

**CERTIFICATION OF WORK
PREVENTIVE MAINTENANCE**

(To be completed by the Contractor and saved in the Contractor's CMMS)

FACID/Building: NY127 Date of Visit: 3/4/20 - 3/18/20

Contractor Personnel on Site:

1. <u>PATRICK BROWN</u>	3. _____
2. _____	4. _____

Work Performed:

Preventive Maintenance - Services Completed (Annual, Quarterly, Monthly, equipment identification, etc.)

1. WO'S 7355F, 7661Q, 7680S, 7356F, 7657M, 7662Q, 7681S
2. FILTERS, GREASE INTERCEPTOR, CHILLER, AIR HANDLERS, HRS, CONDENSING UNITS
3. MAKUP AIR UNIT, VFD, AIR CURTAIN, FURNACE, FAN COIL UNITS, LIGHTING
4. _____
5. _____

CERTIFICATION OF WORK

To be signed by the Contractor:

Print Name: Patrick Brown Date: 3/18/20

Signed: 

To be signed by Facility Manager:

By signing the Certification of Work, the said government representative signature does not constitute acceptance of any work performed by the contractor, it only acknowledges that the contractor was on-site during the identified timeline:

Print Name/Rank: LARS LUFFMAN Date: 3/18/20

Signed: 

E-Mail: _____

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
AIR COOLED CHILLER, PACKAGE UNIT

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/4/20**LOCATION/RM #: **WO# 7680 ASSET # 190917-605**START TIME: **9:30am**FINISH TIME: **10:30am**

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓		
2	No intentional venting of refrigerants is permitted. During the servicing, maintenance, and repair of refrigeration equipment, the refrigerant must be recovered.	✓		
3	Whenever refrigerant is added or removed from equipment, record the quantities on the appropriate forms. Forms to be maintained by technician in universal waste binder.	✓		
4	Recover, recycle, or reclaim the refrigerant as appropriate.	✓		
5	If disposal of the equipment item is required, follow regulations concerning removal of refrigerants and disposal of the item.	✓		
6	If materials containing refrigerants are discarded, comply with EPA regulations as applicable.	✓		
7	Refrigerant oils to be treated as hazardous waste.	✓		
8	Closely follow all safety procedures described in the Safety Data Sheet (SDS) for the refrigerant and all labels on refrigerant containers.	✓		
9	Remove access covers prior to accomplishing check points.	✓		
TO BE PERFORMED AT EACH INSPECTION SERVICE				
CONDENSER				
1	Remove debris from air screen and clean underneath unit.	✓		
2	Pressure wash coil with proper cleaning solution.	✓		
3	Straighten fin tubes with fin comb.	✓		fins are straight
4	Check electrical wiring and tighten loose connections. Check fused disconnect switches for condition and operation, contactors	✓		wiring is good
5	Check mounting for tightness.	✓		mounts are good
6	Check for corrosion. Clean and treat with inhibitor as needed.	✓		no corrosion
7	Check fan or blower for bent or damaged blades and imbalance.	✓		no bent blades

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
8	Lubricate shaft and motor bearings on fans and remove old or excess lubricant, if applicable.	✓	✓	
9	Inspect pulleys, belts, couplings, etc.; adjust tension and tighten mountings as necessary. Change badly worn belts. Multi-belt drives should be replaced with matched sets.	✓	✓	direct drive only
EVAPORATOR				
1	Inspect evaporator for any obvious deficiencies.	✓	✓	
2	Inspect plumbing, valves and flanges for leaks and correct as needed.	✓	✓	there is an oil leak
COMPRESSOR(S)				
1	Lubricate drive coupling, if applicable.	✓	✓	no drive couplings
2	Lubricate motor bearings (non-hermetic), if applicable.	✓	✓	hermetic motors
3	Check bearings for vibrations or unusual noises.	✓	✓	to cold for unit to run
4	Leak test unit with soap test or electronic device.	✓	✓	one leak found
5	Check compressor oil level., if applicable.	✓	✓	
6	Run machine; check action of controls, relays, switches, etc. to see that: a. Compressor(s) run at proper settings. b. Suction and discharge pressures are proper.	✓	✓	oil level is low
7	Check vibration eliminators. Replace as necessary.	✓	✓	
8	Document AMP draw on compressors	✓	✓	L1 L2 L3
9	Check safety controls for high pressure cut off.	✓	✓	
CONTROLS				
1	Record chilled water supply and return temps and Humidity .	✓	✓	

