

Town of Canterbury
HVAC Maintenance Agreement
Proposal

Closing July 31, 2009

Requirements for HVAC Maintenance Agreement Proposal

Canterbury Town Hall

The Maintenance and Repair program for the HVAC systems is to be full service and include the following:

1. Quarterly Maintenance, including all material and labor to tune and maintain equipment to OEM requirements.
2. 24 hour, 7 day emergency repair of all maintainable components, including holidays, at no additional charge.
3. Guaranteed minimum 4 hour response time from placement of call.
4. On site, log book documenting date of service, technician name and maintenance procedure performed on each piece of equipment.
5. Work area to be kept clean and in an orderly manner. All used belts, filters, parts etc to be disposed of by contractor.
6. Minimum Certificate of Liability Insurance of a million dollars
7. Must hold Connecticut Contractor License and be in good standing.
8. This proposal would be for a two year period starting August 1, 2009 to June 30, 2011

Equipment to be serviced

4 AHU (see attachments)
2 Exhaust fans

Town of Canterbury

Split System Unit- Annual Maintenance Inspection

1. Measure and verify operations of reversing valve where applicable
2. Measure and verify condenser loop strainer where applicable
3. Measure and verify defrost cycle and controls where applicable
4. Measure and verify backup heat source where applicable
5. Measure and verify power supply
6. Measure and verify volts/amps of compressors
7. Measure and verify volts/amps of condenser fan motor where applicable
8. Measure and verify starters and contact surfaces
9. Measure and verify operating temperatures
10. Measure and verify refrigerant charge
11. Measure and verify moisture indicators
12. Measure and verify sight glasses
13. Measure and verify oil levels
14. Measure and verify oil contamination
15. Change oil where applicable
16. Measure and verify all belts where applicable
17. Measure and verify all safety controls
18. Measure and verify hot gas by-pass controls
19. Measure and verify superheat and adjustment
20. Measure and verify head pressure controls
21. Measure and verify unloader operation where applicable
22. Measure and verify all operating controls
23. Check and tighten all electrical connections
24. Lube motors/bearings where applicable
25. Measure and verify and clean condenser coil where applicable
26. Measure and verify water cooled condensers where applicable
27. Measure and verify water-regulating valve where applicable
28. Measure and verify compressor efficiency
29. Measure and verify cap tubes/piping for chafing
30. Measure and verify crankcase heaters
31. Visual Measure and verify for oil/refrigerant leaks
32. Measure and verify humidifier strainer, where applicable
33. Measure and verify humidifier hand valves
34. Measure and verify and clean humidifier float assembly
35. Measure and verify humidifier level controls
36. Measure and verify and clean humidifier drain/pan
37. Measure and verify humidifier-heating elements
38. Measure and verify all humidifier controls
39. Measure and verify and clean outside air intakes
40. Measure and verify expansion valve bulb clamp
41. Measure and verify unusual noises/vibrations
42. Measure and verify cabinetry/hardware conditions
43. Measure and verify structural integrity of unit
44. All pertinent maintenance complete

07-09rev

Town of Canterbury
Split System Unit- Operational Preventive Maintenance Inspection

1. Measure and verify operations of reversing valve where applicable
2. Measure and verify condenser loop strainer where applicable
3. Measure and verify defrost cycle and controls where applicable
4. Measure and verify backup heat source where applicable
5. Measure and verify power supply
6. Measure and verify volts/amps of compressors
7. Measure and verify volts/amps of condenser fan motor where applicable
8. Measure and verify starters and contact surfaces
9. Measure and verify operating temperatures
10. Measure and verify refrigerant charge
11. Measure and verify moisture indicators
12. Measure and verify sight glasses
13. Measure and verify oil levels
14. Measure and verify all belts where applicable
15. Measure and verify all safety controls
16. Measure and verify operating controls
17. Check and tighten all electrical connections
18. Lube motors/bearings where applicable
19. Measure and verify and clean condenser coil where applicable
20. Measure and verify cap tubes/piping for chafing
21. Visual Measure and verify for oil/refrigerant leaks
22. Measure and verify humidifier strainer, where applicable
23. Measure and verify humidifier level controls
24. Measure and verify and clean humidifier float assembly
25. Measure and verify humidifier level controls
25. Measure and verify and clean condenser coil where applicable
26. Measure and verify and clean humidifier drain/pan
27. Measure and verify humidifier-heating elements
28. Measure and verify all humidifier controls
29. Measure and verify and clean outside air intakes
30. Measure and verify expansion valve bulb clamp
31. Measure and verify unusual noises/vibrations
32. Measure and verify cabinetry/hardware conditions
33. Measure and verify structural integrity of unit
34. All pertinent maintenance complete

Jackson & Church Product Specifications

Drawing #: PSH-14374	Rev: B	Model: SDF-40-GMFU
Qty: 1	3/27/01	Job: CANTERBURY MUNICIPAL BUILDING
Date: 12/11/00		Tag: AHU-1

MAIN ELECTRICAL SERVICE		
Volts/Phase/Frequency(Hz)		208/3/60
Unit FLA		27.1
Disconnect Switch		NOT INC.

