

Millcreek Township School District
Long Range Capital Reserve Plan
Equipment Life Expectancy
2019



Priority	Estimated Cost	General Capital Projects (Per Year)								
	\$ 420,000.00	Asphalt Repair and Replacement								
	\$ 120,000.00	Concrete Repair and Replacement								
	\$ 50,000.00	Flooring/Carpet								
	\$ 50,000.00	Miscellaneous Work								
	\$ 100,000.00	Requested Summer Projects (i.e. Renovation)								
	\$ 100,000.00									
		Asbury	Built in 2004	Input Year:	2019					
		Roof	Warranty Thru - 2024							
		HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
		Boilers (Pulsating-Steel Water-Tube)	2004	15	25	21	24	25	10	Boiler is no longer in production. Parts are difficult to find. Preventative maintenance was not done until this year.
		Fluid Cooler	2004	15	20	18	18	N/A	5	
		Heat Pumps	2004	15	19	25	18	20	5	We have had issues with these failing.
		Rooftop Units	2004	15	15	22	15	20	7	
		HVAC Ductwork	2004	15	30	N/A	30	N/A	15	
		Diffusers/Grilles and Registers	2004	15	27	N/A	27	N/A	12	Age/Upkeep of the distribution equipment will dictate life expectancy.
		Unit Heaters (Electric)	2004	15	13	13	10	N/A	-2	
		Unit Heaters (Steam/Hot Water)	2004	15	20	N/A	20	N/A	5	
		Exhaust Fans	2004	15	20	16	20	N/A	1	
		Insulation Ductwork/Piping	2004	15	24	N/A	24	N/A	9	
		(Base) Mounted Condenser Water Pumps	2004	15	20	20	25	N/A	10	
		HVAC Condenser Piping System	2004	15	N/A	N/A	30	N/A	15	
		Building Temperature Controls (DDC)	2004	15	15	22	20	N/A	5	
		Valve Actuators (Self Contained)	2004	15	15	N/A	10	N/A	-5	We have begun replacing these on an as needed basis.
		Water Heaters	2004	15	N/A	15	10	N/A	0	
		Plumbing Fixtures	2004	15	N/A	N/A	20	N/A	5	
		Domestic Piping System	2004	15	N/A	N/A	30	N/A	15	
		Electrical Equipment								
		Emergency Generator	2004	15	N/A	N/A	20	30	15	
		Branch Panel boards	2004	15	N/A	N/A	30	50	15	
		Electric Transformers	2004	15	30	N/A	30	N/A	15	
		Low Voltage Wiring	2004	15	N/A	N/A	20	N/A	5	
		Main Switchboard	2004	15	N/A	N/A	25	50	35	
		Light Fixtures	2004	15	N/A	N/A	20	N/A	5	We retrofit the fixtures, but a life expectancy of 20 years is the industry standard.
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	Information will be obtained during
	\$ 20,000.00	PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	Existing System is obsolete, new parts are expensive and becoming tougher to find, and this system will not meet recommended security protocols.
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		Fire Protection System	2004	15	N/A	N/A	25	N/A	10	Building Fully Sprinkled.
