

# Durham Arts Council - Facility Maintenance Plan

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**MBP** Facility Pilot  
MANAGING BUILDING PORTFOLIOS

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Introduction and Instructions

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## Consolidated Maintenance Tasks

### PREVENTIVE MAINTENANCE PLAN

#### TASKS AND TASK FREQUENCY

Specification Number	Unit Number	Sub Component Number	Sequential Task Number	Preventive Task Description	Task Frequency				
					Monthly	Quarterly	Semi-Annually	Annually	Other
<b>Air Handling Units</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
237313	X	1	1	Clean exterior of air handler cabinet.				•	
237313	X	1	2	Inspect doors, handles, latches and hinges for proper operation.				•	
237313	X	1	3	Inspect door gaskets for damage and proper seal.				•	
237313	X	1	4	Inspect panels for damage.				•	
237313	X	1	5	Inspect air hoods and air louvers for damage and debris.			•		
237313	X	1	6	Inspect bird screens for damage, dirt and debris.			•		
<b>02. Fans (Fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
237313	X	2	1	Clean fan housing segment and fan assembly (supply, return, exhaust)				•	
237313	X	2	2	Check fan housing, wheel, shaft, frame, inlet vanes and bearings for damage, wear, loose parts, dirt and debris.				•	
237313	X	2	3	Check fan base, vibration isolators and thrust restrainers for damage, wear, loose parts, dirt and debris.				•	
237313	X	2	4	Check flex connector for damage and wear.				•	
<b>03. Filters (Air, Water, Inline, Particulate, HEPA, etc.)</b>									
237313	X	3	1	Check the cleanliness of the filters and replace or clean as required.	•				
237313	X	3	2	Check filter frames (filter tracks) for residual contaminants and clean as necessary.		•			
237313	X	3	3	Verify filter gauge and/or switch function properly.	•				
<b>04. Drive Assemblies (V-Belts, Sheaves, Gear Boxes, Drive Bearings, Shafts, etc.)</b>									
237313	X	4	1	Check drive kit for damage, loose parts, wear, and dirt.		•			
237313	X	4	2	Check belt tension and sheave alignment.		•			
237313	X	4	3	Lubricate fan bearings.					
237313	X	4	4	Check condition of extended lubrication lines when present.			•		
<b>05. Motors</b>									
237313	X	5	1	Check adjustable fan motor base and mounting hardware for loose parts or damage.				•	
237313	X	5	2	Check motor for leaking bearing seals.				•	
237313	X	5	3	Check motor for external housing or shaft damage.				•	
237313	X	5	4	Check for dirt, dust & debris in air vents on motor's cooling fan housing.				•	
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
237313	X	7	1	Clean heating, cooling, and dehumidification coils.				•	
237313	X	7	2	Clean condensate drain pan, trap, drain line and adjacent wetted surfaces.				•	
237313	X	7	3	Check priming of the condensate drain trap				•	
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
237313	X	9	1	Check, clean and calibrate controls.			•		
<b>Auto Transfer Switches</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
236600	X	1	1	**Inspect switch for any accumulation of dust, dirt or moisture. If necessary clean by using a vacuum or wiping with a dry cloth or soft brush. (DO NOT USE A BLOWER)	•				

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236600	X	1	2	**Inspect mechanical integrity to verify there are no loose, broken or badly worn parts.	●				
236600	X	1	3	**Inspect the operating mechanism of the transfer switch to verify debris has not contaminated the mechanism. Clean and lubricate with Lubriplate 105.	●				

**37. Batteries**

236600	X	37	1	**Replace the COT battery (if equipped).					3-5 Years
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**42. Electrical Service (Power Panels, Switches, Controls, Transformers, etc.)**

236600	X	42	1	**Remove transfer switch barriers and check the condition of the contacts. Any surface deposits must be removed with a clean cloth. (DO NOT USE EMERGENCY CLOTH OR A FILE)	●				
236600	X	42	2	**Inspect contacts. If contacts are pitted or worn excessively, replace the contacts.	●				
236600	X	42	3	**Test the system periodically under load conditions on a schedule acceptable to the authority having jurisdiction (AHJ). The test shall be conducted or witnessed by the AHJ.	●				Coordinate with the AHJ.