CONTROL CIRCUIT		
Volts/Phase/Hz		115/1/60
RECOMMENDED Transformer VA		2000
Supply Amps		9.6
Primary Fuse		BY OTHERS
Secondary Fuse		FRN-15

MAIN BLOWER		
A	Size	40
	Quantity	2
	Model	12X9
	External Static Pressure (in W.C.)	1.25
	Total Static Pressure (in W.C.)	2.06
	SCFM	4,685
	Motor Brake HP	2.48
	Motor HP	5
	Motor Volts/Phase/Frequency(Hz)	208/3/60
	Motor FLA	17.5
	Motor Fuse	FRN-20
	Blower RPM	1137
	Starters	INCLUDED

HEAT EXCHANGER		
A	Size	40
	Primary Area (sq. ft)	21
	Secondary Area (sq. ft)	49
	Heating Surface (Total sq. ft)	70
	Primary Gage	16
	Secondary Gage	16
	Primary Material	430 S.S.
	Secondary Material	409 S.S.
	Condensate Drain	INCLUDED

FILTERS		
	Type	30/30
	Location-Side(2), Bottom (5)	2
	Arrangement-Flat(F), Vee(V)	V
	(Quantity) Size (in)	(4) 20X25X2
	Face Area (sq. ft)	13.9
	Face Velocity (FPM)	337.1

BURNER / MANIFOLD		
A	Size	40
	Fuel- Natural Gas (G), #2 Oil (O)	LP GAS
	Firing Seq.-(OO,LHL,3:1,10:1)	3:1
	Approval	UL/FM
	Gas Press. Available (in W.C.)	11"
A	Gas Press. Required	11"
	Model	JR15A-10
A	BTUH Output	400,000
A	Temperature Rise (deg. F)	79
	Motor HP	.25
	Motor Volts/Phase/Frequency(Hz)	115/1/60
	Motor FLA	3.5
	Flame Control Model	RM7895A
	Scanner	UV SCANNER
	Pilot Gas Press. Reg.	INCLUDED
	Main Gas Press. Reg.	INCLUDED
	High & Low Gas Press. Switch	NOT INC.
	Fuel Connection Size (in)	1

INDUCER		INCLUDED
	Motor HP	.25
	Motor Voltage/Phase/Frequency(Hz)	115/1/60
	Motor FLA	3.5
	Flue Connection Size (in)	8.5 x 6.5
	Min. Stack Diameter (in)	8
	Condensate Drain	NOT INC.

CONTROLS / FEATURES		
	Safety Fan/Limit	INCLUDED
	Room T'stat	NOT INC.

TOTAL WEIGHT: (#)	1,118
Shipment Section Weights (#)	
Heater/Blower	868
Vee Filter Section	250

ADDITIONAL FEATURES & OPTIONS	
	BLOWER BOTTOM PANEL
	5HP BLOWER MOTOR
	INSULATED BLOWER CABINET
	LP GAS
	SPARE FILTERS
	6 RIS VIBRATION ISOLATORS

Jackson & Church Product Specifications

Drawing #: PSH-14374A	Rev: A	Model: SDF-35/35/20-GMFU
Qty: 1	A-01/22/01	Job: CANTERBURY MUNICIPAL BUILDING
Date: 12/12/00		Tag: AHU-2

MAIN ELECTRICAL SERVICE		
Volts/Phase/Frequency(Hz)	208/3/60	
Unit FLA	20.6	
Disconnect Switch	INCLUDED	

CONTROL CIRCUIT		
Volts/Phase/Hz	115/1/60	
RECOMMENDED Transformer VA	2000	
Supply Amps	9.6	
Primary Fuse	BY OTHERS	
Secondary Fuse	FRN-15	

MAIN BLOWER		
Size	35	
Quantity	1	
Model	15X11	
External Static Pressure (in W.C.)	1.25	
Total Static Pressure (in W.C.)	1.86	
SCFM	3,830	
Motor Brake HP	1.9	
Motor HP	3	
Motor Volts/Phase/Frequency(Hz)	208/3/60	
Motor FLA	11	
Motor Fuse	FRN-15	
Blower RPM	909	
Starters	INCLUDED	