		Belle Valley	Built in 1990							
		Roof	Warranty Thru - 2043							
	\$ 1,745,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
	\$ 100,000.00	Boilers (Water Tube)	1990	29	24	21	24	24	-5	
	\$ 650,000.00	Unit Ventilators	1990	29	20	37	20	N/A	-9	
	\$ 300,000.00	Air Handling Units	1990	29	N/A	26	25	N/A	-4	
		HVAC Ductwork	1990	29	30	N/A	30	N/A	1	
		Diffusers/Grilles and Registers	1990	29	27	N/A	27	N/A	-2	
		Unit Heaters (Steam/Hot Water)	1990	29	20	N/A	20	N/A	-9	
		Exhaust Fans	1990	29	20	16	20	N/A	-13	
		Insulation Ductwork/Piping	1990	29	24	N/A	24	N/A	-5	
		(Base) Mounted HW Pumps	1990	29	20	20	25	N/A	-4	
		HVAC HW Piping System	1990	29	N/A	N/A	30	N/A	1	
	\$ 650,000.00	Building Temperature Controls (Pneumatic)	1990	29	20	37	18	20	-11	
		Valve Actuators (Self Contained)	1990	29	15	N/A	10	N/A	-19	
		Split Air-Cooled Chiller	2010	9	23	23	20	25	11	
		(Base) Mounted Chilled Water Pumps	1990	29	20	20	25	N/A	-4	
		HVAC Chilled Water Piping	1990	29	N/A	N/A	30	N/A	1	

	\$	20,000.00	Water Heaters	1990	29	N/A	15	10	N/A	-14	
	\$	25,000.00	Plumbing Fixtures	1990	29	N/A	N/A	20	N/A	-9	
			Domestic Piping System	1990	29	N/A	N/A	30	N/A	1	
	\$	200,000.00	Electrical Equipment								
	\$	200,000.00	Emergency Generator	1990	29	N/A	N/A	20	30	1	
			Branch Panel boards	1990	29	N/A	N/A	30	50	1	
			Electric Transformers	1990	29	30	N/A	30	N/A	1	
			Low Voltage Wiring	1990	29	N/A	N/A	20	N/A	-9	
			Main Switchboard	1990	29	N/A	N/A	25	50	21	
			Light Fixtures	1990	29	N/A	N/A	20	N/A	-9	
			Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
	\$	187,000.00	Fire Alarm System	1990	29	N/A	N/A	10	25	-4	
			PA/Intercom	2017	2	N/A	N/A	10	N/A	8	
			Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
			Chestnut Hill	Built in 1965							
			Roof	Warranty Thru - 2043							
	\$	380,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
	\$	150,000.00	Boilers (Cast Iron Steam)	2011	8	30	37	28	30	22	
			Unit Ventilators	1963	56	20	37	20	N/A	-36	*Add Air Conditioning included at \$1,200,000
			Rooftop Units	1963	56	15	22	15	20	-34	
			HVAC Ductwork	1963	56	30	N/A	30	N/A	-26	
			Diffusers/Grilles and Registers	1963	56	27	N/A	27	N/A	-29	
			Unit Heaters (Steam/Hot Water)	1963	56	20	N/A	20	N/A	-36	
			Exhaust Fans	1963	56	20	16	20	N/A	-40	
			Insulation Ductwork/Piping	1963	56	24	N/A	24	N/A	-32	
			Condensate Pump	1963	56	20	20	25	N/A	-31	
			HVAC Steam Piping System	1963	56	N/A	N/A	30	N/A	-26	
	\$	230,000.00	Building Temperature Controls (Pneumatic)	1963	56	20	37	18	20	-38	
			Valve Actuators (Self Contained)	1963	56	15	N/A	10	N/A	-46	
			Water Heaters	TBD	#VALUE!	N/A	15	10	N/A	#VALUE!	
			Plumbing Fixtures	1963	56	N/A	N/A	20	N/A	-36	
			Domestic Piping System	1963	56	N/A	N/A	30	N/A	-26	
	\$	65,000.00	Electrical Equipment								
			Emergency Generator	2013	6	N/A	N/A	20	30	24	
	\$	40,000.00	Branch Panel boards	1963	56	N/A	N/A	30	50	-26	
			Electric Transformers	1963	56	30	N/A	30	N/A	-26	
			Low Voltage Wiring	1963	56	N/A	N/A	20	N/A	-36	
			Main Switchboard	TBD	#VALUE!	N/A	N/A	25	50	#VALUE!	
	\$	25,000.00	Light Fixtures	1963	56	N/A	N/A	20	N/A	-36	For Cafeteria/Gymnasium
			Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
			Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
	\$	20,000.00	PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	Existing System is obsolete, new parts are expensive and becoming tougher to find, and this system will not meet recommended security protocols.
			Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
			Grandview	Built in 1971							
	\$	1,200,000.00	Roof	Warranty Thru - 2022/No Warranty							
			HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
			Boilers (Pulsating-Steel Water-Tube)	2013	6	25	21	24	25	19	
			Rooftop Units	1971	48	15	22	15	20	-26	(8 of 10) Units have been replaced in the last 4 years.
			HVAC Ductwork	1971	48	30	N/A	30	N/A	-18	Duct board is currently being utilized.
