HARFORD COUNTY PUBLIC SCHOOLS

COMPREHENSIVE MAINTENANCE PLAN

2023





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BOARD OF EDUCATION OF HARFORD COUNTY

INFORMATIONAL REPORT PRESENTATION OF THE 2023 EDUCATIONAL FACILITIES MASTER PLAN AND COMPREHENSIVE MAINTENANCE PLAN

June 12, 2023

Background Information:

The <u>Rules, Regulations and Procedures for the Administration of the Public-School</u> <u>Construction Program</u> (PSCP) require that each Local Education Agency (LEA), submit annually, an amended copy of the Educational Facilities Master Plan (EFMP) by July 1, 2023. Additionally, the PSCP requires each LEA to prepare and submit an updated Comprehensive Maintenance Plan by October 1, 2023.

Discussion:

The EFMP is a planning tool that addresses the LEA's projected facility needs. Coordinating with HCPS stakeholders and the Harford County Government, the plan is reviewed and updated annually. The 2023 EFMP includes all the essential elements required by the State and has been reviewed by the appropriate school system personnel. The Capital Improvement Projects proposed in this plan will be the basis for the FY25 Capital Improvement Program. The EFMP Table of Contents and the Timeline of Capital Improvement Projects are attached.

The Timeline of Capital Projects includes project funding needs through FY 2032. The Balancing Enrollment Plan, approved by the Board of Education (BOE) on February 14, 2022, included two updates to the major project timeline. The first changed the Harford Academy Replacement Project to a New Combination Harford Academy and Elementary School. The second added Bel Air Middle School to the timeline to address both the systemic and capacity concerns at the school.

The State completes a facility assessment of all public schools in Maryland. The results of that assessment provide updated facility condition data. HCPS utilizes the resulting data with identified facility needs, capacity demands, Blueprint requirements and funding outlook to update the capital improvement priorities in the out years.

The Comprehensive Maintenance Plan is a tool to develop and improve the facilities maintenance program. Utilizing the guidelines prescribed by the Interagency Committee, the Department of Facilities reviews and updates the plan annually. The 2023 Comprehensive Maintenance Plan Table of Contents is attached.

The information, analysis, and conclusions within these two documents serve as a guide in the development of the priorities for the Capital Improvement Program.

Superintendent's Recommendation:

The Superintendent of Schools recommends that the Board of Education accept the presentation of the 2023 Educational Facilities Master Plan and the 2023 Comprehensive Maintenance Plan.

HARFORD COUNTY PUBLIC SCHOOLS

COMPREHENSIVE MAINTENANCE PLAN

PURPOSE OF THE PLAN

This comprehensive maintenance plan is established to develop, maintain, and/or improve the maintenance program of the public school system to support the delivery of educational programs and services and to provide a safe and healthy environment as effectively and efficiently as possible.

OBJECTIVES OF MAINTENANCE

The primary objective of the maintenance program is the maintenance of buildings, grounds, and fixed equipment through repairs or replacement during the 40-year life expectancy of the building. Specifically, this can be further broken down as follows:

- 1.) To provide buildings which function at top efficiency.
- 2.) To maintain the plant buildings and grounds and fixed equipment in such a manner as to eliminate or reduce to acceptable levels fires, accidents, and safety hazards.
- 3.) To provide continuous use of facilities without disruptions to the educational program.
- 4.) To protect public property by planned, scheduled, and repair/ preventive maintenance.
- 5.) To conserve energy by ensuring that the maximum results are obtained with minimum expenditure of energy.
- 6.) To provide maintenance program which will produce the maximum amount of maintenance for the minimum dollars expended.

MAINTENANCE CATEGORIES

Scheduled Maintenance

- 1.) Preventive Maintenance It is the goal of a preventive maintenance program that equipment will be inspected and serviced as required to prevent costlier failures. Attached to this Comprehensive Maintenance Plan is a detailed summary of the Preventive Maintenance Program. Along with this narrative is a TASK LISTING for one of the identified areas for Preventive Maintenance (Make-up Air Unit). Additionally, a list of thirty-three (33) identified areas of mechanical equipment is attached that is the major thrust of the program as well as the filter, drive belt and filter frame specifications.
- 2.) Scheduled Repairs Scheduled maintenance has the goal of keeping the facilities in proper operating condition through regular service of equipment and facilities. It is, therefore, imperative that a schedule be established to ensure proper budgeting.

The schedule itself is not an exact timetable because the exact month or even year of a failure or breakdown cannot be determined in advance. Rather, it is a prediction indicating that over a

period of time a piece of equipment must be replaced or serviced if it is expected to function properly. The frequencies used are those recommended by the Interagency Committee or are based on local experiences and conditions.

Repairs or replacements are not made strictly by the schedules but are made based on the necessity of corrective action. The schedule or replacement must be flexible but will be accurate from a long-range budget-planning standpoint.

- 3.) Modernization and Alterations Fire alarm replacement at Bel Air Middle and Fountain Green Elementary, partial paving and resurfacing at North Bend Elementary, roof replacement at Swan Creek and Bakerfield Elementary, and floor replacement at Fallston Middle School.
- 4.) Preventive maintenance and repair on the boilers, sprinkler systems, stage rigging, and fire alarm systems throughout Harford County Public Schools. Preventive maintenance was performed at all three (3) natatorium locations.

Unscheduled Maintenance

- 1.) Unscheduled Repairs Requests for repairs are received through our computerized work order system. They are then reviewed, prioritized, and assigned to appropriate personnel for completion. Acknowledgment copies are signed by school personnel when work is complete. A total of 19,424 work orders were submitted between 7/1/2022 6/9/2023. During that time period 12,380 work orders were completed. This computerized system allows for an accurate inventory control and an accurate tracking of labor, materials/parts and all associated departmental costs. At this time, all buildings are set up to submit work requests electronically.
- 2.) Vandalism and Security Related Repairs Facilities is prepared to respond to any acts of vandalism or problems relating to proper building security twenty-four (24) hours a day seven (7) days a week.

While specifics relating to this area cannot be identified in advance, historical information and community trends are used to forecast needs.

Deferred Maintenance

1.) As a part of the prioritizing process, it becomes necessary, due to budget constraints, to defer some projects. This activity occurs in a minimal amount. Some other projects are deferred because of personnel shortages and are addressed later.

Capital Improvement Program

The Comprehensive Maintenance Plan (CMP) incorporates and mirrors many components of the CIP. Specific categories of the CMP are boiler replacement, floor covering replacement, fire alarm replacement, resurfacing, roof, HVAC, and vehicle replacement. Priorities are established with both programs in tandem.

BLEACHER INSPECTIONS AND REPAIRS

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Bel Air High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
C. Milton Wright High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Edgewood High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Fallston High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Harford Technical High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Joppatowne High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
North Harford High	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Patterson Mill High/Middle	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Aberdeen Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Bel Air Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Edgewood Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Fallston Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Havre de Grace High/Middle	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out	In/Out
Magnolia Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
North Harford Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Southampton Middle	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Abingdon Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Church Creek Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Deerfield Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Emmorton Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Forest Hill Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Forest Lakes Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Fountain Green Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Joppatowne Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
North Bend Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Prospect Mill Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Red Pump Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Ring Factory Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Swan Creek	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
Youth's Benefit Elementary	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor

BOILER INSPECTIONS

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High			X		X		X
Bel Air High	Х	Х		Х		X	
C. Milton Wright High			X		X		X
Edgewood High			X		X		
Fallston High		Х		X		X	
Harford Technical High		Х		Х		X	
Joppatowne High	Х		X		Х		X
Patterson Mill High/Middle	Х	Х		Х		X	
Aberdeen Middle			X		X		X
Bel Air Middle	Х	Х		Х		X	
Edgewood Middle	Х	Х		X		X	
Fallston Middle	Х	Х		X		X	
Havre de Grace Middle/High	Х	Х		Х		X	
Magnolia Middle	Х		X		X		X
North Harford Middle			X		X		X
Southampton Middle	Х	Х		X		X	
Abingdon Elementary			X		X		X
Bakerfield Elementary	Х	Х		X		X	
Church Creek Elementary			X		X		X
Churchville Elementary			X		X		X
Deerfield Elementary			X		X		X
Emmorton Elementary (3)			X		X		X
Forest Hill Elementary			X		X		X
Forest Lakes Elementary			X		X		X
Fountain Green Elementary	X	Х		X		X	
Hall's Cross Roads Elementary			X		X		X
Havre de Grace Elementary	X	Х		X		X	

BOILER INSPECTIONS

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Hickory Elementary	X	Х		X		Х	
Homestead/Wakefield – Primary			Х		Х		Х
Jarrettsville Elementary	X	Х		X		X	
Joppatowne Elementary	X	Х		X		X	
Magnolia Elementary	Х	Х		Х		X	
Meadowvale Elementary			X		X		Х
North Bend Elementary	X	Х		X		X	
North Harford Elementary	X	Х		X		X	
Red Pump Elementary			X		X		X
Ring Factory Elementary	X	Х		X		X	
Swan Creek			Х		Х		Х
Old Post Road – Primary			Х		Х		Х
Old Post Road – Intermediate			Х		Х		Х
William S. James Elementary			Х		Х		Х
Youth's Benefit Elementary	X		Х		X		X
Harford Academy	X	Х		X		X	
A. A. Roberty		Х		X		X	
Harford Glen		Х		Х		Х	
Facilities		Х		X		X	

