



1/13/22

Woodburn School District staff and Administrators

Re: Air Quality and Systems function

Dear Staff

Under the current MOU section A-2. Regarding indoor air quality: (*in short*)

The District Staff Shall:

4. Mitigate indoor air quality with the focus on ventilation by:

- A. Adjusting building HVAC outside air dampers for maximum air exchanges possible.
  - a. Our systems are maintaining the current minimum per the CDC is to introduce 10% fresh outside air. Once room temperatures stabilize (reach temperature) typical outside damper opening can range from 10-50%, depending on outside air temperature. This is much easier for us to manage during this time of the year obviously cooler temperatures.
- B. Running HVAC exhaust system at least 2 hours before and after buildings will be or are occupied.
  - a. All systems currently are scheduled to come on at 4:00 Daily, and shut down at 7:00 PM
- C. Visually inspect exhaust fans monthly in health rooms, isolation rooms, restrooms to ensure that they are function and operating at full capacity.
  - a. These inspections are a monthly tasks for the head custodian. Irregularities are submitted as work request where needed. Emergencies are phoned in immediately. *The BAS controls system reports irregularities immediately. See exhibit 1 for a sample monthly inspection report.*

5. Mitigate indoor air quality with a focus on filtration by;

- A. Where available, provide windows that open to the outside or a regularly maintained ventilation system using CDC recommended MERV-13 filtration, or their equivalent for all workspaces.
  - a. The district has installed MERV-13 filters. Over the holiday break ... district wide all filters were changed per the replacement schedule.
  - b. Kindly remind staff that opening an outside window while the mechanical system is operating defeats the purpose of a higher quality MERV-13 filter. Staff can contribute to the indoor air quality by allowing the mechanical system to function as designed.
  - c. A list is provided of where the district provided either by recommendation of the IAQ report, or by approved request, individual room air HEPA units.

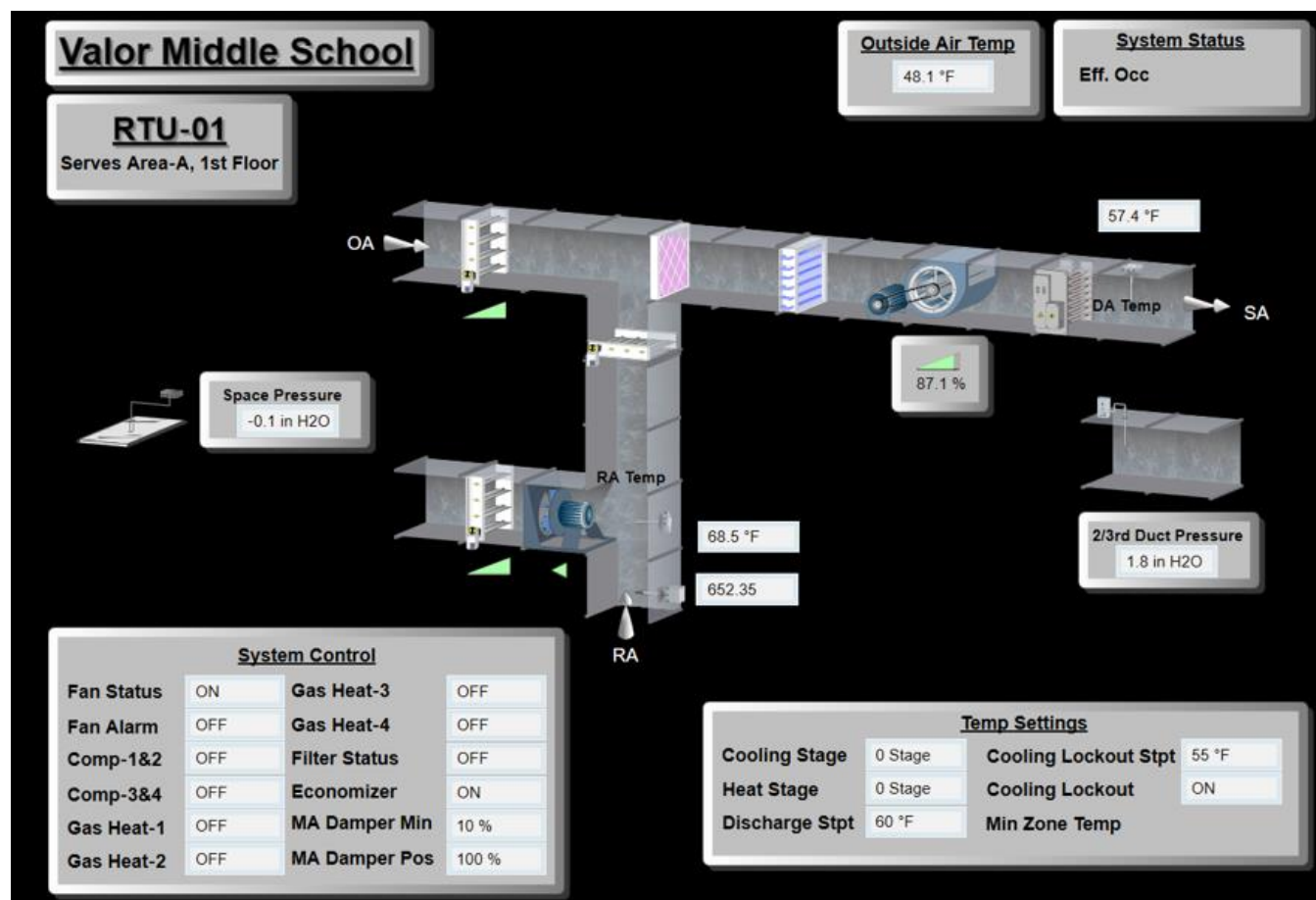
School districts, as a rule have always followed the ASHRAE recommended maintenance schedules related to mechanical units and indoor air quality strategies. This ensures our equipment is providing optimum comfort and efficiency. Facilities has also partnered with HVAC industry experts where and whenever needed to ensure that the safest possible environment is available for students, staff and the public.



## BAS controls (Building Automated Systems) snapshots

For this report, I am providing once again real-time snap shots of the system controls, this time of Valor MS, the High School and a single room at French Prairie Middle School. All of these were taken at or about 11:45 AM today 1/13.

At Valor, this RTU-01 supplies heat and air to *classrooms 103-109*. Please note the low CO2 level of 652.35. This indicates a very high flow.



The CO2 level is important to us because this number tells us how much fresh outside filtered air we have in our spaces. CO2 level in outside air typically measures at or about 400 PPM. The typical system will have set points in the industry standard for classrooms at set at 1100 PPM. Facilities has lowered the set point to 850. By default we have set up alarms in the software to alert us to conditions outside our desired set points. With 850 as the ceiling, we would receive an alarm if the reading exceeds 850. The lower CO2 level is an indicator of the amount of fresh outside filtered air in the space.



## Woodburn School District Facilities Department

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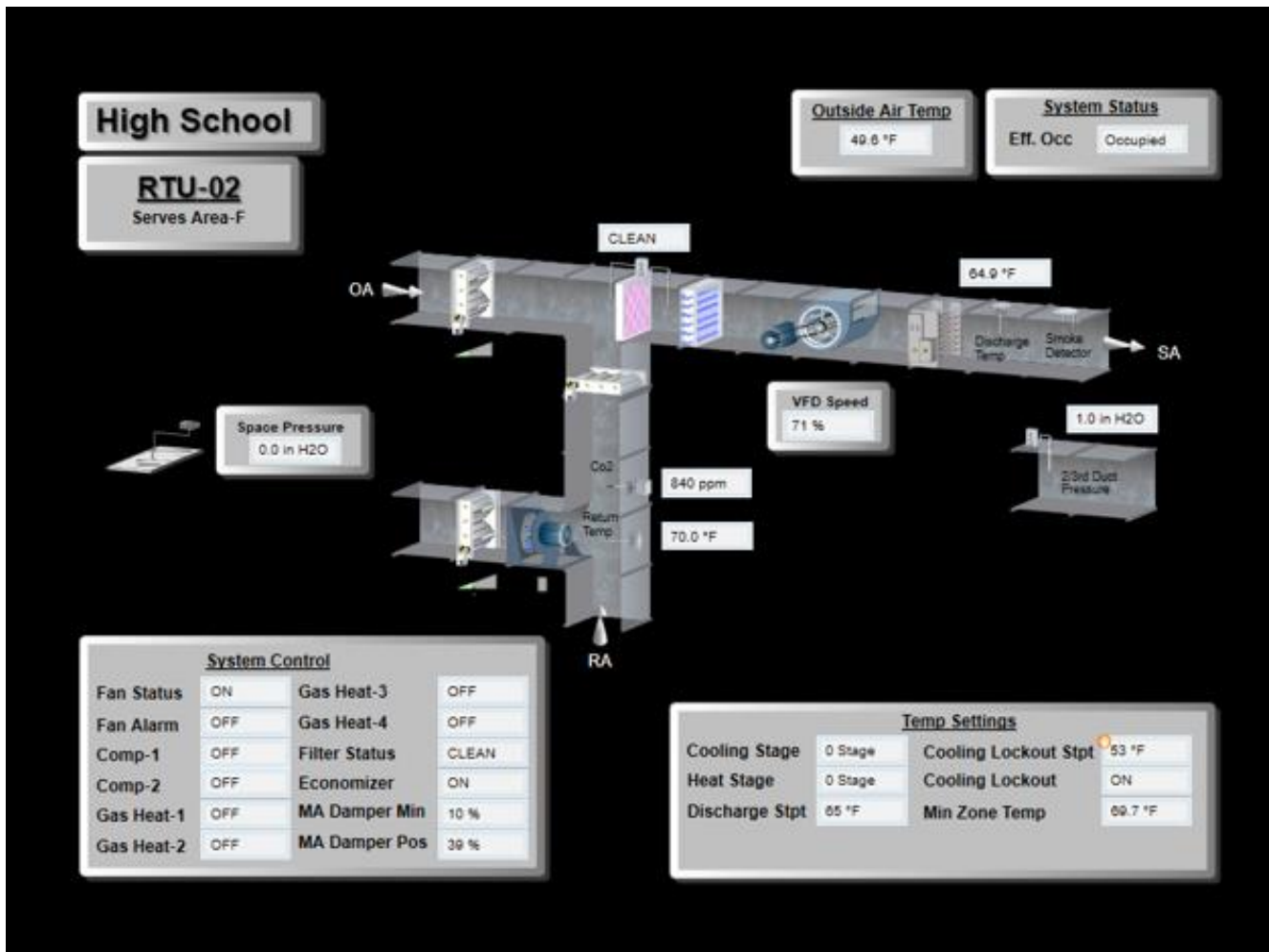
Phone 503-981-2714

Fax 503-981-2718

One of the recommendations by the CDC/ASHRAE is to exchange air six times per hour in classroom spaces. Per building/mechanical code all units are spec'd/sized accordingly to meet this minimum requirement thus providing the required turnover rate right. As mentioned above the industry standard for classrooms is 1100 PPM, easily achieved with a 10% damper opening. With our current desired CO2 set point of 850 we are able to instruct our system to maintain that lower number.

The controls instruct the mechanical units to adjust fan speeds and damper positions to increase airflow. We can monitor that the instructions are carried out via the BAS controls. We can do this in the facilities office or remotely via VPN.

Here we have snapshot from the High School. **RTU-2 services rooms 318-21**. Note here that the CO2 is close to the 850 set point but well under the industry standard still. In addition, the damper is only opened 39%. Should this continue to hover closer our selected set point we would increase damper position.



To demonstrate we adjusted the VFD fan Speed to 80% and opened the damper to 50% and within 15 minutes, the CO2 dropped to 767. Below is real-time shot of the same RTU-2 after the adjustment.

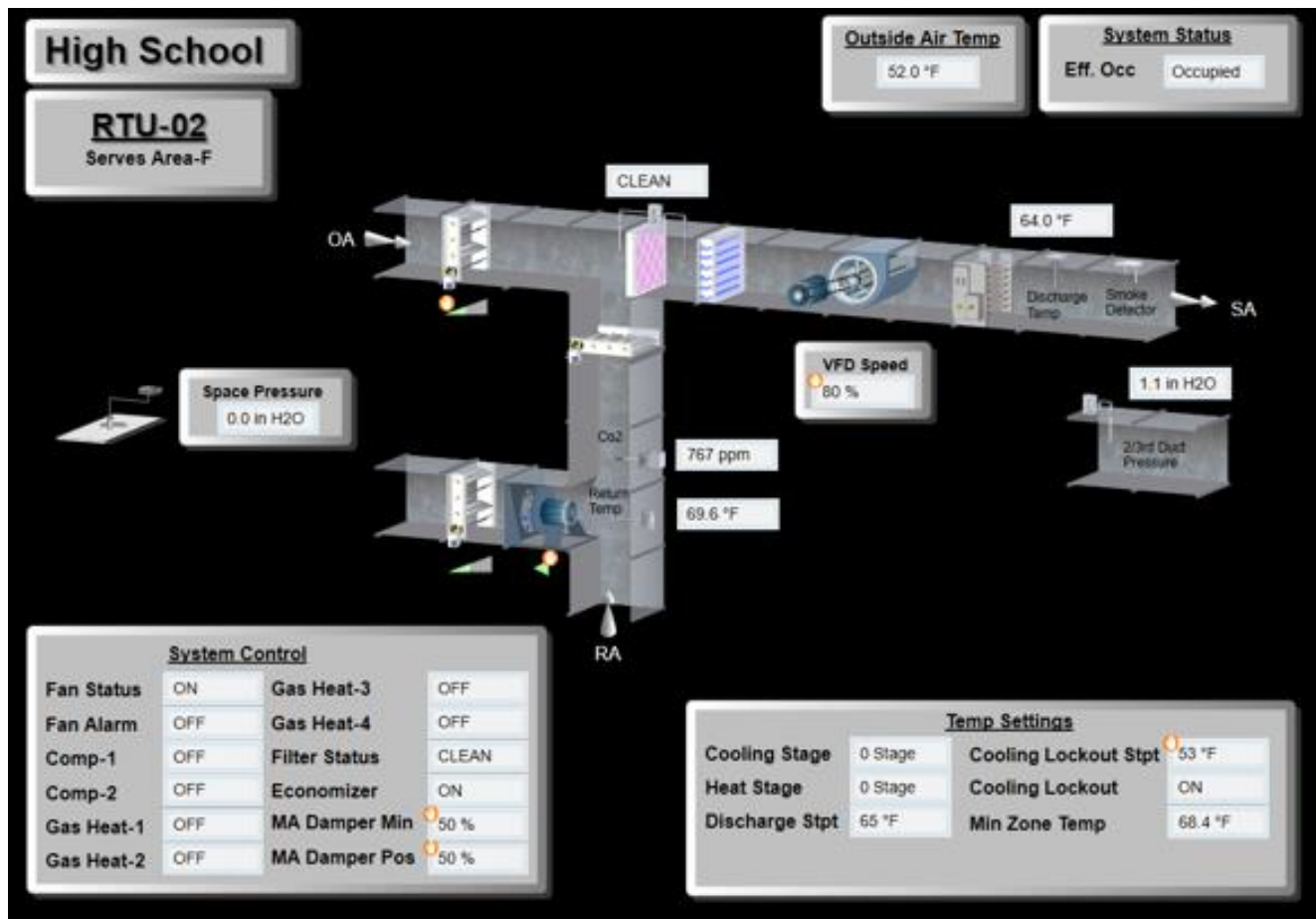


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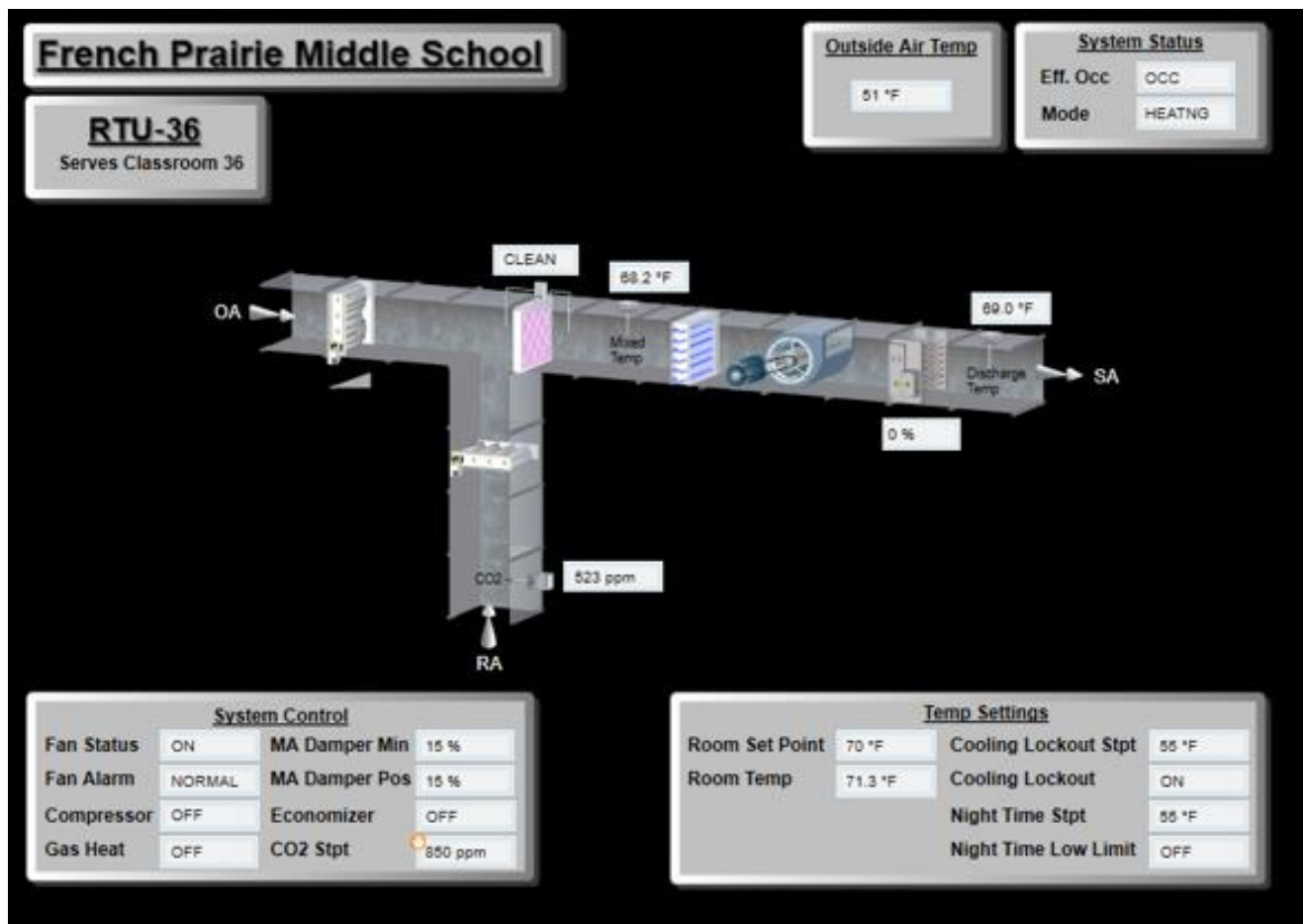
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Here we have **room 36** at French Prairie Middle School. In addition, note please the low CO2 level. I will point out also that the “pink” color equals “clean”, this is the filter condition.



*Exhibit 1* the most current monthly inspection report that includes a section for HVAC

Woodburn High School & CLC				
Date of Inspection & Testing:				
Authorized Building Inspector:				
	Yes	NO	N/A	W.O. #
<b>FIRE BLANKETS (where applicable)</b>				
Fire blanket is stored in its designed location and is easily accessible	y			
Fire blanket is free of tears or holes	y			
<b>FIRE SPRINKLERS &amp; RISER ROOMS</b>				





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All fire sprinkler heads are in place and in good condition (no rust, corrosion or loading)	y			
Riser Room is free of leaks and components are working properly	y			
A 12-in to 18-in height clearance is maintained (depending on situation), especially in storage areas	y			
<b>FIRE ALARM CONTROL PANEL</b>				
Monthly fire drill was performed and system performed as designed	y			
FACP is cleared of all troubles and is functioning normally	y			
<b>FIRE EXTINGUISHERS</b>				
All fire extinguishers are in place, fully charged with current annual test tags	y			
Monthly Inspections are current and initialed by yourself or designee	y			
Fire extinguishers are mounted properly at the approved height and are easily accessible	y			
<b>FIRE DOORS &amp; MAGNETS</b>				
All fire doors close and latch when fire alarm is activated	y			
Check, Closing & Latch speeds of the doors move smoothly until closed	y			
Door magnets are secured properly to the wall and release as designed	y			
<b>EMERGENCY LIGHTS</b>				
All emergency and exit lights are tested and fully functional	y			
Heads are pointed at an exit path and illuminate it properly	y			
<b>ROOF DECKING, DRAINS AND GUTTERS</b>				
Scupper and emergency overflow drains are clear of leaves and other debris	y			
Roof is clear of debris and no leaks are present		y		
Roof hatches, exterior ladders, expansion joints & parapet walls are in good condition	y			
<b>HVAC UNITS</b>				
Gas lines are in good condition and free from rust/obstructions	y			
Belts are in good condition and filters were changed out during the last rotation	y			
Ball/Sleeve bearings seem to be in good condition (no squeaking or other cues)	y			
<b>BOILERS, HOT WATER HEATERS &amp; DOMESTIC WATER STORAGE TANKS</b>				
No faults are present on boilers	y			
No leaks on supply lines, valves, air separators, or bleed-offs	y			
Circulation pumps are working	y			
Storage tanks are in good condition and no leaks are present on supply lines	y			
<b>WALK-IN COOLER &amp; FREEZER</b>				
Condenser Coils are clean	y			
Evaporator coils and fans are clean	y			
Thermostat is operating as designed	y			
Interior door gaskets are okay and heated jamb is operating normally		y		
Drain lines are clean and clear	y			
No items are blocking airflow from inside or outside of units	y			
<b>FLOOR DRAINS</b>				
Drains are well lubricated weekly/monthly with either water or a microbe based solution	y			
Drains are not blocked or clogged	y			
Catch basins and/or strainers are kept clean	y			
<b>EXTERIOR LIGHTS</b>				



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All exterior lights have been checked and are operating as designed	y			
Chronometric timers are properly set and photoelectric eyes are working properly	y			
<b>EMERGENCY GENERATOR</b>				
Emergency Generator performs weekly auto test and is functioning properly	y			
Fuel level is at least 70% full or work order generated for refueling	y			
Both the Control/Operation and Display panels are clear of all faults	y			
<b>ELEVATOR, CONTROL ROOM &amp; INTERCEPTOR</b>				
Emergency phone contacts/calls out to the elevator monitoring emergency operator	y			
No leaks are present in the interceptor and control room is kept clear of clutter	y			
Sump pump in the elevator pit is functioning as designed and floor is dry	y			
Elevator car is properly illuminated and is not used to store items	y			
Inspection report and License card is in plain view and up-to-date	y			
<b>LECTORIUM HANDICAP CHAIR LIFT</b>				
Test lift by operating it all the way up and back down	y			
Lift chains located inside the right cover panel are free from hitching and squeaking	y			
Chair loading sites at top and bottom are free from clutter (48-in)	y			
Inspection report and license card is in plain view and up-to-date	y			
<b>SOLAR GRID</b>				
panels are free from dirt and debris				
panels are free from cracks and breaks				
Energy output panel and conduit raceways are visually operating correctly				
DC Collection				
<b>SHARPS CONTAINER</b>				
Sharps containers, needle nose pliers and gloves are in designated location	y			
Containers are not cracked or compromised in any way	y			
<b>ASBESTOS PLAN</b>				
The Asbestos Management Plan is in its designated location and is kept up to date			y	
<b>LOCKOUT/TAGOUT</b>				
Written program is posted at station and is accessible	y			
All Lockout/Tagout devices are present at the Station and accounted for	y			
<b>SDS CATALOG/STATION</b>				
The Safety Data sheets (SDS) catalog is in its designated location	y			
Discontinued items are removed from catalog and is kept up-to-date	y			
<b>FIRST AID KITS</b>				
First Aid kits are in their designated locations	y			
Kits contain all required supplies, and used items have been replaced	y			
Expired supplies are replaced when needed	y			
<b>EYE WASH &amp; EMERGENCY SHOWER</b>				
Eye wash stations are accessible, have been tested, and function as designed	y			
Emergency showers function properly and basin/drain pans are kept clear of clutter	y			
<b>AED</b>				
Green check on AED unit in alarmed cabinet (batteries)	y			
Cabinet alarm is functioning properly when door is opened	y			



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Adult and pedipads are up-to-date	y			
<b>CUSTODIAL EQUIPMENT</b>				
Custodial equipment is in good working condition	y			
No safety/electrical problems are present within equipment	y			
<i>Please correct any deficiencies in the above facility inspection. If you are not</i>				
<i>able to make the corrections yourself then submit a work order to the</i>				
<i>Maintenance department and follow up to ensure that the correction is made.</i>				
<b>This inspection form is to be completed and submitted to the District's</b>				
<b>Facilities office on the FIRST TUESDAY OF EACH MONTH!!!</b>				

The Facility department takes pride in doing its part to provide a safe and comfortable learning environment and has always diligently done its best to maintain all our systems, keeping them in optimum running condition. In addition, will continue working proactively to meet the needs of the Woodburn School District students, staff and the public.

This report prepared by

Ivan L. Leigh  
Facility Department  
Woodburn School District

Thank you