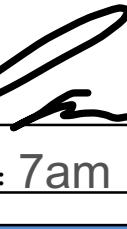
Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed description of the deficiency.

To be performed by: HVAC Technician

Additional Notes: I'm unable to complete the p.m. at this time the weather is not warm enough as soon as it gets warm enough I will complete p.m.

I found an oil leak in one of the lines I am requesting a CM ticket to be open

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
AIR HANDLER

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/4/20**

LOCATION/RM #: **WO# 7680** **ASSET # 190917-606**
190917-607

START TIME: **7am**FINISH TIME: **9am**

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Remove power at Drive or at Breaker Panel. Verify with tester or meter that power has been removed. Install lock out tag out if servicing alone or in confined space for safety precautions.	✓		
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check fan blades and moving parts for cracks and excessive wear.	✓		no cracks or excessive wear
2	Check running motor amperatures on all three phases (record in note column) notate L1, L2, and L3 amp draws.-Inspect contactors	✓	✓	L1 120 .L2 120 .L3 120
3	Tighten all electrical connectors/lugs to proper torque.	✓		electrical connections are tight
4	If unit is a multi-zone air handler, then check each individual zone damper and associated controls.	✓		
5	Check bearing collar set screws on fan shaft to make sure they are tight.	✓		set screws are tight
6	Replace filters quarterly, replace as necessary. Check belt, repair or replace as necessary.	✓		filters were replaced
7	Check damper actuators and linkage for proper operation. Adjust linkage on dampers if out of alignment.	✓		dampers function properly
8	Lubricate mechanical bearings and connections sparingly.	✓		used Lucas heavy duty grease
9	Clean coils by brushing, blowing, vacuuming	✓		coils are clean
10	Check coils for leaking, tightness of fittings.	✓		no leaks found
11	Use fin comb to straighten coil fins.	✓		coil fins are straight
12	Report any equipment rust or condensate pan rust -IF found open CM	✓		no rust
13	Flush and clean condensate pans and drains, Hose down coils and drain pans and wash with an appropriate EPA approved solution approved solution. Treat condensate pans with an EPA approved biocide.	✓		pans are clean
14	Check belts for wear and cracks, adjust tension or alignment. Replace belts when necessary. Multi-belt drives shall only be replaced with matched sets.	✓		adjusted tension on the belts
15	Check rigid couplings for alignment on direct drives, and for tightness of assembly. Check flexible couplings for alignment and wear.	✓		belt driven

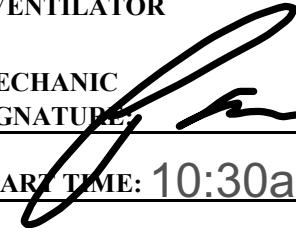
CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
16	Check and test freezestat for proper operation	✓	✗	freezestat functions properly
17	Vacuum interior of unit.	✗	✓	
18	Check filter doors and access doors for proper gasketing and air leaks. Correct as necessary.	✓	✗	gaskets are good
19	Lubricate fan shaft bearings while unit is running. Add grease slowly until slight bleeding is noted from the seals. Do not over lubricate. Remove old or excess lubricant.	✓	✗	used Lucas heavy duty grease
20	Clean up work area.	✓	✗	

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed description of the deficiency.