BOILER REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High (2)	2004							
Bel Air High (6)	2009							
C. Milton Wright High (2)	1978							Х
Edgewood High (6)	2010							
Fallston High (5)	2015							
Harford Technical High (3)	00,01				Х			
Joppatowne High (2)	2022							
Patterson Mill Middle/High (2)	2006							
Aberdeen Middle (2)	2003					Х		
Bel Air Middle (5)	22,00							
Edgewood Middle (6)	2005							
Fallston Middle (2)	1992							
Havre de Grace Middle/High (4)	2021							
Magnolia Middle (4)	2015							
North Harford Middle (4)	2008							
Southampton Middle (4)	2010							
Abingdon Elementary (3)	2023	Х	Х					
Bakerfield Elementary (2)	1999							
Church Creek Elementary (5)	93,16					Х		
Churchville Elementary (4)	1998							
Deerfield Elementary (2)	2010							
Emmorton Elementary (3)	1993							
Forest Lakes Elementary (2)	1997							
Fountain Green Elementary (2)	1993					Х		
Hall's Cross Roads Elem. (2)	1993							
Havre de Grace Elementary (2)	1989							
Hickory Elementary (2)	1996				X (Burner)			
Homestead/Wakefield-Prim (2)	1988					Х		
Homestead Wakefield–Inter (2)	1984					Х		
Jarrettsville Elementary (3)	2012							

BOILER REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Joppatowne Elementary (2)	2009							
Magnolia Elementary (2)	1974							Х
Meadowvale Elementary (2)	1991							
North Bend Elementary (2)	2021							
North Harford Elementary (2)	2013							
Red Pump Elementary (3)	2011							
Ring Factory Elementary (2)	1990							
Swan Creek (2)	2023	Х	Х					
Old Post Road– Primary (2)	1974							
Old Post Road–Intermediate (2)	2012							
William S. James Elementary (4)	2014							
Youth's Benefit (4)	2017							
Harford Academy (2)	2009						X	
A. A. Roberty (1)	2006	Х				Х		
Harford Glen (4)	2018/2020							

FIRE ALARM REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High	2004							
Bel Air High	2009							
C. Milton Wright High	1996	X				Х		
Edgewood High	2010							
Fallston High	2009							
Harford Tech. High	2000				Х			
Joppatowne High	2020							
North Harford High	2005							
Patterson Mill High/Middle	2007							
Aberdeen Middle	2000			Х				
Bel Air Middle	2023		Х					
Edgewood Middle	2005							Х
Fallston Middle	1993			Х				
Havre de Grace Middle/High	2021							
Magnolia Middle	2014							
North Harford Middle	2003							
Southampton Middle	2003						X	
Abingdon Elementary	2018							
Bakerfield Elementary	2000							
Bel Air Elementary	2018							
Church Creek Elem.	1994			Х				
Churchville Elem.	2000							
Darlington Elementary	2016							
Deerfield Elementary	2010							
Dublin Elementary	2012							
Edgewood Elementary	2001							
Emmorton Elementary	2010							
Fountain Green Elem.	2023		Х					

FIRE ALARM REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Lakes Elementary	1997	X						
George D. Lisby @ Hillsdale	2021							
Hall's Cross Roads Elem.	1997	Х						
Havre de Grace Elem.	2022							
Hickory Elementary	1997							
Homestead/Wakefield – Inter.	2009				Х			
Homestead/Wakefield - Primary	1958				Х			
Jarrettsville Elementary	2010							
Joppatowne Elementary	2009							
Magnolia Elementary	2009					Х		
Meadowvale Elem.	2001							
Norrisville Elementary	2011							
North Bend Elementary	2020							
North Harford Elem.	2002							
Prospect Mill Elem.	2012							
Red Pump Elem.	2011	Х						
Ring Factory Elem.	2007							
Riverside Elementary	2018							
Roye-Williams Elem.	2021				Х			
Swan Creek	1965							
Old Post Rd. – Intermediate	2013						X	
Old Post Rd.– Primary	2014						X	
William S. James Elem.	2004							
Youth's Benefit Elementary	2017							
Harford Academy	2006				Х			
Harford Glen – Bldg. A	1997					Х		
Harford Glen – Bldg. B	1997					Х		
Harford Glen – Cafeteria	2014					Х		

FLOOR COVERING REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High	2003							
Bel Air High	2009							
C. Milton Wright High	2010							
Edgewood High	2010							
Fallston High	2001							
Harford Technical High	2000							
Joppatowne High	2003							
North Harford High	2006							
Patterson Mill Middle/High	2007							
Aberdeen Middle	2003							
Bel Air Middle (Media)	2012							
Edgewood Middle	2003							
Fallston Middle	2022							
Havre de Grace Middle/High	2021							
Magnolia Middle	2000							
North Harford Middle	1997							Х
Southampton Middle	2000							
Abingdon Elementary	2021							
Bakerfield Elementary	2000							
Bel Air Elementary	2008							
Church Creek Elementary	1994			Х				
Churchville Elementary	1998						Х	
Churchville Elementary – Gym	2021							
Darlington Elementary	2016							
Deerfield Elementary	2010							
Dublin Elementary	2011							
Edgewood Elementary	2002							
Emmorton Elementary	2021							

FLOOR COVERING REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Hill Elementary	2000							
Fountain Green Elementary	2023	Х	Х					
Forest Lakes Elementary	1997							
George D. Lisby Elem. (VCT)	1968							
Hall's Cross Roads Elementary	2017							
Havre de Grace Elementary	2012							
Hickory Elementary	1997					Х		
Homestead/Wakefield – Primary	1996							
Homestead/Wakefield - Inter.	2009							
Jarrettsville Elementary	2007							
Joppatowne Elementary	2009							
Magnolia Elementary	2021							
Meadowvale Elementary	2001							
Meadowvale Elementary – Gym	2020							
Norrisville Elementary	1997							
North Bend Elementary	2014							
North Bend Elementary - Gym	2020							
North Harford Elem. (VCT)	1997							
Prospect Mill Elementary	2006							
Red Pump Elementary	2011							
Ring Factory Elementary -Carpet	2010							
Ring Factory Elementary - Gym	2021							
Riverside Elementary (Media)	2010							
Roye-Williams Elementary	2021							
Swan Creek (Media)	2007							
Old Post Road – Primary	1997							
Old Post Road – Intermediate	1997							
William S. James Elementary	1997				Х			
Youth's Benefit Elementary	2017							
Harford Academy (VCT)	1998							

HVAC SYSTEM REPLACEMENTS (Roof Top Units and Chillers)

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High	2005							
Bel Air High	2009							
C. Milton Wright High	2001					Х		
Edgewood High	2010							
Fallston High	2016							
Harford Technical High	1998			X		Х		
Joppatowne High	2022							
North Harford High	2007			X				
Patterson Mill High/Middle	2020							
Aberdeen Middle	2014							
Bel Air Middle	2007							
Edgewood Middle	2018	X (1)					Х	
Fallston Middle	2019							
Havre de Grace Middle/High	2021							
Magnolia Middle	2014							
North Harford Middle	2015							
Southampton Middle	2010						X	
Abingdon Elementary	2001/1992	Х						
Bakerfield Elementary	1998	Х						
Church Creek Elementary	2013							
Churchville Elementary	2017							
Darlington Elementary	2015							
Dublin Elementary	2015							
Edgewood Elementary	2001							Х
Emmorton Elementary	2013							
Forest Hill Elementary	2022							

HVAC SYSTEM REPLACEMENTS (Roof Top Units and Chillers)

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Lakes Elementary	2014							
Fountain Green Elem.	2009			Х				
George D. Lisby Elem. @ Hillsdale	2021							
Hall's Cross Roads Elem.	2010				Х			
Harford Glen	2009					Х		
Havre de Grace Elem.	2013						Х	
Hickory Elementary	2019				X (Burner)			
Homestead/Wakefield – I	2007			X				
Jarrettsville Elementary	2012							
Magnolia Elementary	2003				X			
Meadowvale Elementary	2002	X (chiller)						X
Norrisville Elementary	2014							
North Bend Elementary	2020							
North Harford Elem.	2012							
North Harford High	2006					Х		
Patterson Mill Middle/High	2006							
Prospect Mill Elementary	2016							
Red Pump Elementary	2011							
Ring Factory Elementary	2015							
Riverside Elementary	2018							
Roye-Williams Elementary	2018							
Old Post Rd – Intermediate	2012							
Old Post Rd – Primary	1996							
William S. James Elementary	2014							
Youth's Benefit Elementary	2017							
Harford Academy	2009							
K Buildings (Total of 14)	68,70							

PAINTING

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High							
Bel Air High			X				
C. Milton Wright High							Х
Edgewood High							
Fallston High	Х						
Harford Technical High					Х		
Joppatowne High				Х			
North Harford High						Х	
Aberdeen Middle					X		
Bel Air Middle				Х			
Edgewood Middle							Х
Fallston Middle			X				
Havre de Grace Middle/High							
Magnolia Middle	X						
North Harford Middle							
Patterson Mill Middle/High							
Southampton Middle							
Abingdon Elementary	X						
Bakerfield Elementary							
Bel Air Elementary			Х				
Church Creek Elementary			Х				
Churchville Elementary							
Darlington Elementary	X						
Deerfield Elementary							Х
Dublin Elementary	X						
Edgewood Elementary							
Emmorton Elementary	X						

PAINTING

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Hill Elementary							
Forest Lakes Elementary						X	
Fountain Green Elementary					Х		
George D. Lisby @ Hillsdale							
Hall's Cross Roads Elementary						X	
Havre de Grace Elementary					Х		
Hickory Elementary				Х			
Homestead / Wakefield - Primary							
Homestead / Wakefield - Intermediate							
Jarrettsville Elementary							
Joppatowne Elementary			X				
Magnolia Elementary				Х			
Meadowvale Elementary							
Norrisville Elementary							Х
North Bend Elementary							
North Harford Elementary						X	
Prospect Mill Elementary							
Red Pump Elementary							
Ring Factory Elementary							
Riverside Elementary				Х			
Roye-Williams Elementary							
Swan Creek							
Old Post Road - Primary							Х
Old Post Road - Intermediate							Х
Wm. S. James Elementary				Х			
Youth's Benefit						X	
Harford Academy					Х		

PAVING – OVERLAY & MAINTENANCE

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High – South							
Bel Air High							
C. Milton Wright High							
Edgewood High							
Fallston High							
Harford Technical High				Х			
Joppatowne High							
North Harford High							
Aberdeen Middle						Х	
Bel Air Middle							
Edgewood Middle							
Fallston Middle							
Havre de Grace Middle/High							
Magnolia Middle							
North Harford Middle					Х		
Patterson Mill Middle/High							
Southampton Middle							
Abingdon Elementary							
Bakerfield Elementary							
Bel Air Elementary							
Church Creek Elementary							
Churchville Elementary							
Darlington Elementary							
Deerfield Elementary							
Dublin Elementary							
Edgewood Elementary							
Emmorton Elementary							

PAVING – OVERLAY & MAINTENANCE

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Hill Elementary							
Forest Lakes Elementary							
Fountain Green Elementary							
George D. Lisby Elem. At Hillsdale					Х		
Hall's Cross Roads Elementary							
Havre de Grace Elementary					Х		
Hickory Elementary							
Homestead/Wakefield – Primary	X						
Homestead/Wakefield – Intermediate	X						
Jarrettsville Elementary							
Joppatowne Elementary							
Magnolia Elementary							
Meadowvale Elementary	X						
Norrisville Elementary							
North Bend Elementary							
North Harford Elementary							
Prospect Mill Elementary							
Red Pump Elementary							
Ring Factory Elementary							
Riverside Elementary							
Roye-Williams Elementary							
Swan Creek							
Old Post Road – Primary			Х				
Old Post Road-Intermediate			X				
William S. James Elementary							
Youth's Benefit Elementary							
Harford Academy							
Hickory Annex							

ROOF REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High	2004							
Bel Air High	2009							
C. Milton Wright High	1995, 2003, 2006							
Edgewood High	2010							
Fallston High	2008, 2011							
Harford Technical High	1998, 1999							
Joppatowne High	2008, 2018							
North Harford High	1993, 1999, 2007				Х			
Aberdeen Middle	2020							
Bel Air Middle	2021							
Edgewood Middle	1997, 2005							
Fallston Middle	1993, 2006							
Havre de Grace Middle/High	2020							
Magnolia Middle	2002							
North Harford Middle	2008							
Patterson Mill Middle/High	2007							
Southampton Middle	2009							
Abingdon Elementary	1992, 2001							
Bakerfield Elementary	2022							
Bel Air Elementary	2007							
Church Creek Elementary	1994, 2001							
Churchville Elementary	2016							
Darlington Elementary	1993						X	
Deerfield Elementary	2010							
Dublin Elementary	2006							
Edgewood Elementary	2001							
Emmorton Elementary	1994							
Forest Hill Elementary	2000							

ROOF REPLACEMENTS

School	Date Installed	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Forest Lakes Elementary	1997							
Fountain Green Elementary	1993							
George D. Lisby @ Hillsdale	2014							
Hall's Cross Roads Elementary	1992					Х		
Havre de Grace Elementary	2023	Х	Х					
Hickory Elementary	2020							
Homestead /Wakefield - Primary	1990, 1991, 1996							
Homestead /Wakefield – Interm.	1985, 1997							
Jarrettsville Elementary	2003							
Joppatowne Elementary	1994, 1995, 2008							
Magnolia Elementary	2001							
Meadowvale Elementary	2001							
Norrisville Elementary	1996, 1997							
North Bend Elementary	2011							
North Harford Elementary	2018							
Prospect Mill Elementary	1993, 2011			X				
Red Pump Elementary	2010							
Ring Factory Elementary	2010							
Riverside Elementary	1993, 1995							Х
Roye Williams Elementary	1993, 1995, 2004							
Swan Creek	2022							
Old Post Road-Prim	1991, 1992, 1999							
Old Post Road-Int	1997							
William S. James Elementary	1995							
Youth's Benefit Elementary	2017							
Harford Academy	2005							

CLEANING OF ON-SITE WASTEWATER SYSTEMS

School	Planned FY 23	Actual FY 23	Planned FY 24	Planned FY 25	Planned FY 26	Planned FY 27	Planned FY 28
Aberdeen High – Grease Trap	X	X	X	X	X	X	X
Bel Air High – (2) Grease Traps	X	X	X	X	X	X	X
Edgewood High – (2) Grease Traps	X	X	X	Х	X	X	X
Fallston High – WWTP & Grease Trap	X	X	X	Х	X	X	X
Harford Technical High - WWTP & Grease Traps	X	X	X	Х	X	X	X
North Harford High - WWTP & Grease Trap	X	X	X	Х	X	X	X
Fallston Middle – Grease Trap	X	X	X	X	X	X	X
North Harford Middle – Grease Trap	X	X	X	Х	X	X	X
Patterson Mill Middle/High - Grease Trap	X	X	X	Х	X	X	X
Churchville Elementary – Septic Tank	X	X	X	X	X	X	X
Darlington Elementary - Septic Tank	X	X	X	Х	X	X	X
Deerfield Elementary – Grease Trap	X	X	X	Х	X	X	X
Dublin Elementary – Septic Tank	X	X	X	Х	X	X	X
Edgewood Elementary – Grease Trap	X	X	X	X	X	X	X
Forest Hill Elementary–Septic Tank & Grease Trap	X	X	X	Х	X	X	X
Jarrettsville Elementary – Septic Tank	X	X	X	Х	X	X	X
Norrisville Elementary-Septic Tank & Grease Trap	X	X	X	Х	X	X	X
North Bend Elementary – Septic Tank	X	Х	X	Х	X	X	X
North Harford Elementary – Septic Tank	X	X	X	X	X	X	X
Prospect Mill Elementary – Grease Trap	X	X	X	Х	X	X	X
Red Pump Elementary – Grease Trap	X	X	X	X	X	X	X
Youth's Benefit – WWTP & Grease Trap	X	X	X	X	X	X	X
Harford Glen – Grease Trap	X	X	X	X	X	X	X
Harford Glen House – Septic Tank	X	X	X	X	X	X	X
Harford Academy – Grease Trap	X	X	X	X	X	X	X
Havre de Grace Middle/High – Grease Trap (2)	X	X	X	X	X	X	X