HEAT EXCHANGER		
Size	35	
Primary Area (sq. ft)	21	
Secondary Area (sq. ft)	49	
Heating Surface (Total sq. ft)	70	
Primary Gage	16	
Secondary Gage	16	
Primary Material	430 S.S.	
Secondary Material	409 S.S.	
Condensate Drain	INCLUDED	

FILTERS		
Type	30/30	
Location-Side(2), Bottom (5)	2	
Arrangement-Flat(F), Vee(V)	V	
(Quantity) Size (in)	(4) 20X25X2	
Face Area (sq. ft)	13.9	
Face Velocity (FPM)	275.5	

BURNER / MANIFOLD		
Size	20	
Fuel- Natural Gas (G), #2 Oil (O)	LP GAS	
Firing Seq.-(OO,LHL,3:1,10:1)	3:1	
Approval	UL/FM	
Gas Press. Available (in W.C.)	11"	
Gas Press. Required	11"	
Model	400B33	
BTUH Output	200,000	
Temperature Rise (deg. F)	48	
Motor HP	.025	
Motor Volts/Phase/Frequency(Hz)	115/1/60	
Motor FLA	1.1	
Flame Control Model	S8680J	
Scanner	SENSE ROD	
Pilot Gas Press. Reg.	INCLUDED	
Main Gas Press. Reg.	INCLUDED	
High & Low Gas Press. Switch	NOT INC.	
Fuel Connection Size (in)	0.75	

INDUCER		
Motor HP	.25	
Motor Voltage/Phase/Frequency(Hz)	115/1/60	
Motor FLA	3.5	
Flue Connection Size (in)	5 x 6	
Min. Stack Diameter (in)	6	
Condensate Drain	NOT INC.	

CONTROLS / FEATURES		
Safety Fan/Limit	INCLUDED	
Room T'stat	NOT INC.	

TOTAL WEIGHT: (#)	1,118	
Shipment Section Weights (#)		
Heater/Blower	868	
Vee Filter Section	250	

ADDITIONAL FEATURES & OPTIONS		
BLOWER BOTTOM PANEL		
3 HP BLOWER MOTOR		
INSULATED BLOWER CABINET		
LP GAS		
SPARE FILTERS		
6 RIS VIBRATION ISOLATORS		

Jackson & Church Product Specifications

Drawing #: PSH-14374B	Rev: A	Model: SDF-20-GMFU
Qty: 1	A-01/22/01	Job: CANTERBURY MUNICIPAL BUILDING
Date: 12/11/00		Tag: AHU-3

MAIN ELECTRICAL SERVICE		
Volts/Phase/Frequency(Hz)	208/3/60	
Unit FLA	17.1	
Disconnect Switch	NOT INC.	

CONTROL CIRCUIT		
Volts/Phase/Hz	115/1/60	
RECOMMENDED Transformer VA	2000	
Supply Amps	9.6	
Primary Fuse	BY OTHERS	
Secondary Fuse	FRN-15	

MAIN BLOWER		
A	Size	20
	Quantity	1
	Model	12X9
	External Static Pressure (in W.C.)	1.25
	Total Static Pressure (in W.C.)	1.96
	SCFM	2,360
	Motor Brake HP	1.2
	Motor HP	2
	Motor Volts/Phase/Frequency(Hz)	208/3/60
	Motor FLA	7.5
	Motor Fuse	FRN-10
	Blower RPM	1109
	Starters	INCLUDED

HEAT EXCHANGER		
A	Size	20
	Primary Area (sq. ft)	15.3
	Secondary Area (sq. ft)	37.8
	Heating Surface (Total sq. ft)	53.1
	Primary Gage	16
	Secondary Gage	16
	Primary Material	430 S.S.
	Secondary Material	409 S.S.
	Condensate Drain	INCLUDED

FILTERS		
	Type	30/30
	Location-Side(2), Bottom (5)	2
	Arrangement-Flat(F), Vee(V)	V
	(Quantity) Size (in)	(4) 20x25x2
	Face Area (sq. ft)	13.9
	Face Velocity (FPM)	169.8

BURNER / MANIFOLD		
A	Size	20
	Fuel- Natural Gas (G), #2 Oil (O)	LP GAS
	Firing Seq.-(OO,LHL,3:1,10:1)	3:1
	Approval	UL/FM
	Gas Press. Available (in W.C.)	11"
A	Gas Press. Required	11"
	Model	400B33
A	BTUH Output	200,000
A	Temperature Rise (deg. F)	78
	Motor HP	.025
	Motor Volts/Phase/Frequency(Hz)	115/1/60
	Motor FLA	1.1
	Flame Control Model	S8680J
	Scanner	SENSE ROD
	Pilot Gas Press. Reg.	INCLUDED
	Main Gas Press. Reg.	INCLUDED
	High & Low Gas Press. Switch	NOT INC.
	Fuel Connection Size (in)	0.75

INDUCER		
	Motor HP	.25
	Motor Voltage/Phase/Frequency(Hz)	115/1/60
	Motor FLA	3.5
	Flue Connection Size (in)	5 x 6
	Min. Stack Diameter (in)	6
	Condensate Drain	NOT INC.