**Backflow Preventers**

**45. Utility Service Components (Valves, Meters, Switchgear, etc.)**

221119	X	45	1	Disassemble the backflow preventer assembly, and clean all parts thoroughly with water.					●
221119	X	45	2	Inspect rubber seal rings and o-rings for damage. Replace as required.					●
221119	X	45	3	Perform manufacturer's recommended servicing for the relief valve as described in the O&M manual's "Maintenance Instructions."					●
221119	X	45	4	Perform manufacturer's recommended servicing for the check valves as described in the O&M manual's "Maintenance Instructions."					●
221119	X	45	5	Test the reduced pressure backflow assembly after completion of maintenance tasks to verify proper operation.					●



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<b>01. Unit Cabinet, Housing, or Enclosure</b>									
235216	x	1	1	Check boiler area to ensure materials are not stored near or next to boiler.	•				
235216	x	1	2	Check Temperature/Pressure Gauge.	•				
235216	x	1	3	Check for water leaks.	•				
235216	x	1	4	Observe operation of boiler during heating cycle. Record and report any abnormal operational conditions.	•				
235216	x	1	5	Inspect interior of cabinet, clean and vacuum as necessary.		•			
235216	x	1	6	Check condensate drain line for blockage.	•				
235216	x	1	7	Clean condensate trap and re-prime.		•			
<b>02. Fans (Fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
235216	x	2	1	Clean blower wheel				•	
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
235216	x	9	1	Measure flame detector signal. (7 Micro-Amps at high fire)				•	
235216	x	9	2	Perform Start-Up checkout procedure.				•	
235216	x	9	3	Check control settings				•	
235216	x	9	4	Check wiring and connections				•	
<b>13. Pumps (Impeller, Volute, Mounting, Seals, Shaft, Bearings, etc.)</b>									
235216	x	13	1	Check pressure relief valve for leakage or damage.	•				
235216	x	13	2	Operate pressure relief valve. Check to see if valve closes and seals after operation.				•	
235216	x	13	3	Check low water cutoff switch.	•				
235216	x	13	4	Check low water reset switch.	•				
<b>14. Water Circulating Loops (Heating, Cooling, Domestic)</b>									
235216	x	14	1	Check system expansion tank		•			
235216	x	14	2	Check boiler water piping for leaks		•			
235216	x	14	3	Check automatic air vents for leakage or damage.	•				
<b>21. Fuel Piping Systems (Valves, Controls, Safeties)</b>									
235216	x	21	1	Check boiler natural gas piping for leaks				•	
<b>22. Burners and Burner Assemblies</b>									
235216	x	22	1	Remove and clean burner				•	
235216	x	22	2	Clean heat exchanger				•	
235216	x	22	3	Check ignition and flame sense.				•	
235216	x	22	4	Inspect flame for stability and uniformity.				•	
<b>31. Ductwork (Vent and Combustion Air)</b>									
235216	x	31	1	Check Vent Piping Integrity. Check for leaks, cracks, or damage.	•				
235216	x	31	2	Check Combustion Air Piping Integrity. Check for cracks or damage.	•				
235216	x	31	3	Check Vent and Combustion Air termination screens for blockage, debris, or damage.	•				



