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Work Order # 159886 Details	
Call Type	PreventiveMaint
Caller	Robert Hinich
Date Created	2020-08-04
Purchase Order	PO# 01577
Job#	S003563
Date Completed	Aug. 20, 2020 - 6:20:19 a.m.

Site Information	Billing Information
310 Governor's Road /HWDSB Dundas Valle	Hamilton Wentworth District School Board
310 Governor's Road	20 Education Court
Dundas, ON L9H 5P8	Hamilton, ON L9A 0B9
Phone: (000)000-0000	

### **Work Requested**

- o Check for particulate accumulation on filters, replace filter as needed if material is already on-site. Verify filters are sized and installed correctly. Clean and remove louver obstructions.
- o Check all motors and fans operate correctly. Grease/oil as required. o Check belts are tight and in good condition.

#### Replace as required.

- Check variable-frequency drive for proper operation.
- Check drain pans for cleanliness and proper slope. Check P-trap on drain pan for proper operation. Clean as required.
- Verify control dampers operate properly.
- Confirm equipment is bringing in outdoor air and removing exhaust air as intended.

Equipment Name: Servi-HVAC	Model:
Manufacturer:	Serial Number:

#### Work Requested

- o Check for particulate accumulation on filters, replace filter as needed if material is already on-site. Verify filters are sized and installed correctly. Clean and remove louver obstructions.
- Check all motors and fans operate correctly. Grease/oil as required.
- Check belts are tight and in good condition.

## Replace as required.

- Check variable-frequency drive for proper operation. 0
- Check drain pans for cleanliness and proper slope. Check P-trap on drain pan for proper operation. Clean as required.
- Verify control dampers operate properly.
- Confirm equipment is bringing in outdoor air and removing exhaust air as intended.

### **Work Performed**

Aug. 13, 2020

Main Office Area (2003-2006)- Located VAV/reheat coils in ceiling space in offices 2003 and 2006.

**Equipment Name: 2003** Model: SFV5 Manufacturer: Price Serial Number: 1077683-005-002

**Work Performed** Aug. 13, 2020

Located VAV in ceiling space. Tested operation.

**Equipment Name: 2006** Model: SDV5 Serial Number: 1077683-003-003 Manufacturer: Price

**Work Performed** 

Aug. 13, 2020

Located VAV in ceiling space. Tested operation.



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310 Governor's Road	20 Education Court
Dundas, ON L9H 5P8	Hamilton, ON L9A 0B9
Phone: (000)000-0000	

**Equipment Name: Rm 2060** Model: n/a

**Work Performed** 

Aug. 13, 2020

Removed various ceiling tiles in Rm 2060- located various CO2 sensors. No VAV/reheat coils located in ductwork seving classroom.

**Equipment Name: AHU-1** Model: FWE285/DJX40/0 Manufacturer: Engineered Air Serial Number: M16502 AHU-1

**Work Performed** 

Aug. 13, 2020

Greased all necessary bearings. Lubricated damper linkages. Unit running 2 of 5 stages of A/C. Checkes VFDs. Condenser motor 2 disconnected at contactor. Checked continuity of windings- Found motor to be defective.

Belts- 1 of A63 2 of B75

Filters- 6 of 20x24x2"pl

All filters and belts should be replaced.

Will provide quote for replacement of condenser fan motor 2.

**Equipment Name: AHU-2** Model: DJX100/C/O

Manufacturer: Engineer Air Serial Number: M16502 AHU-2

**Work Performed** 

Aug. 13, 2020 BAS on/off contacts within unit- no demand.

Greased all necessary bearings.

Belts: 2 of B83 1 of B79

Filters: 4 of 20x25x2"pl 2 of 16x25x2"pl 4 of 24x24x2"pl

Filters in ok condition, belts should be replaced.

**Equipment Name: AHU-4** Model: DJX20/O

Serial Number: M16502 AHU-4 Manufacturer: Engineered Air

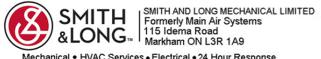
**Work Performed** 

Aug. 13, 2020

Blower fan running. Checked VFDs, greased all necessary bearings, lubricated damper linkages. AHU-4 piped to remote condenser. Remote condenser turned off at rooftop disconnect due to issue.