To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
ENERGY RECOVERY VENTILATOR

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/4/20**LOCATION/RM #: **WO# 7680 ASSET # 190917-608**START TIME: **10:30am**FINISH TIME: **11am**

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓	/	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check all moving components for proper lubrication. Apply lubrication where required.	✓	/	used white lithium grease
2	Check dampers to ensure they open and close properly.	✓	/	dampers function properly
3	Check all fan belts for wear, tension, alignment, and dirt accumulation.	✓	/	fan belts are good
4	Check fan wheels and fasteners for oil and dust accumulation and clean as necessary.	✓	/	all are good
5	Check, clean, and/or replace both internal and external filters as necessary.	✓	/	filters were replaced

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To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
OUTDOOR CONDENSING UNIT

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATUREDATE: **3/4/20**

LOCATION/RM #: **WO# 7680** **ASSET # 190917-612**
190917-613
190917-614

START TIME: 11am**FINISH TIME: 12pm**

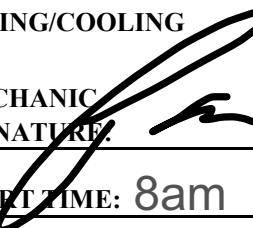
CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Schedule outage of unit with personnel in area the unit serves.	✓	/	
2	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓	/	
3	If disposal of the equipment is required, follow regulations concerning removal of refrigerants and disposal of the unit.	✓	/	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Remove debris from air screen and clean underneath unit.	✓	/	
2	Wash coil with coil cleaning solution - Rinse Thoroughly	✓	/	coils are clean
3	Straighten fin tubes with fin comb, as needed.	✓	/	fins are straight
4	Check electrical connections for tightness.	✓	/	electrical connections are tight
5	Check mounting base for tightness.	✓	/	mounting base's are solid
6	Inspect fans for bent blades, unbalance, excessive noise and vibrations.	✓	/	no excessive noise or vibration
7	Inspect all piping for leaks and tighten loose connections.	✓	/	no leaks or loose connections
8	Check wires at condenser electrical fused safety switches for tightness and burned insulation. Repair as necessary.	✓	/	all are good
9	Check supply air temperature to ensure unit is operating properly. If possible record room temperature and Humidity	✓	/	Room temp <u>71</u> Room Humidity <u>22</u> %
10	Inspect unit for overall condition and recommend for replacement or other needed repairs.	✓	/	no recommended repairs
11	Clean up work area.	✓	/	

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To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
MAKE UP AIR UNIT - HEATING/COOLING

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/18/20**LOCATION/RM #: **WO# 7680 ASSET # 190917-617**START TIME: **8am**FINISH TIME: **8:30am**

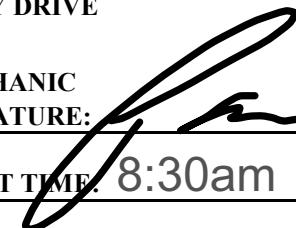
CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Schedule shutdown with operating personnel.	✓	/	
2	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓	/	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check thermostat settings to ensure the cooling and heating systems are operating correctly.	✓	/	
2	Tighten all electrical connections and measure voltage and current on motors.	✓	/	electrical connections are tight
3	Check filters and clean or replace as necessary.	✓	/	filters are clean
4	Lubricate all moving parts.	✓	/	used food grade lubricant
5	Check and inspect the condensate drain in your central air conditioner, furnace and/or heat pump (when in cooling mode).	✓	✓	to cold for cooling mode
6	Check controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates, and shuts off properly.	✓	/	system functions properly
7	Clean evaporator and condenser air conditioning coils.	✓	/	coils are clean
8	Clean and adjust blower components to provide proper system airflow.	✓	/	system air flow is proper
9	Check all gas (or oil) connections, gas pressure, burner combustion and heat exchanger.	✓	/	all are good

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed description of the deficiency.

