limits not less than:
 - Bodily Injury by Accident: \$500,000 each accident
 - Bodily Injury by Disease: \$500,000 each employee
 - Bodily Injury by Disease: \$500,000 policy limit
- c) U.S. Longshoremen's and Harbor Workers' and Maritime Coverages, where applicable.
- d) No proprietor, partner, executive officer, or member may be excluded from coverage.

2. Commercial General Liability:

- a) (including Premises - Operations, Independent Covered Partys, Products/Completed Operations, Contractual Liability (including Liability for Employee Injury assumed under a Contract), Personal Injury,
- b) Occurrence Form with the following minimum limits:
 - (1) General Aggregate: \$2,000,000
 - (2) Products/Completed Operations Aggregate: \$2,000,000
 - (3) Each Occurrence: \$1,000,000
 - (4) Personal and Advertising Injury: \$1,000,000
 - (5) Medical Payments \$5,000

3. Commercial Automobile Liability:

- a) \$1,000,000 Per Accident Combined Single Limit
- b) Coverage at a minimum for "Owned Autos", "Hired Autos", and "Non-owned Autos"
- c) Physical Damage Coverage must be included or self-insured as the Commission is not responsible for any property damage to the Covered Party's vehicles.
- d) If hauling hazardous waste, the Policy must include Form MCS-90-Endorsement for Motor Carrier Policies of Insurance for Public Liability under Sections 29 and 30 of the Motor Carrier Act of 1980.

4. Contractor Pollution Liability Coverage:

The following insurance shall be required for Contracts that involve waste and recycling services:

- a) Limits of Insurance:
 - 1) \$1,000,000 Per Occurrence/Per Claim
 - 2) \$2,000,000 Per Occurrence/Per Claim – Policy Aggregate
- b) The Contractor Pollution Liability insurance shall include coverage for, without limitation Clean-Up Costs, 3rd Party Bodily Injury/Property Damage, Non-Owned Disposal Site, Transportation, and Legal Defense Expense.

5. Commercial Excess/Umbrella Liability:

- a) Occurrence Limit: \$5,000,000
- b) Aggregate Limit (where applicable): \$5,000,000
- c) Policy to apply excess of the Commercial General Liability, Commercial Automobile Liability and Employers Liability Coverages.
- d) The Commercial Excess/Umbrella Liability Policy shall be at a minimum following form.

6. Property of Covered Party:

All property, including, but not limited to, tools and equipment that the Covered Party has at the job site or is owned by the Covered Party is the responsibility of the Covered Party. The Commission assumes no responsibility for the protection, maintenance, or repair of any property that the Covered Party has at the job site or that is owned by the Covered Party including, but not limited to, tools or equipment.

Additional Insureds:

The Commercial General Liability and Automobile Liability policies shall be endorsed by the insurer to include the Commission, the Commonwealth of Pennsylvania and the State of New Jersey as ADDITIONAL INSUREDS on a primary and non-contributory basis.

Waiver of Rights of Subrogation:

All policies, including Workers' Compensation and Employers Liability (where permitted), shall be endorsed by the insurer to waive its rights and subrogation against the Commission and all Additional Insureds.

No Insured vs. Insured or "Cross Suits" Exclusion

Commercial General Liability and Umbrella/Excess policies must not contain an Insured vs Insured or "Cross Suits" Exclusion. If such exclusion is on the policy, it must apply only to "Named Insureds".

Certificate of Insurance:

Prior to commencement of the work under the Purchase Order and at each insurance renewal date during the term of the work, the Commission shall be provided with current certificates of insurance. These certificates or policies shall name the Commission, the Commonwealth of Pennsylvania, the State of New Jersey, and their respective commissioners, servants, employees, agents, assigns and affiliates as additional insureds and shall contain a provision that the coverage's afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commission. With the certificate, the Covered Party shall provide policy endorsements for Additional Insured, Primary and Noncontributory Basis, and Waiver of Subrogation.

Failure by the Commission to obtain the certificates shall not be deemed a waiver of the

obligation to obtain and furnish certificates. The Commission shall have the right to inspect the original insurance policies.

The certificate must evidence, at a minimum:

1. All Deductibles and Self-Insured Retentions.
2. The Additional Insureds on a primary and non-contributory basis. The Additional Insured endorsement(s) must be included with the certificate
3. Waiver of Subrogation applies. Endorsements must be included.
4. No Cross-Suits Exclusions, or apply only to named insureds. Exclusion endorsement must be included, if applicable.
5. 30 Days Notice, by Certified Mail - Return Receipt Requested, of Cancellation, Nonrenewal, modification or material change to the policies.

Change in Financial Rating:

Should any insurance company placing coverage for a coverage for the Covered Party fall below an A-: Class VIII rating by A.M. Best, the Commission shall be notified as soon as reasonably possible.

Indemnity Agreement:

To the fullest extent permitted by law, the Covered Party agrees to indemnify, defend and hold the COMMISSION, the Commonwealth of Pennsylvania, the State of New Jersey and their respective commissioners, servants, employees, agents, assigns and affiliates (collectively, the "Indemnified Parties") harmless from and against, any and all liabilities, losses, claims, damages, and expenses including, without limitation, costs of investigation and defense, expert witness fees, legal fees (e.g., fees of attorneys, paralegals and other legal professionals), expenses and diminution of value, whether or not involving a third party claim, arising out of or in any manner connected with the work or services to be performed for the Indemnified Parties, including, but not limited to, work or services performed under this Purchase Order or under any Change Order, or any such other work or services performed for the Indemnified Parties, even for and if caused in whole or in part by any act, omission or negligence of the Indemnified Parties.

It is expressly agreed that the indemnification contained in this Purchase Order covers claims against the Indemnified Parties made by employees of Covered Party.

If there are any liabilities, losses, claims, damages or expenses of any kind or nature unsettled when the Purchase Order has been fulfilled or completed, any unpaid amounts owed by the COMMISSION to the Covered Party shall be deferred until all such liabilities, losses, claims, damages or expenses are: (1) settled; (2) evidence of

insurance coverage acceptable to the COMMISSION or indemnification acceptable to the COMMISSION is provided by the Covered Party's insurance carrier; or (3) a bond acceptable to the COMMISSION is provided by the Covered Party to secure payment of all liabilities, losses, claims, damages and expenses owed by the Covered Party to the COMMISSION.

The terms and conditions of this indemnity agreement shall survive any cancellation, expiration or termination of the Purchase Order. The laws of the Commonwealth of Pennsylvania shall apply to the construction of the indemnification set forth above without regard to any conflicts of laws provisions.

Regulatory Authority

The Covered Party's insurance policies can not contain any provision requiring compliance with any regulatory authority that pertains to its agreement with the COMMISSION or the COMMISSION's operations.

The covered party shall not report any functions pertaining to its contract with the COMMISSION or results of such functions to any regulatory authority.