UNDERGROUND STORAGE TANKS

SCHOOL	TEST TYPE	PRODUC T	GALLONS	TANK No.	INSTALL	LAST TEST	PASS/ FAIL	TEST	TYPE OF TANK	TEST PIPE S PLAC	MAN WAY	CERTON FILE
		SPILL BUC	KET INSPECTI	ONS APE TO			NUALLY	-		ED	WAI	<u> </u>
2023		STILL DOC.			DE CONDUC	JIED AN		ON ALL USIS				
FALLSTON MIDDLE	SUMP	#2 OIL	20000	1	1993	2017	Р	Rellek	ST-FRP	YES	YES	YES
HALL'S CROSS ROADS	SUMP	#2 OIL	10000	1	1987	2017	Р	Eldreth	Steel	YES	YES	YES
HOMESTEAD ELEM	SUMP	#2 OIL	10000	1	1966	2017	Р	Eldreth	Steel	YES	YES	YES
MAGNOLIA ELEM.	SUMP	#2 OIL	10000	1	1990	2017	Р	Eldreth	ST-FRP	YES	YES	YES
NORTH HARFORD ELEM.	SUMP	#2 OIL	10000	1	1984	2017	Р	Eldreth	Steel	YES	NO	YES
OLD POST ROAD	SUMP	#2 OIL	10000	1	1990	2017	Р	Eldreth	Steel	NO	YES	YES
HALL'S CROSS ROADS	CATHODIC	#2 OIL	10000	1	1987	2020	Р	Eldreth	Steel	YES	YES	YES
2024												
2025												
2026												
HALL'S CROSS ROADS	CATHODIC	#2 OIL	10000	1	1987	2020	Р	Eldreth	Steel	YES	YES	YES
2027						[[
2028												
FALLSTON MIDDLE	SUMP	#2 OIL	20000	1	1993	2017	Р	Rellek	ST-FRP	YES	YES	YES
HALL'S CROSS ROADS	SUMP	#2 OIL	10000	1	1987	2017	Р	Eldreth	Steel	YES	YES	YES
HOMESTEAD ELEM	SUMP	#2 OIL	10000	1	1966	2017	Р	Eldreth	Steel	YES	YES	YES
MAGNOLIA ELEM.	SUMP	#2 OIL	10000	1	1990	2017	Р	Eldreth	ST-FRP	YES	YES	YES
NORTH HARFORD ELEM.	SUMP	#2 OIL	10000	1	1984	2017	Р	Eldreth	Steel	YES	NO	YES
OLD POST ROAD	SUMP	#2 OIL	10000	1	1990	2017	Р	Eldreth	Steel	NO	YES	YES

COMPLIANCE OVERVIEW

Environmental compliance requirements impact every area of facilities. Regulations dictate close attention to issues such as asbestos containing materials, integrated pest management, underground storage tank systems, wastewater, lead containing materials, hazardous substances, storm water management, carbon monoxide, drinking water quality, indoor air, and radon. Compliance encompasses the conditions, safety and operation of all the buildings and occupants throughout the school system and the Department of Facilities personnel. When age and condition of buildings and equipment warrant additional monitoring, environmental personnel ensure acceptable performance is maintained by visual and quantitative analysis. Monitoring of water treatment is performed in accordance with the Lead and Copper Rule and Safe Drinking Water Act. Additionally, water system corrosion control is administered as prescribed by Maryland Department of Environment (MDE). Concerns about indoor air quality are addressed by bi-annual site assessments. Any additional mechanical work required is coordinated through the Department of Facilities. Monitoring for radon has been done in buildings throughout Harford County Public Schools. Follow-up actions including remediation and monitoring has been performed at sites where radon levels indicated. Additional monitoring will also be performed periodically to ensure continued acceptable radon levels in Harford County Public Schools buildings. Harford County Public Schools Facilities responds effectively to the constantly increasing number and complexity of Environmental Regulations.



INVESTIGATION OF AN INDOOR AIR QUALITY PROBLEM

Date Notified:		Who Reported:	
Position:			
	ion: Date:		Time:
People Present:			
I. Descript	ion of problem/symptoms	::	
II. Physical	assessment:		
III. Recomm	nendation:		
Signatures: I	nvestigator:	T	Date:
H	Principal:	I	Date:



HARFORD COUNTY PUBLIC SCHOOLS <u>PERIODIC SURVEILLANCE</u>

Periodic surveillance shall be performed formally by Harford County Public School personnel approximately every six-months. Please return form Ryan Barrie, Environmental Specialist, in the Facilities Department.

School Name

Today's Date

Date Noted

Performed by: Name and Position

Changes in Material:

Conditions:

HCPS Building Efficiency and Sustainability Survey

School:	Date:
Rooms Inspected:	Inspected by:

This survey is to be used to evaluate the efficiency of the HCPS site including the building and surrounding grounds. It is meant to be a useful tool in determining areas of progress in addressing efficiency and conservation issues, as well as identifying additional areas of concern. The areas inspected in this checklist are outlined in the administrative procedure's documents for HCPS.

Site Grounds	Υ	N	Comment
Outside security lights are functioning			
Outside security lights are off in day-light hours			
Outside parking and sidewalk lights are functioning			
Outside parking and sidewalk lights are off during day-light			
hours			
Recycling and waste receptacles are on-site and properly			
used			
Recycling receptacles are available for community and event			
use			
Appropriate use of shading and canopy use			
Evidence of Ground Erosion or run-off			
Building Envelope	Y	N	
Exterior doors and windows are functioning properly and draft	-		
free			
Weather stripping and caulk are appropriate and functioning			
Structure is sound with no serious penetrations or areas of			
draft			
Window coverings are used appropriately to maximize			
daylight use			
Window coverings are closed in evening hours to resist temp			
change			
Recycling and waste receptacles are on-site and properly			
used			
Pocouroo ucogo	Y	N	
Resource usage Sinks and water fountains appear to be functioning and leak	T		
free			
Toilets are functioning and do not appear to be running			
Paper towel and toilet paper dispensers are functioning			
Electrical	v		Comment
Light level is appropriate for needs		N	Comment
Light level is appropriately efficient i.e. fluorescent			
Lights are off in unoccupied areas of the building			
Fixtures are clean and functioning			
Accent lighting is minimal and appropriately used			
Half-lighting or task-lighting is used where appropriate			

	Y	Ν	Comment
Other			
Evidence of educational materials stressing conservation			
Evidence of exceptional environmental stewardship			
COMMENTS OR SUGGEST			
		-	

Please return to: Facilities Department

July 2019

HARFORD COUNTY PUBLIC SCHOOLS <u>Preventive Maintenance</u>

July 2023

Status/Remarks

Preventive maintenance is the proactive application of proper inspection and servicing techniques to plant and equipment systems associated with the Harford County Public Schools on a continuous selective cyclical and routine basis.

With the augmentation of a Computerized Maintenance Management System, this approach will afford the advantage of protecting capital investment by permitting the application of adjustments, replacement of wear and tear components and calibration of devices under controlled conditions, and either effecting quick, simple solutions or else generating pertinent work orders to the cognizant maintenance section for repair before the equipment fails or breaks down.

Representative Accomplishments

- 1. Essential Equipment Preventive Maintenance Field Audits of the entire school system, an open-ended and ongoing process, including the formulation & usage of projections for new school facilities, those schools undergoing major renovation/reconstruction & the prompt replacement of projection data with actual data complete with impact analysis upon the completion of the new/major renovation/reconstruction activity.
- 2. The formulation & periodic updating of equipment task listing criterion for over 30 major and sub-equipment categories serving as a basis upon which to plan, organize, analyze & process a high volume of data.
- 3. The development, utilization, and continuous revision of an analytical technique of a Preventive Maintenance Subtotals Equipment Task Network, to include the establishment of per unit annual coverage capability factors, as the essential vehicle to array and manage the equipment regarding frequency and specifics of PM service intervals within the five major HCPS geographical school zones delineated by PM. This approach facilitates obtaining maximum economy and efficiency.
- 4. The identification of selective essential rates of coverage of the school system, given the available PM staffing levels, system size & criticality of service to specify realistic initial/modified program implementation levels as well as to provide a sound foundation and benchmarking for future expansion.
- 5. The application of functional, durable identification labeling to the thousands of items of equipment audited to include ongoing updating, as required (replacements, modifications, etc.). This includes innovative classroom ceiling grid labeling for those equipment installations aloft above ceiling level.

CONTINUED

- 6. Development, utilization, and continuous updating of logistical system encompassing the PM Team HVAC air filter/frame general specifications, comprehensive expendables inventory instruments for drive belts, air filter media and air filter frames and procurement contract rider for the last 3(+) consecutive years with the Baltimore and/or Howard County Public School Systems and pricing request/order procedures. Some samples are included.
- 7. The implementation of an Electric Service Entrance Equipment Maintenance/PM Program to provide much needed attention to the Main Electrical Services at the schools on a regular basis to include substantial follow-up on deficiencies encountered. Proactive role in the implementation of a MABE funded Thermographic Imaging/Infrared Testing thrust for electrical distribution equipment which further assists the Maintenance/PM action by helping uncover incipient deficiencies before they cause unscheduled electrical outages, equipment damage or possibly fire.

A sample Preventive Maintenance checklist for annual indirect gas fired make-up air unit inspections is attached. The generation/modification of PM checklists is an evolving, ongoing process.