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<b>Chillers - Air Cooled</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
236426	x	1	1	Check the integrity of the unit cabinetry, access doors, and mounting and anchoring hardware.	•				
236426	x	1	2	Check for dirt or moisture inside the Control Panel.		•			
236426	x	1	3	Check Door Gasket sealing integrity.		•			
236426	x	1	4	Inspect unit for water leaks.	•				
<b>02. Fans (fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
236426	x	2	1	Check operation of condenser fans.	•				
236426	x	2	2	Inspect fans for loose or missing fan blades.		•			
236426	x	2	3	Inspect fan blade guards.		•			
<b>05. Motors</b>									
236426	x	5	1	Inspect condenser fan motor's mounting and operation.		•			
236426	x	5	2	Inspect condenser fan motors for bearing noise.		•			
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
236426	x	7	1	Check Condenser Coils for dirt / debris and clean as necessary.	•				
236426	x	7	2	Perform coil cleaning and passivation.					
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
236426	x	9	1	Check Programmable Operating Set points and Safety Cutouts. Assure they are correct for the application.		•			
<b>14. Water Circulating Loops (Heating, Cooling, Domestic)</b>									
236426	x	14	1	Check Glycol concentration on Low Temp. or other applications where freezing may be a problem.				•	
236426	x	14	2	Glycol Change					•
<b>34. Compressors, (Refrigerant)</b>									
236426	x	34	1	Check Oil Level in Oil Separator Sight Glass	•				
236426	x	34	2	Check Liquid Line Sight Glass/Moisture Indicator	•				
236426	x	34	3	Record System Operating Temperatures & Pressures	•				
236426	x	34	4	Check Compressor and Evaporator Heater operation		•			
236426	x	34	5	**Check Superheat on the Evaporator and the Economizer feed to the Compressor			•		
236426	x	34	6	**Check Condenser Sub-cooling			•		
236426	x	34	7	**Leak check the Chiller			•		
236426	x	34	8	**Sample Compressor Oil, check for Acid, and replace if necessary.				•	
236426	x	34	9	**Disconnect Power Source and Lock Out. Check tightness of Power Wiring connections.					•

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<b>Converters</b>										
01. Unit Cabinet, Housing, or Enclosure										
238233	x	1	1	Inspect unit housing and clean as necessary.			●			
07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)										
238233	x	7	1	Inspect coil fins for dirt and debris, clean as necessary			●			
238233	x	7	2	Inspect piping system for leaks and corrosion			●			
09. Controls - Electronic (Sensors, Valves, Operators, etc.)										
238233	x	9	4	Check operation of unit controls			●			



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<b>Duct Heater - Electric</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
000000	x	1	1	Inspect unit housing and clean as necessary.			●		
<b>08. Coils (Electrical Heating Coils)</b>									
000000	x	8	1	De-Energize and Lock-Out Electrical Service			●		
000000	x	8	2	Inspect electrical heating coils for dirt and debris, clean as necessary.			●		
000000	x	8	3	Inspect electrical system for loose wires, burnt conductors, broken heating coils.			●		
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
000000	x	9	1	Check operation of controls and sensors.			●		

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Specification Number	Unit Number	Sub Component Number	Sequential Task Number	Preventive Task Description	Task Frequency				
					Monthly	Quarterly	Semi-Annually	Annually	Other
<b>Duct Heater - Hydronic</b>									
000000	x	1	1	Inspect unit housing and clean as necessary.			●		
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
000000	x	7	1	Inspect coil fins for dirt and debris, clean as necessary			●		
000000	x	7	2	Inspect piping system for leaks and corrosion			●		
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
000000	x	9	1	Check operation of controls and sensors.			●		



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<b>Emergency Generator</b>										
<b>01. Unit Cabinet, Housing, or Enclosure</b>										
269213	x	1	1	General set inspection.	●					
269213	x	1	2	Check all hardware (fittings, clamps, fasteners, etc.)	●					
269213	x	1	3	Check generator radiator air inlet	●					
269213	x	1	4	Check generator air outlet	●					
<b>04. Drive Assemblies (V-Belts, Sheaves, Gear Boxes, Drive Bearings, Shafts, etc.)</b>										
269213	x	4	1	Check drive belt	●					
<b>12. Operational Safeties (Safety Interlocks, Relief Valves, etc.)</b>										
269213	x	12	1	Test rupture basin leak detect switch				●		
<b>20. Engines (Gasoline, Natural Gas, Propane, Diesel)</b>										
269213	x	20	1	Check engine oil level	●					
269213	x	20	2	Check coolant level	●					
269213	x	20	3	Check coolant heater(s)	●					
269213	x	20	4	Check radiator hoses for wear and cracks	●					
269213	x	20	5	Check air cleaner (replace as necessary)			●			
269213	x	20	6	Drain fuel filter(s)			●			
269213	x	20	7	Check anti-freeze and DCA concentration			●			
269213	x	20	8	Change engine oil and filter				●		
269213	x	20	9	Change water coolant filter				●		
269213	x	20	10	Clean crankcase breather				●		
269213	x	20	11	Change fuel filter				●		
269213	x	20	12	Clean cooling systems				●		
<b>37. Batteries</b>										
269213	x	37	1	Check battery charging system	●					
269213	x	37	2	Check battery electrolyte level	●					
<b>42. Electrical Service (Power Panels, Switches, Controls, Transformers, etc.)</b>										
269213	x	42	1	Check Operation of auto transfer switches.	●					