			Diffusers/Grilles and Registers	1971	48	27	N/A	27	N/A	-21	Built into ceiling grid with ductwork.
	\$	4,000,000.00	(Air Distribution) Terminal Units	1971	48	20	N/A	25	N/A	-23	
			Unit Heaters (Electric)	1971	48	13	13	10	N/A	-35	
			Unit Heaters (Steam/Hot Water)	1987	32	20	N/A	20	N/A	-12	
	\$	18,000.00	Exhaust Fans	1971	48	20	16	20	N/A	-32	
			Insulation Ductwork/Piping	1971	48	24	N/A	24	N/A	-24	
			(Base) Mounted HW Pumps	1987	32	20	20	25	N/A	-7	
			HVAC HW Piping System	1987	32	N/A	N/A	30	N/A	-2	
			Building Temperature Controls (DDC)	TBD	#VALUE!	15	N/A	20	N/A	#VALUE!	

		Valve Actuators (Self Contained)	1971	48	15	N/A	10	N/A	-38	
		Water Heaters	TBD	#VALUE!	N/A	15	10	N/A	#VALUE!	
		Plumbing Fixtures	1971	48	N/A	N/A	20	N/A	-28	
		Domestic Piping System	1971	48	N/A	N/A	30	N/A	-18	
		Electrical Equipment								
		Emergency Generator	TBD	#VALUE!	N/A	N/A	20	30	#VALUE!	
		Branch Panel boards	1971	48	N/A	N/A	30	50	-18	
		Electric Transformers	1971	48	30	N/A	30	N/A	-18	
		Low Voltage Wiring	1971	48	N/A	N/A	20	N/A	-28	
		Main Switchboard	1971	48	N/A	N/A	25	50	2	
	\$ 184,000.00	Light Fixtures	1971	48	N/A	N/A	20	N/A	-28	
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
		PA/Intercom	2016	3	N/A	N/A	10	N/A	7	
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		Ridgefield	Built in 1952							
	\$ 150,000.00	Roof	Warranty Thru - 2012							
	\$ 1,120,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
		Boilers (Cast Iron Steam)	2007	12	30	37	28	30	18	
	\$ 1,000,000.00	Unit Ventilators	1952	67	20	37	20	N/A	-47	
		Rooftop Units	2007	12	15	22	15	20	10	
		HVAC Ductwork	1952	67	30	N/A	30	N/A	-37	
		Diffusers/Grilles and Registers	1952	67	27	N/A	27	N/A	-40	
		Unit Heaters (Steam/Hot Water)	1954	65	20	N/A	20	N/A	-45	
		(Base) Mounted HW Pumps	1954	65	20	20	25	N/A	-40	
		HVAC HW Piping System	1954	65	N/A	N/A	30	N/A	-35	
		Boilers (Pulsating-Steel Water-Tube)	2007	12	25	21	24	25	13	
		Exhaust Fans	1952	67	20	16	20	N/A	-51	
		Insulation Ductwork/Piping	1952	67	24	N/A	24	N/A	-43	
		Condensate Pump	2007	12	20	20	25	N/A	13	
		HVAC Steam Piping System	1952	67	N/A	N/A	30	N/A	-37	
	\$ 120,000.00	Building Temperature Controls (Pneumatic)	1972	47	20	37	18	20	-29	
		Valve Actuators (Self Contained)	1952	67	15	N/A	10	N/A	-57	
		Water Heaters	2007	12	N/A	15	10	N/A	3	
		Plumbing Fixtures	1952	67	N/A	N/A	20	N/A	-47	
		Domestic Piping System	1952	67	N/A	N/A	30	N/A	-37	
		Electrical Equipment								
		Emergency Generator	TBD	#VALUE!	N/A	N/A	20	30	#VALUE!	
		Branch Panel boards	1952	67	N/A	N/A	30	50	-37	
		Electric Transformers	1952	67	30	N/A	30	N/A	-37	
		Low Voltage Wiring	1952	67	N/A	N/A	20	N/A	-47	
		Main Switchboard	1952	67	N/A	N/A	25	50	-17	
		Light Fixtures	TBD	#VALUE!	N/A	N/A	20	N/A	#VALUE!	