HARFORD COUNTY PUBLIC SCHOOLS

Preventive Maintenance Program JULY 2022 Preventive Maintenance Inspection Frequency

Item	Description	А	Bi-A	Semi- A	Tri-A	<u>Quar</u>	Semi-Q	Mo.	Bi- Mo.	FI*	*** a .
1.	Air Handling Unit (AHU)	Х		X**		Х				X	
2.	Circulator Pump (CP)	c. X									
3.	Circulator Pump (CP)>/=50HP				c. X						Х
4.	Exhaust Fan (EF)	Х									
5.	Vane Axial Exhaust Fan (VAEF)	a · x	a · x					b. X			
6.	Heat Pump (HP) – General			X						X	
7.	Heat Pump (HP) – Relocatable						X				
8.	Water to Air Geothermal Heat Pump	Х		X				X			
9.	Roof Top Unit (RTU)	Х				Х				Х	
10.	Return Air Fan (RAF)	Х						Х			
11.	Supply Air Fan (SAF)	Х		Х				Χ		Х	
12.	Air Cleaner/Purifier			X**				Χ			
13.	Unit Heater Ventilator Electrical(UHV-E)			X		X				X	
14.	Energy Recovery Ventilator	Х				Х		X			
15.	Energy Recovery Unit (ERU)	Х		X		Х		X			
16.	Electric Unit Heater (EUH)			X							
	Cabinet Unit Heater Electrical (CUH)	Х				Х					
18.	A/C Only Unit (Electrical)			X		Х				X	
19.	Fan Coil Unit Electrical (FCU)	Х				Х					
20.	Fan Powered Mixing Box Electrical (FPMB)			X		Х					

Preventive Maintenance Inspection Frequency

Item	Description	Α	Bi-A	Semi- A	Tri-A	Quar	Semi-Q	Mo.	Bi- Mo.	FI. *	*** a.
21.	UHV – Gas			X							
22.	Unit Heater – Gas (GUH)			X							
23.	Indirect Gas Fired Make-up Air Unit	Sample X		X		Х					
24.	UHV – Water/Steam			Х		Х				Х	
25.	Cabinet Unit Heater – Water Steam (CUH)	Х								X	
26.	Fan Coil Unit – Water/Steam (FCU)	Х				Х				X	
27.	A/C only Unit (Water/Steam)			X		Х					
28.	Horizontal A/C Unit (H A/C)			X					Х		
29.	Fan Powered Mixing Box – Water/Steam (FPMB)			X		X				X	
30.	Unit Heater (UH) Water/Steam			X							
31.	Wall Fan (WF)	X									
32.	Water Cooler (WC)			Х							
33.	Window A/C (WAC)			Х							

Sample Preventive Maintenance Checklist attached.

* Air filter change and inspection service only – custom, variable frequency.

**Selectively applied, custom service.

*** Overhaul/General Take-Down Inspection. Frequency TBD, hourly basis.

• At selective essential rates of coverage. PM service frequencies are custom tailored to each facility.

Not all PM service frequencies apply to all schools.

- a. By others Outside the scope of PM
- b. Or at every 720 hrs. of operation using retrofitted elapsed run time hour meter.
- c. Or, for 1760 rated RPM machine motors, at each 7400 hours of accumulated run time (4250 hrs., machine pumps) NEMA 280-360 fr; 3500 hours NEMA 360-5800; with prescribed periodic purging and replacement of lubricant or per manufacturer's instructions using retro-fitted elapsed run time hours metering.

HARFORD COUNTY PUBLIC SCHOOLS <u>TASK LISTING FOR PREVENTIVE MAINTENANCE</u> <u>CLASSIFICATIONS FORM</u> <u>GAS FIRED MAKE-UP AIR UNIT (560IGFMUAU) ANNUAL INSPECTION</u> (FALL)

SAFETY PRECAUTIONS

- Lock-out the gas and the electrical power to the unit before performing any maintenance or service operations on this equipment.
- Wait for all rotating components to come to a complete stop prior to entering the equipment.
- Clear snow away from roof mounted units. Keep the snow clear of the intake, access doors and any vent piping.
- Do not allow water or solvents to enter the motor or bearings. Motors and bearings should never be sprayed with steam, water or solvents.
- Exercise caution when venting the coils. High pressure and/or high temperature fluids can cause serious injury.

GENERAL INSPECTION PROCEDURES

1. *Fan Wheel*: Keep the fan wheel clean for proper operation. Accumulated dirt and oil will cause imbalance.

2. Cooling Coils

- a. Inspect the coil for signs of corrosion and/or leaks. Repair any leaks as required.
- b. Inspect coil surface for foreign material. If the coil surface needs to be cleaned, then direct the cleaning agent into the leaving airside so that foreign material will be washed out of the coil rather than being pushed farther into it.
- c. Inspect and clean the drain pan to prevent the growth of algae and other organisms. Add condensate drain capsules as needed.

3. Chilled Water Coils

- a. Test the circulating fluid for sediment, corrosive products, and biological contaminants and take the necessary corrective measures.
- b. Maintain adequate fluid velocities and proper filtering of the fluid.
- c. If automatic air vents are not utilized, periodic venting of the coil is recommended to remove accumulated air.

4. Evaporative Coolers

- a. Shut off the water and drain all the lines when the outside temperature drops below 45°F.
- b. Remove drain plugs for the winter.
- c. Clean all interior parts of any mineral deposits or foreign materials that may have built-up during the cooling season.
- d. Replace any worn or non-functioning parts.

5. Gas Line

- a. Remove the drip leg and clean any liquid or debris that may have accumulated.
- b. After cleaning the drip leg, reattach it.
- 6. *Vent Piping*: Remove any debris from the drip legs in the combustion air and exhaust pipes.
- 7. *Burners and Orifices*: Before each heating season examine the burners and gas orifices to make sure they are clear of any debris such as spider webs, etc. Then clean the burners as follows:
 - a. Turn off both electrical and gas supplies to the unit.
 - b. Disconnect union between manifold and gas valve.
 - c. Remove manifold and burner assembly.
 - d. Inspect and clean orifices and burners as necessary. Avoid using any hard or sharp instruments which could cause damage to the orifices or burners.
 - 1. Remove any soot deposits from the burner with a wire brush.
 - 2. Clean the ports using an aerosol degreaser or compressed air.
 - 3. Wipe the inside of the burner clean. Cleaning the burner with a degreaser will retard the future build-up of dirt.
 - 4. Before reinstalling the burner assembly, look down the heat exchanger tubes to make sure they are clear of any debris.
 - 5. Reinstall manifold and burner assembly, reconnect wire leads and gas supply piping.
 - 6. Turn on the electrical power and gas supply.
 - 7. Follow the start-up procedure to light the burners and verify proper operation.

8. Heat Exchanger

- a. Check the heat exchanger annually for cracks.
- b. If a crack is detected, the heat exchanger should be replaced before the unit is put back into operation.
- c. Airflow across the heat exchanger should be checked to make sure the blower is operating properly.
- 9. *Flue Collector Box*: The flue passageway and flue collector box should be inspected prior to each heating season and cleared of any debris.
- 10. *Electrical Wiring*: The electrical wiring should be checked annually for loose connections or deterioration.

Tools needed to complete the Preventive Maintenance:

Hand Tools	Wire Brush	Fiberglass step ladder, as required.
VOM	Respirator	Full face safety goggles
H2O Test Kit	Pipe Cleaner	Portable Air Compressor
Vacuum Cleaner		

Materials List: Coil Cleaner, Aerosol Degreaser, Condensate Drain Tabs

Special Notes:

- 1. Coordination with Energy Manager required in advance if building is otherwise shut-down by EMS e.g., schools closed.
- 2. Disconnect and secure to the OFF position, all sources of power to the equipment prior to servicing, per standard Lock-Out Tag-Out Procedures. In the case of the exception in which the equipment must be temporarily energized for troubleshooting, observation, diagnostic measurements or related servicing actions, **exercise extreme caution**.
- 3. Check all work and restore power upon completion of the Preventive Maintenance work activity.
- 4. For further technical details, refer to the instruction manual.
- 5. Safety glasses and gloves required as needed.