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<b>Exhaust Fans</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
233423	X	1	1	Inspect housing bolts, set screws, and fasteners for tightness. Tighten or replace as necessary.			●		
233423	X	1	2	Inspect housing for cleanliness. Clean exterior surfaces.			●		
233423	X	1	3	Remove dust and grease in motor housing.			●		
<b>02. Fans (Fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
233423	X	2	1	Inspect propeller and air inlets for dirt and material build-up. Clean as required.				●	
233423	X	2	2	Lubricate fan bearings.					See IOM Tables
<b>04. Drive Assemblies (V-Belts, Sheaves, Gear Boxes, Drive Bearings, Shafts, etc.)</b>									
233423	X	4	1	Inspect belt for wear and alignment. Replace worn belts and adjust alignment and tension as needed. Re-tension belts after 24 hours of operation following replacement.			●		
233423	X	4	2	Check drive sheaves for wear and alignment. Replace and re-align worn sheaves.				●	
<b>05. Motors</b>									
233423	X	5	1	Inspect motor for bearing noise or vibration.				●	
233423	X	5	2	Inspect motor cooling fan inlet for blockage or debris. Clean as necessary.				●	
233423	X	5	3	Lubrication not needed for the first 10 years but can be lubricated after 3 years.					3 Years
<b>42. Electrical Service (Power Panels, Switches, Controls, Transformers, etc.)</b>									
233423	X	42	1	Inspect all electrical conduits connections to ensure tightness.				●	
233423	X	42	2	Inspect wiring connections to motor leads.				●	
233423	X	42	3	Perform and record motor amperage readings while motor and fan are operational.				●	





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**29. Fire Extinguishers & Fire Extinguisher Cabinets**

104416	x	29	1	Ensure extinguisher is located in designated place.	●				
104416	x	29	1	Ensure there is no obstruction to access or visibility.	●				
104416	x	29	1	Check to see if operating instructions are on nameplate and facing outward.	●				
104416	x	29	1	Inspect seals and tamper indicators and make sure they are not broken or missing.	●				
104416	x	29	1	Check fullness by weighing or hefting.	●				
104416	x	29	1	Examine for obvious physical damage, corrosion, leakage, or clogged nozzle.	●				
104416	x	29	1	Check to ensure pressure gauge readings in the operable area.	●				
104416	x	29	1	Clean extinguisher				●	
104416	x	29	1	Inspection name plate and U/L manifest are securely fastened and legible				●	
104416	x	29	1	Inspect the cylinder for corrosion, abrasion, dents or weld damage.				●	
104416	x	29	1	Perform Hydrostatic Pressure Test and Inspection					●

Every 12 Years



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<b>26. Fire Hydrants</b>									
211000	x	26	1	Inspect paint, caps, chains, etc.			●		
211000	x	26	1	Check aquaphone for valve leakage			●		
211000	x	26	1	Flush out the hydrant lateral and hydrant itself			●		
211000	x	26	1	Add lubricant to cap threads if needed			●		
211000	x	26	1	Pressure test entire hydrant				●	

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**23. Fire Alarm System (Panels, Sensors, Annunciators, Straps & Horns, etc.)**