To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
VARIABLE FREQUENCY DRIVE

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE:
DATE: **3/18/20**

LOCATION/RM #:

WO# 7680ASSET # **190917-628****190917-629**START TIME: **8:30am**FINISH TIME: **9am**

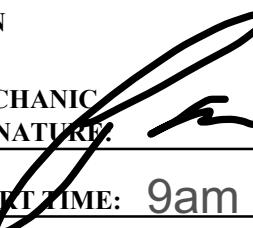
CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.			
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Perform a complete visual inspection and cleaning. Broken or damaged parts are replaced as required. Inspected for ambient temperature, dust, dirt, moisture, evidence of overheating, corrosion, integrity, etc. Capacitors are checked for leakage. Conductors and parts are checked for proper insulation. Drives are cleaned using vacuum or compressed air as required. Filters are cleaned or replaced. Power connections are re-torqued to manufacturer's specifications.			all are good

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To be performed by: HVAC Technician

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
AIR CURTAIN

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/18/20**

LOCATION/RM #:	WO# 7680	ASSET # 190917-655	START TIME: 9am	FINISH TIME: 9:30am
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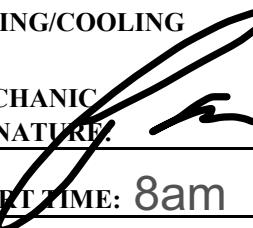
CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Disconnect the power to the unit.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2	Remove the intake grille by removing all screws around the edges.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	Vacuum and wash (if necessary) to remove the buildup of dirt and debris.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	unit is clean
4	If necessary, lubricate the motors.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	Reinstall the cover and intake grille.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	Verify proper operation of unit. Make and/or recommend any needed repairs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	unit functions properly

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To be performed by: General Maintenance Worker

Additional Notes:

PREVENTATIVE MAINTENANCE PROGRAM CHECKLIST
MAKE UP AIR UNIT - HEATING/COOLING

SITE AND BLDG #: **NY127-01**MECHANIC
SIGNATURE: DATE: **3/18/20**LOCATION/RM #: **WO# 7680 ASSET # 190917-617**START TIME: **8am**FINISH TIME: **8:30am**

CHECK POINT	CHECKPOINT DESCRIPTION	TASK COMPLETE		NOTES/ ACTIONS (IF TASK COMPLETE IS CHECKED NO, PROVIDE EXPLANATION)
		YES	NO	
SPECIAL INSTRUCTIONS				
1	Schedule shutdown with operating personnel.	✓	/	
2	Follow lock out/tag out procedures at all times. De-energize or discharge all hydraulic, electrical, mechanical, or thermal energy prior to beginning work.	✓	/	
TO BE PERFORMED AT EACH INSPECTION SERVICE				
1	Check thermostat settings to ensure the cooling and heating systems are operating correctly.	✓	/	
2	Tighten all electrical connections and measure voltage and current on motors.	✓	/	electrical connections are tight
3	Check filters and clean or replace as necessary.	✓	/	filters are clean
4	Lubricate all moving parts.	✓	/	used food grade lubricant
5	Check and inspect the condensate drain in your central air conditioner, furnace and/or heat pump (when in cooling mode).	✓	✓	to cold for cooling mode
6	Check controls of the system to ensure proper and safe operation. Check the starting cycle of the equipment to assure the system starts, operates, and shuts off properly.	✓	/	system functions properly
7	Clean evaporator and condenser air conditioning coils.	✓	/	coils are clean
8	Clean and adjust blower components to provide proper system airflow.	✓	/	system air flow is proper
9	Check all gas (or oil) connections, gas pressure, burner combustion and heat exchanger.	✓	/	all are good

Note: The technician shall perform any repairs identified during PM up to \$250 (direct labor and direct material cost) per PM occurrence. For any deficiencies found exceeding \$250 open a corrective maintenance (CM) ticket and include the Asset #, WO #, photos, and a detailed description of the deficiency.

To be performed by: HVAC Technician

Additional Notes: