

**Central Berkshire Regional School  
District**

**PREVENTIVE  
MAINTENANCE  
MANUAL**

Updated as of: OCTOBER 25, 2016

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## Introduction – Preventive Maintenance

This handbook details the procedures and forms used to identify and prioritize Preventive Maintenance activities in the Central Berkshire Regional School District.

Preventive Maintenance (PM) is a proactive program designed to ensure on-going operations of District facilities with minimal impact to the educational environment from unforeseen equipment failures.

This manual contains procedures and forms for completing inspections of each school's site, building structure, roof envelope, and all classrooms and common areas. Additional photocopies of inspection forms are to be made as needed.

The PM forms and checklists are to be completed by the Head Custodian or Building Principal, or the Director of Finance and Operations. Initial inspections mandate the use of individual forms for each room or location. Going forward the inspection forms are to be used as a reference and only problem areas are to be noted.

Completed inspection forms are to be returned to the Director of Finance & Operations. The condition of each facility as well as any concerns noted on the inspection forms will be entered into the District database. Where applicable, the manufacturers Operation Manual will also be referenced to note all required scheduled maintenance to be completed.

Work Orders will be generated based on a priority of needs. The highest priority work orders will be those with the greatest potential impact on the health and safety of the students and staff members.

PM Inspections are to be completed annually or bi-annually as noted. Inspections are to be completed when students or staff are not present in the building. Repairs and PM Activity may take place when students and staff are present in the building, as long as the activity does not serve as a distraction or pose any safety concerns. Completed PM activities are to be recorded in the District database.

## 1. Site Inspection Procedure

1. The site location for each school in the District will be formally inspected on an annual basis.
2. The annual inspection will be completed utilizing the Site Inspection Report form. As much as possible all minor deficiencies shall be repaired during the course of inspection. Other areas needing attention are to be recorded and prioritized for action.
3. DRIVEWAYS/PARKING/BUS AREA – Physically inspect the entrance and exit drives, all parking lots and loading and unloading areas. When inspecting surfaces note any potholes and overall condition.
4. SIDEWALKS – Physically inspect sidewalks. Pay particular attention to “heaved” and uneven areas. Mark heaved areas with traffic paint until repaired.
5. HARD SURFACE COURTS – Physically inspect all play areas and outdoor seating. Note overall condition.
6. SITE LIGHTING – Physically inspect all outdoor area light fixtures/poles. Energize lights and check lamps for proper operation. Set time clocks if applicable.
7. FENCING – Physically inspect fencing. Check gates for proper operation and security.
8. TREES - Visually inspect all trees. Check for root damage to surrounding area, hanging branches, noticeably cracked branches, apparent diseased or dying areas. Check for clearance under utility power lines. Identify any trees growing into the power lines and notify the utility company for trimming.
9. PLAY AREAS – Physically inspect play area and equipment. Check for broken and missing equipment components. Check the condition of the ground-cushioning agent. Assess the overall condition of the play area and note any safety concerns.

## 2. Building Inspection Procedure

1. The physical facility of each school in the District will be formally inspected on an annual basis.
2. During the inspection staff shall note findings on the Building Inspection Report form. Minor deficiencies shall be repaired during the course of inspection. Other areas needing attention shall be recorded and prioritized for action.
3. EXTERIOR WALLS – Physically inspect the wall condition for cracks, dryrot, paint deficiencies, and graffiti. Any crack or deterioration that may severely affect the integrity of the structure shall be brought to the attention of the Director of Finance and Operations.
4. FOUNDATION – Physically inspect the exterior foundation visible above ground. Particular attention shall be paid to cracks and/or separation at the foundation line.
5. EXTERIOR DOORS/HARDWARE – Physically inspect all building entry doors. Inspect the door for overall condition and security. Tighten and lubricate hinges as necessary. Inspect the closer for leaks and mounting. Verify the closer is damping properly and adjust if needed. Inspect panic hardware and locksets.
6. WINDOW – WALL SYSTEMS – Physically inspects the window systems for integrity. Note any cracked and broken glazing, assess the condition of glazing putty, if applicable, and assess the general condition and operation of the window system. Inspect condition of window wall solid wall panels.
7. ROOFS – Refer to Roof Inspection Procedures.

### 3. Roof Inspection Procedure

1. All District roofs will be inspected bi-annually.
  - Inspect all roofs prior to the beginning of the winter season during the month of December.
  - Inspect all roofs prior to the beginning of the summer season during the month of June.
2. During the inspection the staff shall note findings on the Roof Inspection Report form. Where practical, minor deficiencies shall be repaired during the course of inspection using roofing pitch. Other areas needing attention shall be recorded and forwarded to the Director of Finance and Operations for action.
3. ROOFS - Physically inspect all roof surfaces for excessive wear, blistered areas, areas of standing water, or separations of the roofing materials. Inspect and seal flashings.
4. EAVES/SOFFITS – Physically inspect all eave and soffit overhangs for dry rot, sagging, and paint deficiencies.
5. GUTTERS - Physically inspect all gutters, downspouts, and roof scuppers/drains for a free and unrestricted flow. Report and repair any deficient components. Clear obstructions and remove debris.
6. LEAKS - If a leak has been reported and the source is not readily apparent, run water across the roof surface to determine the source. Make repairs as needed. If substantial roof repairs are needed make temporary repairs, as necessary and notify the Director of Finance and Operations.

#### 4. HVAC Inspection Procedure

##### 1. All District HVAC Systems will be inspected bi-annually.

- Inspect all cooling units prior to the beginning of the summer season during the month of May.
- Inspect all heating units prior to the beginning of the winter season during the month of September.

##### 2. During the inspection staff shall note findings on the HVAC Inspection Report form. Minor deficiencies shall be repaired during the course of inspection. Other areas needing attention shall be recorded and forwarded to the Director of Finance and Operations for action.

##### 3. AIR CONDITIONING UNITS / CHILLERS –

- a. Physically inspect and clean all coils (evaporator and condenser), inspect and lubricate motors and shafts (if applicable), inspect fan belts (if applicable), inspect plenums/duct connections, inspect air filters, inspect major electrical connections, inspect condition of condensate drain and drain pan, assess overall condition of unit.
- b. Energize unit and check general operation. Record operating pressures. Record supply and return temperatures. Check for proper airflow at registers. Verify motor current draw is within manufacturer's specifications. Check thermostat for proper operation.

##### 4. HEATING UNITS / BOILERS -

- a. Physically inspect surrounding area for housekeeping (no flammable storage, etc), inspect and clean gas valve and burner assembly (if applicable), leak check all gas piping, inspect flue for proper installation, inspect and lubricate motors and shafts (if applicable), inspect fan belts (if applicable), inspect plenums/duct connections, inspect air filters, inspect major electrical connections, inspect safety devices (relief valves, hi-limits, etc), assess overall condition of unit.
- b. Energize unit and check general operation. Record supply and return temperatures. Check for proper airflow at registers. Verify motor current draw is within manufacturer's specifications. Check thermostat for proper operation.

## 5. Retro Commissioning

- a. In an effort to provide building occupants comfort, and maintain fiscal responsibility, the district will continue to pursue existing building commissioning. Building commissioning is a systematic process for identifying and implementing operational and maintenance improvements in a building to ensure continued good performance over time. The intent of the process is to optimize the performance of building subsystems as well as how they function together. Retro commissioning focuses on operations and maintenance improvements and diagnostic testing, although needed capital improvements may be identified and recommended through the process.

## 5. Classroom And Common Area Inspection Procedures

1. All District classrooms and common areas at all sites will be inspected annually.
2. During the inspection staff shall note findings on the Classroom Inspection Checklist or the Hallway/Restroom Inspection Report form. Minor deficiencies shall be repaired during the course of inspection. Other areas needing attention shall be recorded and forwarded to the Director of Finance and Operations for action.
3. ENTRANCE – Physically inspect the entrance area. Check ramp and handrails, if applicable. Inspect the door for overall condition and security. Tighten and lubricate hinges as necessary. Inspect the closer for leaks and mounting. Verify the closer is damping properly and adjust if needed. Inspect lockset.
4. FLOOR COVERING – Physically inspect all floor areas. Check for loose/worn carpet and/or floor tile. On raised foundation wood subfloors, inspect for dryrot, especially at entry threshold area. –
5. WALLS – Physically inspect all interior wall surfaces. Check for loose or missing wall base. Inspect for holes. Note condition of wall coverings and paint.
6. WINDOWS – Physically inspect all windows for proper operation and security. Check all hardware.
7. CEILINGS – Physically inspect ceiling area. Investigate all water-stained areas. For suspended ceilings, ensure tiles are properly installed. Replace damaged/missing tiles.
8. ELECTRICAL – Physically inspect all light fixtures, switches and outlets. Ensure cover plates are in place and secure. Check/tighten electrical connections at breaker panels.
9. INTERCOM – Verify operation of intercom.
10. PLUMBING – Physically inspect all plumbing fixtures and connections. Check all risers, stops, and traps for leaks. Rebuild faucets. Repair/replace any leaking fixtures. Verify drains flow freely.
11. HVAC – Physically inspect the visible components in the classroom. Verify the registers/grills are in place and open. Inspect the thermostat. Assess the operation of the HVAC system.
12. EXHAUST FANS – Remove, clean, and lubricate exhaust fan assemblies.

**Appendix**

**Site Inspection Form.....A**  
**Building Inspection Form .....B**  
**Roof Inspection Report .....C**  
**HVAC Inspection Form .....D**  
**Classroom Inspection Checklist.....E**  
**Common Area/Restroom Inspection .....F**

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**PREVENTIVE MAINTENANCE  
SITE INSPECTION FORM**

Site Name:		
Site Address:		
Area/Item Inspected:	Condition (check one)	Comments:
Parking/Bus Area	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Sidewalks	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Hard-surface Courts	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Site Lighting	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Fencing	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Trees	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Play Area 1(indicate location))	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Play Area 2 (indicate location)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Play Area 3 (indicate location)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
<b>OVERALL CONDITION OF SITE</b> (check box) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor General Remarks:		
Repairs Needed	WO Number:	Repaired By:
Inspected by (print name):	Date:	

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**PREVENTIVE MAINTENANCE – BUILDING INSPECTION FORM**

Site Name:			
Site Address:			
North Wall (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
West Wall (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
South Wall (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
East Wall (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
Window Systems (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
Entry Doors/Hardware (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
Comments:			
<b>OVERALL CONDITION OF BUILDING</b> (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
General Remarks:			
Repairs Needed	WO Number:	Repaired By:	
Inspected by (print name):	Date:		

Appendix B

**Central Berkshire Regional School District**

**PREVENTIVE MAINTENANCE  
ROOF INSPECTION REPORT**

Site Name:		
Building / Wing Number:		
Roof Type (rubber, asphalt shingle, metal, foam, etc)	Pitch:	
Roof Age (if known)		
Roof Surface Condition (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair
<input type="checkbox"/> Poor Comments:		
Equipment Flashings (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair
<input type="checkbox"/> Poor Comments:		
Roof to Wall Connections (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair
<input type="checkbox"/> Poor Comments:		
Roof Gutters and Drains (check box)	<input type="checkbox"/> Clean and unobstructed	<input type="checkbox"/> Needs Repair
Comments:		
<b>OVERALL CONDITION OF ROOF SYSTEM</b> (check box)	<input type="checkbox"/> Good	<input type="checkbox"/> Fair
<input type="checkbox"/> Poor General Remarks:		
Repairs Needed	WO Number:	Repaired By:
Inspected by (print name):	Date:	

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**PREVENTIVE MAINTENANCE HVAC INSPECTION FORM**

Site Name:		
Location:		
HVAC Unit Make and Model:		
Serial Number:		
Tonnage/Capacity:		Date Installed:
Filter Size and Count:		
Inspection Checklist:		
<input type="checkbox"/> Condenser Coil	<input type="checkbox"/> Disconnect	
<input type="checkbox"/> Condenser Fan	<input type="checkbox"/> Electrical Connections	
<input type="checkbox"/> Refrigerant Charge	<input type="checkbox"/> Natural Gas Connection	
<input type="checkbox"/> Condensate Drain	<input type="checkbox"/> Ducting/Registers/Grilles	
<input type="checkbox"/> Gas Valve/Burner	<input type="checkbox"/> Air Filter	
<input type="checkbox"/> Blower	<input type="checkbox"/> Fan Belts	
<input type="checkbox"/> Evaporator Coil	<input type="checkbox"/> Lubricate Motors/Shafts	
<input type="checkbox"/> Thermostat	<input type="checkbox"/> Pads (evaporation cooler only)	
<input type="checkbox"/> Other (describe):		
Discharge Pressure (5 ton and larger):		Return Air Temp:
Suction Pressure (5 ton and larger):		Supply Air Temp:
<b>OVERALL CONDITION OF HVAC</b> (check box) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
General Remarks:		
Repairs Needed	WO Number:	Repaired By:
Inspected by (print name):		Date:



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**PREVENTIVE MAINTENANCE  
COMMON AREA/RESTROOM INSPECTION FORM**

Site Name:		
Room Number:	Inspection Type (check one) <input type="checkbox"/> Common Area <input type="checkbox"/> Restroom	
Area/Item Inspected:	Condition (check one)	Comments:
Entry Ramps/Handrails	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Doors and Hardware	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Floor Covering (Carpeting)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Floor Covering (VCT/ceramic)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Wall Base	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Walls and Paint	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Windows	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Ceiling	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Light Fixtures	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Switches and Covers	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Outlets and Covers	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Breaker Panel	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Water Closet	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Urinal	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Lavatory	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Floor Drain	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Exhaust Fan	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
Other (list):	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor	
<b>OVERALL CONDITION OF HALLWAY/RESTROOM</b> (check box) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor General Remarks:		
Repairs Needed	WO Number:	Repaired By:
Inspected by (print name):	Date:	

Appendix F