283111	x	23	1	Visual inspection of all fire sprinkler devices connected to the alarm. This includes water flow switches and valve tamper switches.		●					
283111	x	23	1	Smoke Detector Cleaning: as test results require. Many newer fire alarm panels are capable of issuing maintenance alerts and adjusting sensitivity as the detector becomes dirtier. Both of these features reduce false alarms.							As Test Results Require
283111	x	23	1	Visual inspection of panel trouble signal led's.					●		Weekly
283111	x	23	1	Test & visual inspection of panel functionality, LED's, fuses, etc...						●	
283111	x	23	1	Test of fire pump monitored points (loss of phase, phase reversal, pump running etc...)		●					
283111	x	23	1	Test batteries - load voltage			●				
283111	x	23	1	Test of sprinkler waterflow switches (flow water or manually trip flapper)			●				
283111	x	23	1	Test of sprinkler valve tamper switches (operate valves)			●				
283111	x	23	1	Visual inspection lead-acid battery (swelling or loose connections)				●			
283111	x	23	1	Test panel battery charger					●		
283111	x	23	1	Battery discharge test						●	
283111	x	23	1	Test & visual inspection of horns, strobes, chimes, & bells etc...						●	
283111	x	23	1	Test & visual inspection of smoke detectors						●	
283111	x	23	1	Test & visual inspection of heat detectors						●	
283111	x	23	1	Test & visual inspection of duct smoke detectors						●	
283111	x	23	1	Test & visual inspection of Electromechanical Releasing Devices (Solenooid)						●	
283111	x	23	1	Test & visual inspection of Voice Evacuation equipment						●	
283111	x	23	1	Replace sealed lead-acid batteries every 5 years or as test results require.							5 Years or as Test Results Require
283111	x	23	1	Replace smoke & heat detector.							10 Years

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**Fire Post Indicator Valves**

211000	x	27	1	Test condition and operation of tamper switch		●			
211000	x	27	1	Observe position flag to ensure valve is open		●			
211000	x	27	1	Lubricate operating stem nut		●			

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45. Utility Service Components (Valves, Meters, Switchgear, etc.)									
221119	x	45	1	Operate gate valves from full open to full close. The length of time between operations depends upon the time of installation and the service conditions.			●		
221119	x	45	1	Inspect gate valve stem threads and thrust collar for lubricant. Apply Wylstik FG-2 Food Machinery Grease as required.			●		
221119	x	45	1	Inspect gate valve for chipped spots in the epoxy coating. Repair with liquid two party epoxy as required.			●		
221119	x	45	1	Inspect upper and lower stem O-rings for excessive wear. Replace as required.			●		

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**Plumbing Fixtures**

45. Utility Service Components (Valves, Meters, Switchgear, Plumbing Fixtures, etc.)					Monthly	Quarterly	Semi-Annually	Annually	Other
224000	x	45	1	Inspect lavatory fixtures (Sinks, Urinals, Commodes, Faucets) for leaks.		●			
224000	x	45	2	Inspect lavatory fixtures (Sinks, Urinals, Commodes, Seats, Faucets) to ensure they are securely fastened to wall, floor, or fixture.		●			
224000	x	45	3	Clean fixtures per manufacturer's recommendations.		●			
224000	x	45	4	Check drain lines to ensure they drain properly and free from leakage.		●			
224000	x	45	5	Check auto flush devices to ensure they are operating properly. Replace batteries as needed.		●			
224000	x	45	6	Check temperature control devices (faucets and shower heads) to ensure they are operating properly. <b>PREVENTION OF SCALDING WATER TEMPERATURES</b>					●
224000	x	45	7	Check water supply piping systems for leakage and proper water flow. Check line and faucet strainers and screens for pluggage.				●	