CONTROLS / FEATURES		
	Safety Fan/Limit	INCLUDED
	Room T'stat	NOT INC.

TOTAL WEIGHT: (#)	855
Shipment Section Weights (#)	
Heater/Blower	650
Vee Filter Section	205

ADDITIONAL FEATURES & OPTIONS	
BLOWER BOTTOM PANEL	
2 HP 3PH BLOWER MOTOR	
INSULATED BLOWER CABINET	
LP GAS	
SPARE FILTERS	
6 RIS VIBRATION ISOLATORS	

Jackson & Church Product Specifications

Drawing #: PSH-14374C	Rev: B	Model: SDF-40/40/25-GMFU
Qty: 1	3/27/01	Job: CANTERBURY MUNICIPAL BUILDING
Date: 12/12/00		Tag: AHU-4

MAIN ELECTRICAL SERVICE		
Volts/Phase/Frequency(Hz)	208/3/60	
Unit FLA	27.1	
Disconnect Switch	NOT INC.	

CONTROL CIRCUIT		
Volts/Phase/Hz	115/1/60	
RECOMMENDED Transformer VA	2000	
Supply Amps	9.6	
Primary Fuse	BY OTHERS	
Secondary Fuse	FRN-15	

MAIN BLOWER		
Size	40	
Quantity	1	
Model	15X11	
External Static Pressure (in W.C.)	1.25	
Total Static Pressure (in W.C.)	2.22	
SCFM	5,150	
Motor Brake HP	3.47	
Motor HP	5	
Motor Volts/Phase/Frequency(Hz)	208/3/60	
Motor FLA	17.5	
Motor Fuse	FRN-20	
Blower RPM	1019	
Starters	INCLUDED	

HEAT EXCHANGER		
Size	40	
Primary Area (sq. ft)	21	
Secondary Area (sq. ft)	49	
Heating Surface (Total sq. ft)	70	
Primary Gage	16	
Secondary Gage	16	
Primary Material	430 S.S.	
Secondary Material	409 S.S.	
Condensate Drain	INCLUDED	

FILTERS		
Type	30/30	
Location-Side(2), Bottom (5)	2	
Arrangement-Flat(F), Vee(V)	V	
(Quantity) Size (in)	(4) 20X25X2	
Face Area (sq. ft)	13.9	
Face Velocity (FPM)	370.5	

BURNER / MANIFOLD		
Size	25	
Fuel- Natural Gas (G), #2 Oil (O)	LP GAS	
Firing Seq.-(OO,LHL,3:1,10:1)	3:1	
Approval	UL/FM	
Gas Press. Available (in W.C.)	11"	
Gas Press. Required	11"	
Model	400B33	
BTUH Output	250,000	
Temperature Rise (deg. F)	45	
Motor HP	.025	
Motor Volts/Phase/Frequency(Hz)	115/1/60	
Motor FLA	1.1	
Flame Control Model	S8680	
Scanner	SENSE ROD	
Pilot Gas Press. Reg.	INCLUDED	
Main Gas Press. Reg.	INCLUDED	
High & Low Gas Press. Switch	NOT INC.	
Fuel Connection Size (in)	0.75	

INDUCER		
Motor HP	.25	
Motor Voltage/Phase/Frequency(Hz)	115/1/60	
Motor FLA	3.5	
Flue Connection Size (in)	5 x 6	
Min. Stack Diameter (in)	6	
Condensate Drain	NOT INC.	

CONTROLS / FEATURES		
Safety Fan/Limit	INCLUDED	
Room T'stat	NOT INC.	

TOTAL WEIGHT: (#)	1,118	
Shipment Section Weights (#)		
Heater/Blower	868	
Vee Filter Section	250	

ADDITIONAL FEATURES & OPTIONS		
BLOWER BOTTOM PANEL		
5 HP BLOWER MOTOR		
INSULATED BLOWER CABINET		
LP GAS		
SPARE FILTERS		
6 RIS VIBRATION ISOLATORS		