ITEM NO.	QTY (ea., or as noted)	SIZE ("or as indicated)	POLY ROLL (Spec 1)	POLY PAD (Spec 2)	PAD FRAME (Spec 3)	POLY BAG HDR (Spec 4)	RIGID PAD (Spec 5)	POLY T/A (Spec 6)	OTHER	OTHER	TAG BOXES	UNIT PRICE \$	SUB TOTAL \$
							<u>SUBT</u>	OTAL:			<u>f PGS 2/3</u>		
									Not Use				
OF		ER/FRAME PRICE RE	equest [ALL/FAX/E-I		PLEASE CA FOR C	ONFIRMAT	ION				
										TRACKING	P.O. #: Date:		_
											PM Zone:	:	

ITEM NO.	QTY (ea., or as noted)	SIZE ("or as indicated)	FOAM ROLL (Spec 7)	PLEAT- STANDARD CAPACITY (Spec 8)	RIGID BOX NH (Spec 9)	BAG EXTENDED SURFACE (Spec 10)	PLEAT MERV 8 (Spec 11)	FOAM PLASTIC FRAME (Spec 12)	OTHER	OTHER	TAG BOXES	UNIT PRICE \$	SUB TOTAL \$
											SUBTOTAL:		
								GR	AND TOT	AL [If P3 I	s Not Used]:		
air fil Ordef	TER/FR/	AME ICE REQUEST	r 🗆	WILL		E-MAIL FOR CONFI		ALL/FAX/E-I	MAIL 🗆	TRA	ACKING P.O. #:		
											Date: PM Zone:		

ITEM NO.	QTY (ea., or as noted)	SIZE ("or as indicated)	RIGID BOX SH (Spec 13)	POLY BAG WIRE (Spec 14)	PLEAT- MERV 11 ® FARR HR (Spec 15)	EXTEN SUR SEP; 65% FLA- PRECI (Spec 16)	BAG DUSTLOC⊛ CUBE MTL HDR (Spec 17)	BAG DUSTLOC₀ CUBE WIRE HDR (Spec 18)	OTHER	OTHER	TAG BOXES	UNIT PRICE \$	SUB TOTAL \$
											SUBTOTAL:		
										GRA	AND TOTAL:		
					/	.							
ORDE		TER/FRAME	r 🗆	WILL	CALL/FAX/E I	E-MAIL LU FOR CONFI		ALL/FAX/E-ľ		TRA	ACKING P.O. #:		
											Date:		
											PM Zone:		

ITEM NO.	QTY (ea., or as noted)	SIZE ("or as indicated)	PLEAT MERV 6 FARR® (Spec 19)	PLEAT PNL MERV 7 AIRGUARD (Spec 20)	PLEAT RIGID BOX 65% NH (Spec 21)	PLEAT RIGID BOX 65% SH (Spec 22)	Au MET MESH Preci-aire (Spec 23)	POLY RING (Spec 24)	OTHER	OTHER	TAG BOXES	UNIT PRICE \$	SUB TOTAL \$
											SUBTOTAL:		
											AND TOTAL:		
	AIR FILTER/FRAME WILL CALL/FAX/E-MAIL PLEASE CALL/FAX/E-MAILORDER												
	PRICE REQUEST FOR CONFIRMATION TRACKING P.O. #: Date: Date: PM Zone: PM Zone:												

ITEM NO.	QTY (ea., or as noted)	SIZE ("or as indicated)	RESERVED	RESERVED	RESERVED	RESERVED	RESERVED	OTHER	OTHER	OTHER	TAG BOXES	UNIT PRICE \$	SUB TOTAL \$
<u> </u>	1		1	I	I	I					SUBTOTAL:		
										GRA	AND TOTAL:		
00000		TER/FRAME	- 🗆	WILI	_ CALL/FAX		PLEASE C	CALL/FAX/E	-MAIL 🗌				
ORDE	KLI PR				I	FOR CONFI	KMATION			IRAC	KING P.O. #: Date: Zone:		
										PM	Zone:		
	WORK ORDER PROGRAM												

HARFORD COUNTY PUBLIC SCH	OOLS	My Account(46463388) Sercolluce apps -	Application Links - V Logout
Home Calendar Ne	w Work Order Reports	Services Account Setup	_
Search for GO	Advanced Search		Services He
Actions: Add List Grap	h Report		
	WORK ORDERS BY STATUS		WORK CENTER
Need Training?	Last 10 Work Requests	n	CALENDAR
Do you need a refresher course to learn some new helpful hints? Then click here	Period All Request Totals	V Work In Process	4/12/2022 WORK (Tuesday)
to view our FREE training services.	93 New Request		OPEN PM WORK 130
	0 UNASSIGNED 37 In Approval Process 2 PMs		OTHER OPEN 330 WORK
OTICE Your account with Brightly s 45 days or more past due. To avoid interruption of service,	 4345 Work In Progress 1296 PMs 323406 Complete 		TOTAL OPEN 46 WORK 46
please contact Brightly Account Receivable by phone (1-877- 39-3833) or email us to irrange payment or if you feel you received this message in irror.	43897 PMs ✓ 5045 Closed Work Orders 1606 PMs ✓ 2996 Declined 361 PMs	 Forwarded Deferred Waiting Funding Pending 	Information Analysis
hank you for your partnership. As always - Brightly is beside You!	 ✓ 30 Parts on Order ✓ 8271 Duplicate Request 	© Open Extended © Waiting More Information	Areas Budget Buildings Classifications
Quick Launch	267 PMs ✓ 6002 Void 1747 PMs	Cn Hold	Crafts Employees
lew Request rrint WO Batch Account Settings	 33 On Hold 1 Waiting More Information 	tion	Equipment Equipment Usage Groups
1ore Services 1y SchoolBuilding	 19 Open Extended 8 Pending 		Locations Manufacturers Outstanding Work
LOGIN HERE	8 PMs 46 Waiting Funding		Priority Projects
ello Jan Abbott! f you are not Jan Abbott please	 2 Deferred 2 PMs 		Purpose Saved Actions Status
lick here.	✓ 38 Forwarded Refresh Pie		Suppliers Types
Related Articles		each selected period. This reflects the actual date of the	Transactions Work Load/Assignment Work Order
Case Study #1: "Customer Service on Steroids" - Charlie McGinnis	Did you know?	to be 158°F.	Custom Category
	 		

WORK ORDER FISCAL YEAR

Fiscal Year	#Created	# Completed	% Complete	Average Work Days to Complete	% Routine (No PM) Complete <= 7 Work Days	% PM Complete <= 22 Work Days
2022/2023	19421	12384	64%	21	53%	71%
2021/2022	21782	19780	91%	29	52%	68%
2020/2021	19238	17818	93%	22	56%	73%
2019/2020	18286	17243	94%	30	50%	59%
2018/2019	21553	20827	97%	27	58%	75%
2017/2018	21763	21074	97%	26	59%	70%
2016/2017	20717	20153	97%	28	59%	76%
2015/2016	20432	19847	97%	30	55%	83%
2014/2015	18540	17904	97%	34	53%	82%
2013/2014	17723	17039	96%	42	49%	82%

WORK ORDER REPORT BY LOCATION (CORRECTIVE)

Location	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp	% Routine (No PM) Comp <= 7 Work Days	% PM Comp <= 22 Work Days
A. A. Roberty Building	2022/2023	184	137	74%	17	62%	43%
Aberdeen High	2022/2023	392	237	60%	22	48%	79%
Aberdeen Middle	2022/2023	255	154	60%	30	44%	74%
Abingdon Elementary	2022/2023	249	137	55%	18	53%	78%
Bakerfield Elementary	2022/2023	259	178	69%	19	47%	86%
Bel Air Elementary	2022/2023	170	117	69%	14	52%	79%
Bel Air High	2022/2023	608	453	75%	16	56%	77%
Bel Air Middle	2022/2023	346	231	67%	13	60%	80%
C Milton Wright High	2022/2023	398	263	66%	12	71%	81%
CEO- Swan Creek	2022/2023	102	56	55%	24	46%	82%
Church Creek Elementary	2022/2023	86	59	69%	26	45%	78%
Churchville Elementary	2022/2023	300	206	69%	23	46%	73%
Darlington Elementary	2022/2023	130	77	59%	25	47%	79%
Deerfield Elementary	2022/2023	305	214	70%	18	56%	77%
Dublin Elementary	2022/2023	209	130	62%	19	45%	76%
Edgewood Bus Lot	2022/2023	4	3	75%	6	67%	-
Edgewood Elementary	2022/2023	161	120	75%	19	40%	86%
Edgewood High	2022/2023	631	409	65%	18	56%	69%
Edgewood Middle	2022/2023	277	158	57%	19	50%	66%
Emmorton Elementary	2022/2023	121	75	62%	25	50%	62%
Fallston High	2022/2023	501	325	65%	19	52%	68%
Fallston Middle	2022/2023	264	171	65%	23	55%	61%
Forest Hill Annex	2022/2023	22	8	36%	25	71%	73%
Forest Hill Elementary	2022/2023	237	131	55%	24	38%	64%
Forest Lakes Elementary	2022/2023	204	123	60%	25	41%	79%
Fountain Green Elementary	2022/2023	178	110	62%	22	51%	67%
George Lisby Elem at Hillsdale	2022/2023	219	149	68%	19	49%	80%
Halls Cross Roads Elementary	2022/2023	263	164	62%	28	43%	78%
Harford Academy	2022/2023	242	151	62%	27	71%	67%