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<b>Pump - Hydronic</b>									
<b>04. Drive Assemblies (V-Belts, Sheaves, Gear Boxes, Drive Bearings, Shafts, etc.)</b>									
238219	1	4	1	Check pump coupling for wear or damage.			●		
238219	1	4	2	Check coupling alignment.			●		
<b>05. Motors</b>									
238219	1	5	1	Check pump motor base and mounting hardware for loose parts or damage.			●		
238219	1	5	2	Check motor for leaking bearing seals.			●		
238219	1	5	3	Check motor for external housing or shaft damage.			●		
238219	1	5	4	Check for dirt, dust & debris in air vents on motor's cooling fan housing.			●		
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
238219	1	9	1	Check operation of VFD (if equipped)				●	
<b>13. Pumps (Impeller, Volute, Mounting, Seals, Shaft, Bearings, etc.)</b>									
238219	1	13	1	Check pump seal for leakage			●		
238219	1	13	2	Check discharge and suction pressure gauges			●		
238219	1	13	3	Check pump bearings for noise or wear			●		
<b>14. Water Circulating Loops (Heating, Cooling, Domestic)</b>									
238219	1	14	1	Check piping system for leaks			●		
<b>42. Electrical Service (Power Panels, Switches, Transformers, etc.)</b>									
238219	1	42	1	Check wiring connections and conduits for wear or damage.				●	
238219	1	42	2	Perform motor amperage reading and record				●	

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<b>Split Systems</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
000000	x	1	1	Inspect unit housing for damage and cleanliness, clean as required	•				
<b>02. Fans (fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
000000	x	2	1	Clean condenser (outdoor) fan housing segment and fan assembly				•	
000000	x	2	2	Check condenser (outdoor) fan housing, wheel, shaft, frame, inlet vanes and bearings for damage, wear, loose parts, dirt and debris.				•	
000000	x	2	3	Clean evaporator (indoor) fan housing segment and fan assembly				•	
000000	x	2	4	Check evaporator (indoor) fan housing, wheel, shaft, frame, inlet vanes and bearings for damage, wear, loose parts, dirt and debris.				•	
<b>03. Filters (Air, Water, Inline, Particulate, HEPA, etc.)</b>									
000000	x	3	1	Check the cleanliness of the filters and replace or clean as required.			•		
000000	x	3	2	Check filter frames for residual contaminants and clean as necessary.		•			
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
000000	x	7	1	Inspect condenser(outdoor) coils for cleanliness, damage, and sign of refrigerant leakage	•				
000000	x	7	2	Inspect evaporator(indoor) coils for cleanliness, damage, and sign of refrigerant leakage	•				
000000	x	7	3	Inspect coils for cleanliness, damage, and sign of refrigerant leakage	•				
000000	x	7	4	Inspect condensate (indoor) drain pan for debris or pluggage.	•				
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
000000	x	9	1	Check operation of thermostat and fan controls	•				
<b>34. Compressors, (Refrigerant)</b>									
000000	x	34	1	Check operation of compressor, check for excessive noise, vibration or overheating			•		
000000	x	34	2	Check compressor for signs of refrigerant leakage			•		

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<b>Unit Heaters</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
238239	x	1	1	Inspect unit housing and clean as necessary.			●		
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
238239	x	7	1	Inspect coil fins for dirt and debris, clean as necessary			●		
238239	x	7	2	Inspect piping system for leaks and corrosion			●		
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
238239	x	9	1	Check operation of thermostat			●		

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**Variable Frequency Drives**

<b>01. Unit Cabinet, Housing, or Enclosure</b>									
237413	x	1	1	Check for dustiness, corrosion and temperature.				●	As Needed
237413	x	1	2	Clean exterior of drive cabinet.					
<b>02. Fans (Fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
237413	x	2	1	Replace enclosure fan.					6 Years
237413	x	2	2	Replace drive module fan.					6 Years
<b>03. Filters (Air, Water, Inline, Particulate, HEPA, etc.)</b>									
237413	x	3	1	Check and replace enclosure inlet air filter.		●			
237413	x	3	2	Check and replace exhaust air filter.			●		
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
237413	x	9	1	Check and clean heat sink.			●		6 Years
237413	x	9	2	Inspect tightness of terminals.					6 Years
237413	x	9	3	Inspect quality of supply voltage.				●	9 Years
237413	x	9	4	Replace OJT+ flat cables.					9 Years
237413	x	9	5	Replace electrolytic capacitors (DC circuit).					9 Years
237413	x	9	6	Replace battery in assistant control panel					10 Years
237413	x	9	7	Replace capacitor.					10 Years

