



## CARBON FOOTPRINT



# FOUR-PIPE UNIT VENTILATOR ASSESSMENT: UV-1



**Date:** November 2011  
**Building:** K-12 schools  
**Floor:** First floor  
**Year installed:** 1971  
**Inspected by:** AEM  
**Serial number:** 111102870  
**Equipment Type:** Unit ventilator  
**Manufacturer:** X-Y-Z  
**Model:** HV-001  
**Size:** 1,200 cfm  
**Hp:** 0.5  
**Volts:** 460/3/60

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## EXISTING CONDITIONS AND DEFICIENCIES

Y	N	NA		Y	N	NA	
			<b>HVAC</b>				<b>ELECTRICAL</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the outdoor air louver and screen in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is motor high-efficiency?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is there anything blocking the outdoor air?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a localized disconnect?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the automatic dampers in good condition and operators functional?				
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the bypass damper control functional?				<b>PLUMBING</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the exterior enclosure in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are there localized drains to serve the unit?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the heating coil in good condition?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the cooling coil in good condition?				<b>MAINTENANCE</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the fan section in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	System flow diagram mounted by unit?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the fan discharge configuration acceptable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	O&M manual secured at unit or on file?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there anything blocking/covering discharge grille?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Workorder last completed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the piping overall in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is there a service contract for the unit ventilator?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the pipe insulation still intact and good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Predictive maintenance last completed?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the ductwork in good condition?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the unit insulation still in good shape?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the unit overall clean, with no vibration or noise?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the unit have any air or water leaks?				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unit installed per detail?				

## END OF EQUIPMENT USEFUL SERVICE LIFE (USL)

USL (YRS)		USL (YRS)	
40	Motor is x years old	20	USL benchmark is _
40	Controls are x years old	16	USL benchmark is _
40	Unit is x years old	20	USL benchmark is _

## STANDARDS AND CODE ISSUES

Y	N	NA		Y	N	NA	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does unit meet current codes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does unit/system meet current energy code?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is emergency power a requirement?				

## ENERGY CONSERVATION

Y	N	NA		Y	N	NA	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	End of USL, replace with higher efficient motor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Update main heating and cooling systems with two-way valves, high efficiency motors, and VFDs on pumping system.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can unit/system be retrofitted to meet latest energy code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Rebalance water system
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Install occupancy sensors in classrooms	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DDC controls added vs. pneumatic

## NOTES

1. Can unit be readily removed and replaced?	4. Are unit controls interactive with building ATC/computer?
2. Does unit operate 24/7 year-round or seasonal?	5. Are there energy meters (water, flow, electricity, etc.)?