WORK ORDER REPORT BY LOCATION (CORRECTIVE) CONTINUED

Location	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp	% Routine (No PM) Comp <= 7 Work Days	% PM Comp <= 22 Work Days
Harford Glen	2022/2023	115	74	64%	22	50%	75%
Harford Technical High	2022/2023	525	347	66%	19	46%	79%
Havre de Grace Elementary	2022/2023	225	143	64%	24	43%	85%
Havre De Grace Middle/High	2022/2023	232	120	52%	15	63%	86%
Hickory Annex	2022/2023	310	223	72%	44	84%	18%
Hickory Bus Lot	2022/2023	2	1	50%	9	0%	-
Hickory Elementary	2022/2023	134	74	55%	17	56%	83%
Homestead Wakefield - Homestead	2022/2023	265	128	48%	12	67%	77%
Jarrettsville Elementary	2022/2023	166	91	55%	25	51%	63%
Joppatowne Elementary	2022/2023	155	103	66%	21	55%	66%
Joppatowne High	2022/2023	352	207	59%	17	54%	79%
Magnolia Elementary	2022/2023	266	187	70%	20	50%	70%
Magnolia Middle	2022/2023	413	273	66%	18	52%	76%
Meadowvale Elementary	2022/2023	203	145	71%	23	56%	73%
Norrisville Elementary	2022/2023	222	141	64%	19	44%	72%
North Bend Elementary	2022/2023	203	124	61%	22	45%	60%
North Harford Elementary	2022/2023	196	119	61%	22	46%	71%
North Harford High	2022/2023	556	322	58%	20	54%	76%
North Harford Middle	2022/2023	482	291	60%	24	50%	71%
Old Post Intermediate	2022/2023	104	73	70%	18	49%	61%
Old Post Primary	2022/2023	191	118	62%	21	53%	60%
Patterson Mill Middle/High School	2022/2023	524	344	66%	12	66%	81%
Prospect Mill Elementary	2022/2023	168	111	66%	19	64%	64%
Red Pump Elementary	2022/2023	301	210	70%	19	50%	77%
Ring Factory Elementary	2022/2023	125	77	62%	16	62%	74%
Riverside Elementary	2022/2023	113	76	67%	20	50%	86%
Roye Williams Elementary	2022/2023	325	217	67%	20	43%	87%
Southampton Middle	2022/2023	355	255	72%	18	49%	64%
William S James Elementary	2022/2023	208	106	51%	19	55%	69%
Youth's Benefit Elementary	2022/2023	177	103	58%	45	50%	56%

WORK ORDER BY CRAFT FISCAL YEAR (CORRECTIVE)

Craft	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp	% Routine (No PM) Comp <= 7 Work Days	% PM Comp <= 22 Work Days
Alarm	2022/2023	58	15	26%	14	33%	-
Appliance Repair	2022/2023	45	31	69%	15	45%	-
Asbestos	2022/2023	10	8	80%	23	13%	-
Bleachers	2022/2023	19	11	58%	8	90%	0%
Boiler	2022/2023	191	71	38%	16	82%	100%
Building Automation	2022/2023	581	534	92%	11	65%	100%
Carpentry	2022/2023	1203	8020	63%	19	55%	93%
Ceiling Tile	2022/2023	60	36	60%	9	69%	-
Communications	2022/2023	16	6	38%	2	100%	-
Concrete	2022/2023	38	13	34%	29	31%	-
Custodial	2022/2023	301	146	52%	24	39%	75%
Custodial Equipment Repair	2022/2023	359	229	64%	24	43%	-
Doors and Hardware	2022/2023	1000	664	64%	15	61%	6%
Electrical	2022/2023	1154	778	68%	7	79%	100%
Elevators	2022/2023	62	41	66%	5	88%	-
Energy Management System	2022/2023	251	200	80%	15	48%	-
Environmental Services	2022/2023	66	44	65%	47	30%	0%
Equipment	2022/2023	7	3	43%	4	100%	-
Exhaust Fans	2022/2023	35	21	60%	17	48%	-
Fence Repair	2022/2023	21	11	52%	34	64%	-
Fire Alarm System	2022/2023	201	175	87%	14	54%	-
Fire Extinguishers	2022/2023	46	15	33%	10	60%	-
Flooring	2022/2023	83	38	46%	17	26%	-
Food Services	2022/2023	528	328	62%	22	36%	-
Fuel Delivery	2022/2023	82	70	85%	3	96%	-
Furniture Repair	2022/2023	135	86	64%	11	63%	-
Glass\Window Repairs	2022/2023	149	108	72%	16	40%	-
Graffiti	2022/2023	12	3	25%	1	100%	-
Grass Cutting	2022/2023	0	0	58%	16	46%	88%

WORK ODER BY CRAFT FISCAL YEAR (CORRECTIVE) CONTINUED

Craft	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp	% Routine (No PM) Comp <= 7 Work Days	% PM Comp <= 22 Work Days
Grounds	2022/2023	702	412	60%	34	57%	58%
Grounds Equipment Repair	2022/2023	234	175	75%	21	83%	86%
Gym Equipment	2022/2023	19	12	16%	14	42%	-
Heating/Ventilation /Air Cond.	2022/2023	1805	1535	68%	33	30%	46%
Indoor Air Quality	2022/2023	8	6	75%	28	0%	-
Key and Lock	2022/2023	637	412	65%	12	59%	-
Lighting (Indoor)	2022/2023	306	235	77%	9	74%	-
Lighting (Outdoor)	2022/2023	110	78	71%	12	56%	-
Locker Repair	2022/2023	196	166	85%	14	40%	-
Miscellaneous	2022/2023	114	60	53%	20	42%	-
Missing Craft	2022/2023	65	27	42%	45	29%	54%
Moving	2022/2023	389	311	80%	16	48%	-
Operational Services	2022/2023	55	54	98%	1	100%	-
Painting	2022/2023	329	87	24%	10	56%	100%
Parking Lot Striping	2022/2023	15	1	7%	3	100%	-
Paving	2022/2023	28	17	61%	32	41%	-
Pest Control	2022/2023	256	254	95%	10	75%	100%
Playground	2022/2023	80	46	66%	31	73%	27%
Plumbing	2022/2023	2187	52	59%	24	52%	79%
Pool	2022/2023	27	6	22%	13	33%	-
Refrigeration	2022/2023	34	30	88%	22	37%	-
Roof	2022/2023	367	132	39%	38	21%	16%
Scissor Lifts	2022/2023	33	17	22%	48	33%	-
Sewage/Water Treatment Plant	2022/2023	33	5	11%	59	0%	0%
Shades/Blinds	2022/2023	48	37	77%	23	22%	-
Snow Removal	2022/2023	2	2	100%	1	100%	-
Sprinkler System	2022/2023	24	7	29%	41	14%	-
Structure	2022/2023	33	20	79%	24	-	72%
Water Quality	2022/2023	151	61	40%	70	100%	0%
Weed Control	2022/2023	24	22	92%	5	73%	-

WORK ORDER SUMMARY BY CRAFT

Craft	Fiscal Year	# Created	In Progress	# Completed	On Hold	Pending	No Funding	Declined	Duplicate
Alarm	2022/2023	58	17	15	0	0	24	2	0
Appliance Repair	2022/2023	45	8	31	0	0	0	6	0
Asbestos	2022/2023	10	2	8	0	0	0	0	0
Bleachers	2022/2023	19	7	11	0	0	0	1	0
Boiler	2022/2023	197	117	75	0	0	0	1	4
Building Automation	2022/2023	582	42	535	2	0	0	3	0
Carpentry	2022/2023	1318	442	831	0	0	0	38	7
Ceiling Tile	2022/2023	60	24	36	0	0	0	0	0
Communications	2022/2023	16	1	6	0	0	0	9	0
Concrete	2022/2023	38	22	13	0	0	0	1	2
Custodial	2022/2023	412	181	216	0	0	0	15	0
Custodial Equipment Repair	2022/2023	359	116	229	0	0	0	4	10
Doors and Hardware	2022/2023	1055	356	678	0	0	0	11	10
Electrical	2022/2023	1157	335	781	0	0	0	37	4
Elevators	2022/2023	62	21	41	0	0	0	0	0
Energy Management System	2022/2023	251	49	200	0	0	0	1	1
Environmental Services	2022/2023	68	23	44	0	0	0	1	0
Exhaust Fans	2022/2023	7	2	3	0	0	0	2	0
Fence Repair	2022/2023	35	12	21	0	0	0	1	1
Fire Alarm System	2022/2023	21	9	11	0	0	0	1	0
Fire Extinguishers	2022/2023	201	23	175	2	0	1	0	0
Flooring	2022/2023	46	20	15	0	0	10	0	1
Food Services	2022/2023	83	43	38	0	0	0	2	0
Fuel Delivery	2022/2023	528	151	328	16	16	0	4	13
Furniture Repair	2022/2023	82	12	70	0	0	0	0	0
Glass\Window Repairs	2022/2023	135	44	86	0	0	0	3	2
Grass Cutting	2022/2023	149	37	108	0	0	0	1	3
Grounds	2022/2023	1809	323	1049	0	0	0	435	2