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<b>VAV Terminals</b>									
<b>01. Unit Cabinet, Housing, or Enclosure</b>									
233600	x	1	1	Clean interior and exterior of terminal housing				●	As Needed
233600	x	1	2	Check ductwork connections for air leakage				●	
233600	x	1	3	Check water connection for leakage				●	
<b>07. Coils (Heating, Cooling, Evaporating, Condensing, etc.)</b>									
233600	x	7	1	Measure pressure drop across coils and record				●	
233600	x	7	2	Clean coils					As Needed
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
233600	x	9	1	Check Building Automation System display for space temperature and set point.	●				
233600	x	9	2	Check the operation of the thermostat control				●	
233600	x	9	3	Check operation of control damper operator				●	
233600	x	9	4	Check operation of reheat coil valve operator				●	

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<b>01. Unit Cabinet, Housing, or Enclosure</b>									
223000	x	1	1	Clean accumulated sediment deposits from the tank by draining a few gallons of water from the water heater's tank through the drain valve.	●				
223000	x	1	2	Clean accumulated lime scale deposits per manufacturer's recommendations.			●		
223000	x	1	3	Remove any lint or dust that may block the free passage of air through the control compartment.	●				
223000	x	1	4	Remove or lift top cover to examine threads of fittings installed into tank for evidence of leakage.				●	
223000	x	1	6	Replace gasket whenever the heating element is removed from the tank for cleaning or replacement.			●		
223000	x	1	7	Inspect anode rod(s) and replace when more than 6" of core wire is exposed at either end of the rod.				●	
<b>02. Fans (Fan Blades, Fan Housing, Fan Shaft, and Fan Bearings)</b>									
223000	x	2	1	Inspect the inlet screen and blower wheel. Clean the inlet screen and blower wheel with a soft brush as needed.	●				
<b>09. Controls - Electronic (Sensors, Valves, Operators, etc.)</b>									
223000	x	9	1	Check operation of controls and sensors.			●		
<b>12. Operational Safeties (Safety Interlocks, Relief Valves, etc.)</b>									
223000	x	12	1	Check operation of relief valve by lifting the handle fully. The water released should be directed to a suitable drain to prevent injury or damage.				●	
<b>22. Burners and Burner Assemblies</b>									
223000	x	22	1	Check burner assembly to ensure the assembly is properly mounted and secure.			●		
223000	x	22	2	Inspect fuel piping for leaks.			●		
223000	x	22	3	Inspect flame to ensure proper combustion. Blue flame indicates proper combustion, yellow flame indicates fuel-to-air mixture is incorrect.			●		
<b>31. Ductwork (Vent and Combustion Air)</b>									
223000	x	31	1	Check for obstructions and/or deterioration of vent piping and vent hood. Replace immediately where needed.			●		
223000	x	31	2	Clean vent pipe and vent hood screen of foreign material and soot. DO NOT REACH INSIDE THE VENT HOOD WHEN THE HEATER IS IN OPERATION.			●		
223000	x	31	3	Inspect the vent system and verify all joints are sealed. Reseal as required using HI Temp Silicone sealer or equivalent.			●		
<b>42. Electrical Service (Power Panels, Switches, Controls, Transformers, etc.)</b>									
223000	x	42	1	Inspect all electrical connections at the service terminal block, fuse holders, contactors, thermostats and elements to verify all connections are tight.				●	
223000	x	42	2	Check all fuses (Electrical Disconnect and heater). Replace any fuses as required of same type as the originals.				●	

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<b>Water Cooler</b>											
<b>45. Utility Service Components (Valves, Meters, Switchgear, Plumbing Fixtures, etc.)</b>											
224000	x	45	1	The fan motor on this unit seldom needs oiling, but if required, use a few drops of SAE 10 oil.						As needed	
224000	x	45	1	Check water supply flow and drain for proper operation.							
224000	x	45	2	Inspect and clean the condenser with a small stiff non-wire brush to remove dirt and lint. Disconnect power supply prior to cleaning.		●					