Belts- 1 of B57 1 of B60

Filters- 4 of 20x20x2"pl 2 of 20x24x2 pl



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310 Governor's Road /HWDSB Dundas Centr	Hamilton Wentworth District School Board
310 Governor's Road	20 Education Court
Dundas, ON L9H 5P8	Hamilton, ON L9A 0B9
Phone: (000)000-0000	

Filters in good condition, all belts should be replaced.

Equipment Name: Remote Condenser CU-6 (AHU-4)

Manufacturer: Engineered Air Serial Number: M17428 CU6-AHU-4

### **Work Performed**

Aug. 13, 2020

Found unit turned off at rooftop disconnect due to issue.

Found 1 of 2 condenser fan motors- fan blade broken off at hub attachment to motor shaft. Checked continuity of both condenser fan motors-

Condenser fan motor 1- ok. Condenser fan motor 2- motor electrically defective.

Will need to provide quotation to replace condenser fan motor and blade, then test A/C operation of unit.

**Equipment Name: RTU-1** 

Model: FW42/DJX20/O

Model: CUE93/O

Manufacturer: Engineered Air

Serial Number: M16502 RTU-1

# **Work Performed**

Aug. 13, 2020

Blower motor section

- Belt access cover shroud broken off , fallen down into R/A drop.
- Mounting Feet of blower motor cracked and broken, motor holding on by 2 of 4 screws.
- Belt tension adjuster broken off, fallen into R/A duct.
- Surprisingly blower bearings in good condition.
- belt completely destroyed

Unable contest operation of unit

Belts: 1 of A38 1 of A46

Filters: 1 of 16x20x2"pl 1 of 20x20x2"pl

Will provide quote for blower section components.

Equipment Name: Remote Condenser CU-4 Model: CU31/O

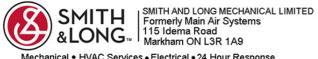
Manufacturer: Engineer Air Serial Number: M16502 CU-4

**Work Performed** 

Aug. 13, 2020 Unit not running.

Electrical section door locked off with padlock, on site maintenance staff do not have key for lock.

Equipment Name: A/C-1 (Old Carrier RTU) Model: 50DP016100



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Date Created	2020-08-04
Purchase Order	PO# 01577
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310 Governor's Road /HWDSB Dundas Centr	Hamilton Wentworth District School Board
310 Governor's Road	20 Education Court
Dundas, ON L9H 5P8	Hamilton, ON L9A 0B9
Phone: (000)000-0000	

Manufacturer: Carrier

Serial Number: n/a

#### **Work Performed**

Aug. 13, 2020

Evaporator completely iced up, suction line solid ice back to compressor, half of sump of compressor solid ice. Filters plugged (also wrong filters installed, portion of evaporator not covered), blower belts- in very bad condition- 1 of 2 fallen off pulley. Left Unit turned off.

Recommend returning with new filters and belts and testing unit.

Proper Filter list- 2 of 20x25x2"pl

1 of 20x20x2"pl

2 of 16x25x2"pl

1 of 16x20x2"pl

Belts- 2 of 4L 440

**Equipment Name: A/C-2 (Old Carrier RTU)** 

Model: 50DP012100 MA

Manufacturer: Carrier

Serial Number: 6X196

# **Work Performed**

Aug. 13, 2020 Filters installed backwards, and plugged.

Belt in rough condition, adjusted belt tension.

Found 2nd stage A/C-BAS relay disconnected in unit. Attempted to Connected gauges- 2nd stage A/C- found high side shrader port leaking, unable to fully remove shrader cap to attach gauge.

Attached gauge to low side-found standing pressures relatively low. Re-mounted relay-found 24V across low pressure switch, indicating open- stage possibly low on refrigerant.
Connected gauges to 1st stage A/C- found pressures to be ok, 1st stage operational.

Unit may possibly trip off due to status of filters.

Recommend repairing shrader on high side 2nd stage and completing leak check and repair.