WORK ORDER SUMMARY BY CRAFT CONTINUED

Craft	Fiscal Year	# Created	In Progress	# Completed	On Hold	Pending	No Funding	Declined	Duplicate
Heating/Ventilation /Air Cond.	2022/2023	2962	868	2025	6	1	0	22	40
Indoor Air Quality	2022/2023	8	2	6	0	0	0	0	0
Key and Lock	2022/2023	637	186	412	0	0	0	23	16
Lighting (Indoor)	2022/2023	306	62	235	0	0	0	3	6
Lighting (Outdoor)	2022/2023	110	31	78	0	0	0	0	1
Locker Repair	2022/2023	196	28	166	0	0	0	2	0
Miscellaneous	2022/2023	114	9	60	4	0	2	35	4
Missing Craft	2022/2023	65	37	27	0	0	0	0	1
Moving	2022/2023	389	47	311	11	0	2	15	3
Operational Services	2022/2023	55	0	54	0	0	0	0	1
Painting	2022/2023	356	260	87	0	0	0	6	3
Parking Lot Striping	2022/2023	15	13	1	0	0	0	1	0
Paving	2022/2023	28	10	17	0	0	1	0	0
Pest Control	2022/2023	543	21	514	0	0	0	1	7
Playground	2022/2023	140	46	92	0	0	1	0	1
Plumbing	2022/2023	2288	925	1346	1	0	0	6	10
Pool	2022/2023	27	21	6	0	0	0	0	0
Refrigeration	2022/2023	34	2	30	0	0	0	1	1
Remodeling	2022/2023	2	0	2	0	0	0	0	0
Roof	2022/2023	462	279	178	0	0	0	2	3
Scissor Lifts	2022/2023	94	68	21	0	0	0	5	0
Sewage/Water Treatment Plant	2022/2023	47	42	5	0	0	0	0	0
Shades/Blinds	2022/2023	48	9	37	0	0	0	2	0
Snow Removal	2022/2023	2	0	2	0	0	0	0	0
Sprinkler System	2022/2023	24	17	7	0	0	0	0	0
Structure	2022/2023	76	16	60	0	0	0	0	0
Waste Management	2022/2023	3	0	1	1	0	0	1	0
Water Quality	2022/2023	154	93	61	0	0	0	0	0
Weed Control	2022/2023	24	2	22	0	0	0	0	0

WORK ORDER BY LOCATION PM

Location	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp
A. A. Roberty Building	2022/2023	33	13	39%	17
Aberdeen High	2022/2023	126	90	71%	22
Aberdeen Middle	2022/2023	67	49	73%	30
Abingdon Elementary	2022/2023	81	46	57%	18
Bakerfield Elementary	2022/2023	83	48	58%	19
Bel Air Elementary	2022/2023	56	38	68%	14
Bel Air High	2022/2023	120	73	61%	16
Bel Air Middle	2022/2023	75	46	61%	13
C Milton Wright High	2022/2023	82	51	62%	12
CEO- Swan Creek	2022/2023	60	43	72%	24
Church Creek Elementary	2022/2023	80	51	64%	26
Churchville Elementary	2022/2023	94	60	64%	23
Darlington Elementary	2022/2023	56	34	61%	25
Deerfield Elementary	2022/2023	78	48	62%	18
Dublin Elementary	2022/2023	58	39	67%	19
Edgewood Bus Lot	2022/2023	1	0	0%	6
Edgewood Elementary	2022/2023	61	42	69%	19
Edgewood High	2022/2023	103	64	62%	18
Edgewood Middle	2022/2023	80	50	63%	19
Emmorton Elementary	2022/2023	73	44	60%	25
Fallston High	2022/2023	76	48	63%	19
Fallston Middle	2022/2023	76	51	67%	23
Forest Hill Annex	2022/2023	37	28	76%	25
Forest Hill Elementary	2022/2023	72	41	57%	24
Forest Lakes Elementary	2022/2023	80	47	59%	25
Fountain Green Elementary	2022/2023	82	54	66%	22
George Lisby Elem at Hillsdale	2022/2023	64	45	70%	19
Halls Cross Roads Elementary	2022/2023	79	53	67%	28
Harford Academy	2022/2023	78	49	63%	27

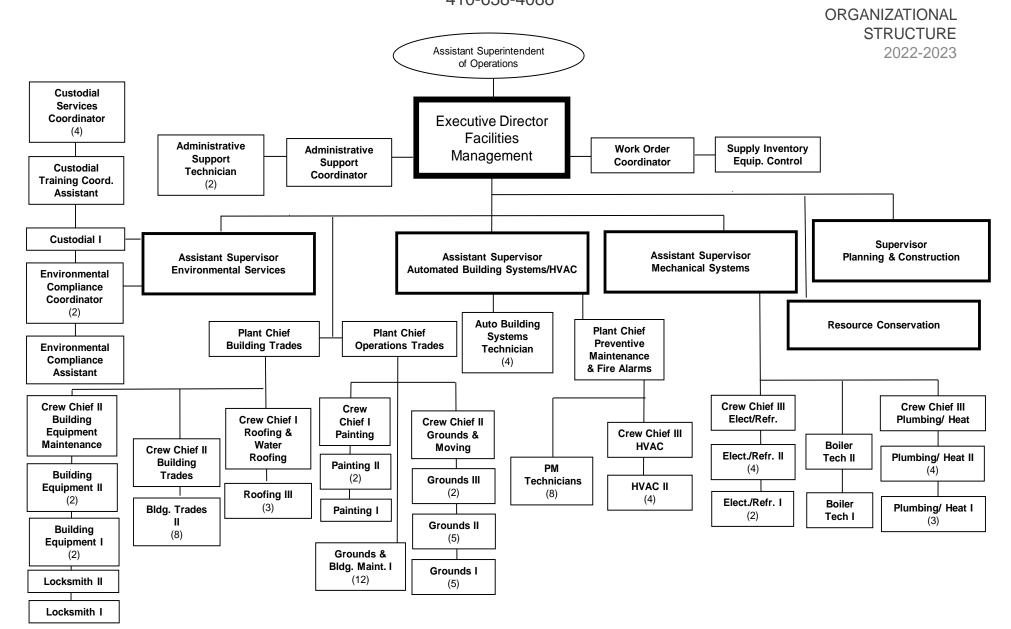
WORK ORDER BY LOCATION PM

Location	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp
Harford Glen	2022/2023	32	16	50%	22
Harford Technical High	2022/2023	91	58	64%	19
Havre de Grace Elementary	2022/2023	90	55	61%	24
Havre De Grace Middle/High	2022/2023	83	52	63%	15
Hickory Annex	2022/2023	162	81	50%	44
Hickory Bus Lot	2022/2023	1	0	0%	9
Hickory Elementary	2022/2023	75	47	63%	17
Homestead Wakefield - Homestead	2022/2023	85	58	68%	12
Jarrettsville Elementary	2022/2023	79	48	61%	25
Joppatowne Elementary	2022/2023	74	46	62%	21
Joppatowne High	2022/2023	84	42	50%	17
Magnolia Elementary	2022/2023	81	49	60%	20
Magnolia Middle	2022/2023	80	52	65%	18
Meadowvale Elementary	2022/2023	79	52	66%	23
Norrisville Elementary	2022/2023	67	45	67%	19
North Bend Elementary	2022/2023	74	46	62%	22
North Harford Elementary	2022/2023	70	50	71%	22
North Harford High	2022/2023	114	83	73%	20
North Harford Middle	2022/2023	75	50	67%	24
Old Post Intermediate	2022/2023	37	24	65%	18
Old Post Primary	2022/2023	70	46	66%	21
Patterson Mill Middle/High School	2022/2023	136	86	63%	12
Prospect Mill Elementary	2022/2023	66	48	73%	19
Red Pump Elementary	2022/2023	83	49	59%	19
Ring Factory Elementary	2022/2023	75	45	60%	16
Riverside Elementary	2022/2023	57	41	72%	20
Roye Williams Elementary	2022/2023	69	47	68%	20
Southampton Middle	2022/2023	55	27	49%	18
William S James Elementary	2022/2023	73	42	58%	19
Youth's Benefit Elementary	2022/2023	71	46	65%	45

WORK ORDER SUMMARY BY CRAFT PM

Craft	Fiscal Year	# Created	# Completed	% Complete	Avg Work Days to Comp
Boiler	2022/2023	6	4	67%	16
Building Automation	2022/2023	1	1	100%	11
Carpentry	2022/2023	115	29	25%	19
Custodial	2022/2023	111	70	63%	38
Doors and Hardware	2022/2023	55	14	25%	15
Electrical	2022/2023	3	3	100%	7
Environmental Services	2022/2023	2			
Grass Cutting	2022/2023	1845	1470	80%	16
Grounds	2022/2023	208	132	63%	34
Grounds Equipment Repair	2022/2023	177	133	75%	24
Gym Equipment	2022/2023	54	0	0%	0
Heating/Ventilation/Air Conditioning	2022/2023	1157	490	42%	33
Painting	2022/2023	27	0	0%	0
Pest Control	2022/2023	287	260	91%	10
Playground	2022/2023	60	46	77%	16
Plumbing	2022/2023	101	52	51%	24
Scissor Lifts	2022/2023	61	4	7%	12
Sewage/Water Treatment Plant	2022/2023	14	0	0%	0
Structure	2022/2023	43	40	93%	3
Water Quality	2022/2023	3	0	0%	0

HARFORD COUNTY PUBLIC SCHOOLS Facilities Management Department 410-638-4088



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