Filters- 2 of 16x20x2"pl 4 of 16x25x2"pl

Belt- 1 of A40

**Equipment Name: Mits City-Multi Condenser** 

Model: PUHY-P120TKMU-A

Manufacturer: Mitsubish

Serial Number: 49W01401

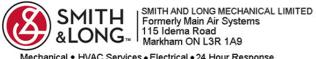
### **Work Performed**

Aug. 13, 2020

Unit running upon arrival.

Aug. 17, 2020

Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be ok.



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Work Order # 159886 Details	
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Date Created	2020-08-04
Purchase Order	PO# 01577
Job#	S003563
Date Completed	Aug. 20, 2020 - 6:20:19 a.m.

Site Information	Billing Information
310 Governor's Road /HWDSB Dundas Centr	Hamilton Wentworth District School Board
310 Governor's Road	20 Education Court
Dundas, ON L9H 5P8	Hamilton, ON L9A 0B9
Phone: (000)000-0000	

Equipment Name: Mits City Multi Condenser Model: PUHY-P72TKMU-A Manufacturer: Mitsubishi Serial Number: 49W01200

# **Work Performed**

Aug. 17, 2020

Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be

Equipment Name: Mits City Multi Condenser Model: PUHY-P72TKMU-A Manufacturer: Mitsubishi Serial Number: 48W01189

#### **Work Performed**

Aug. 17, 2020

Located Computer Labs. Put zone controllers into override mode and lowered setpoints- checked operation at condensing unit- found all to be ok.

Equipment Name: Mits City Multi Condenser Model: PUHY-P120TKMU-A Manufacturer: Mitsubishi Serial Number: 49W01400

# **Work Performed**

Aug. 13, 2020

Mits 4 and 5 piped in tandom

Aug. 17, 2020

Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit-Monitored operation- found all to be ok.

Equipment Name: Mits City Multi Condenser Model: PUHY-P96TKMU-A Manufacturer: Mitsubishi Serial Number: 4YW01193

# **Work Performed**

Aug. 13, 2020

Mits 4 and 5 piped in tandom

Aug 17, 2020

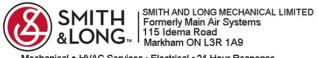
Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit-Monitored operation- found all to be ok.

Equipment Name: Mitsubishi City Multi Condenser Model: PUHY-P120TKMU-A Manufacturer: Mitsubishi Serial Number: 49W01397

## Work Performed

Aug. 17, 2020

Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit-Monitored operation- found all to be ok.



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Work Order # 159886 Details		
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Date Created	2020-08-04	
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Equipment Name: Mitsubishi City Multi Condenser Model: PUHY-P96TKMU-A Manufacturer: Mitsubishi Serial Number: 47W01238

**Work Performed** 

Aug. 17, 2020

Various classrooms- Science Wing/2nd floor West. Put zone controllers into override mode and lowered setpoints to bring on Condensing Unit-Monitored operation- found all to be ok.

Equipment Name: Exhauster Model: none

Manufacturer: Universal Fan and Blower Ltd Serial Number: 21732-3

**Work Performed** 

Aug. 13, 2020

Belt broken sitting inside exhauster. Checked condition of pulleys, greased bearings.

Left exhauster turned off

Belt: 1 of B23

Equipment Name: Exhauster Model: none

Manufacturer: Universal Fans and Blowers Ltd. Serial Number: 21732-2

**Work Performed** 

Aug. 13, 2020

Belt broken sitting inside exhauster. Checked condition of pulleys, greased bearings.

Left exhauster turned off.

Belt: 1 of B23

Equipment Name: Exhauster Model: none

Manufacturer: Universal Fan and Blower Ltd. Serial Number: 21732-1

**Work Performed** 

Aug. 13, 2020

Found unit turned off on roof with no belt. Greased bearings. Turned on, tested motor operation- all ok.

Left exhauster turned off

Equipment Name: F-5 Kitchen Supply Model: Size 123

Manufacturer: Canadian Blower and Forge Serial Number: 65-E-2146-T27

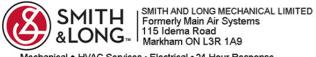
**Work Performed** 

Aug. 17, 2020

Removed belt guards- inspected belts and greased bearings. Found to be in good condition. Turned unit on at starter- monitored O/A damper operation- found to be ok. Filters clean.

Belts- 2 of A60 belts Filters- 1 of 16x20x2pl 1 of 20x24x2pl 2 of 16x20x2"media

Equipment Name: F-7 Kitchen Exhaust Model: 375 B BVS



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Date Created	2020-08-04	
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Site Information	Billing Information
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Phone: (000)000-0000	

### Manufacturer: Canadian Blower and Forge

#### Serial Number: 65-F-2146-T5

#### **Work Performed**

Aug. 17, 2020

Removed belt guard. Inspected bearings/belt. Found bearings to be over greased previously. Otherwise, bearings in good condition. Belt lose, but in good condition. Adjusted belt tension.

Turned on at starter.

Removed discharge air duct access panel- monitored damper operation- found all to be ok.

Re-installed duct access panel and re-installed belt guard.

Belt: 1 of A44

Equipment Name: F-2 Return Air Fan Model: 542

Manufacturer: Canadian Blower and Forge Serial Number: 65-E-2146-T2

### **Work Performed**

Aug. 17, 2020

Checked condition of bearings- found to be ok. Removed belt guard. Found belts lose. No spare belts on site. Adjusted motor for proper belt tension.

Turned on starter and tested operation- found all to be ok.

Belts: 2 of B136 belts

Equipment Name: F-1 Classroom Supply Fan Model: 730

Manufacturer: Canadian Blower and Forge Serial Number: 65-E-2146-T1

# **Work Performed**

Aug. 17, 2020

Checked condition of belts- found to be in good condition. Greased bearings, pulleys in good condition, motor pulley recently replaced. Turned unit on at starter, monitored operation of proportional damper motor for O/A dampers- observed dampers fully opening on call, and closing after power turned off.

Greased damper motor bearings.

All functioning properly at this time.

Filters- 32 of 20x25x2" media

Belts- 3 of B144 belts

Equipment Name: F-8 Washroom Exhauster Model: nameplate missing
Manufacturer: Canadian Blower and Forge Serial Number: n/a

Work Performed

Aug. 17, 2020

Located unit mounted behind ductwork in Mechanical room.

Found belt severely worn, cracked and fallen off off pulleys.

Replaced with spare, and adjusted belt tension. Greased bearings. Re-installed belt guard.

Turned unit on at starter- monitored damper operation, monitored exhauster operation- found all to be operational at this time.

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Belt- 1 of A36

Equipment Name: AHU-3

Manufacturer: Engineered Air Serial Number: M16502 AHU-3

Work Performed

Aug. 17, 2020

Removed fan guards and checked condition of belts- Found to be ok. Greased bearings. Re-installed fan guards. Checked VFDs for faultsfound both to be ok. Both fans running at 84%. O/A dampers fully closed, unit running 100% return air. AHU piped to remote condenser- CU-7.

Model: DJX100/O

Model: CU273/O

Filters- 12 of 20x24x2"pl 2 of 20x20x2"pl E/A Fan- 1 of B79 belt S/A Fan- 2 of B78 belts

**Equipment Name: Remote Condenser** 

Manufacturer: Engineered Air Serial Number: M17428 CU7-AHU-3

**Work Performed** 

Aug. 17, 2020 (Piped to AHU-3)

Found 1 of 3 stages of A/C running.

Installed jumpers to energize LL solenoids, for stages 2 and 3 and force 100% A/C.

Monitored operation- system pressures ok. All condenser fans operational. Checked cond fan cycling controllers- cut-in, cut-out values ok.

Checked compressor crankcase heaters- found all to be ok.

		Summary			
		Labor Detai	<u> </u>		
Technician	Equipment	Labor Type Id	Date	Hours	
Thomas Herridge	SV-HVAC	MECH	2020-08-13	8	
Thomas Herridge	SV-HVAC	MECH	2020-08-17	8	
				Total 16	
		Material / Misc / Flat R	ate Details		
Equipment	Item	Description			Quantity

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# **Customer Signature**

MA

# Customer Name: n/a

This receipt may not reflect all applicable charges due to Smith & Long, and should not be considered as final. Final charges will be as detailed on your invoice sent following this service call.

**Location Upon Signature**