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
		PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		Tracy	Built in 1998							
	\$ 225,000.00	Roof	Warranty Thru - 2018 - Report states multiple leaks							
	\$ 2,150,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
		Boilers (Cast Iron - Hot Water)	1998	21	25	21	24	25	4	
	\$ 1,500,000.00	Rooftop Units	1998	21	15	22	15	20	1	
		HVAC Ductwork	1998	21	30	N/A	30	N/A	9	
		Diffusers/Grilles and Registers	1998	21	27	N/A	27	N/A	6	
		(Air Distribution) Terminal Units	1998	21	20	N/A	25	N/A	4	
		Unit Heaters (Steam/Hot Water)	1998	21	20	N/A	20	N/A	-1	
		Exhaust Fans	1998	21	20	16	20	N/A	-5	
		Insulation Ductwork/Piping	1998	21	24	N/A	24	N/A	3	
		(Base) Mounted HW Pumps	1998	21	20	20	25	N/A	4	
		HVAC HW Piping System	1998	21	N/A	N/A	30	N/A	9	
	\$ 650,000.00	Building Temperature Controls (Pneumatic)	1998	21	20	37	18	20	-3	

		Valve Actuators (Self Contained)	1998	21	15	N/A	10	N/A	-11		
		Water Heaters	1998	21	N/A	15	10	N/A	-6		
		Plumbing Fixtures	1998	21	N/A	N/A	20	N/A	-1		
		Domestic Piping System	1998	21	N/A	N/A	30	N/A	9		
	\$	128,000.00	Electrical Equipment								
		Emergency Generator	2004	15	N/A	N/A	20	30	15		
		Branch Panel boards	2004	15	N/A	N/A	30	50	15		
		Electric Transformers	2004	15	30	N/A	30	N/A	15		
		Low Voltage Wiring	2004	15	N/A	N/A	20	N/A	5		
		Main Switchboard	2004	15	N/A	N/A	25	50	35		
	\$	128,000.00	Light Fixtures	2004	15	N/A	20	N/A	5		
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!		
	\$	132,000.00	Fire Alarm System	1998	21	N/A	N/A	10	25	4	
		PA/Intercom	2018	1	N/A	N/A	10	N/A	9		
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!		
		Fire Protection System	1998	21	N/A	N/A	25	N/A	4	Building Fully Sprinkled	
		J.S. Wilson	Built in 1967								
		Roof	Warranty Thru - 2028 - Skylight Repairs required on a required schedule								
	\$	15,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
			Boilers (Pulsating-Steel Water-Tube)	2008	11	25	21	24	25	14	
			Heat Pumps	2008	11	19	25	18	20	9	
			Rooftop Units	2008	11	15	22	15	20	11	
			HVAC Ductwork	2008	11	30	N/A	30	N/A	19	
			Diffusers/Grilles and Registers	2008	11	27	N/A	27	N/A	16	
			Unit Heaters (Electric)	2008	11	13	13	10	N/A	2	
			Exhaust Fans	2008	11	20	16	20	N/A	5	
			Insulation Ductwork/Piping	2008	11	24	N/A	24	N/A	13	
			(Base) Mounted HW Pumps	2008	11	20	20	25	N/A	14	
	\$	15,000.00	HVAC Condenser Water Piping System	2008	11	N/A	N/A	30	N/A	19	Add Glycol to the system.
			Building Temperature Controls (DDC)	2008	11	15	N/A	20	N/A	9	Chiller on the roof has never been used.
			Valve Actuators (Self Contained)	2008	11	15	N/A	10	N/A	-1	
			Water Heaters	2008	11	N/A	15	10	N/A	4	
			Plumbing Fixtures	2008	11	N/A	N/A	20	N/A	9	
			Domestic Piping System	2008	11	N/A	N/A	30	N/A	19	
			Electrical Equipment								
			Emergency Generator	2008	11	N/A	N/A	20	30	19	
			Branch Panel boards	2008	11	N/A	N/A	30	50	19	
			Electric Transformers	2008	11	30	N/A	30	N/A	19	
			Low Voltage Wiring	2008	11	N/A	N/A	20	N/A	9	
			Main Switchboard	2008	11	N/A	N/A	25	50	39	
			Light Fixtures	2008	11	N/A	N/A	20	N/A	9	
			Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
			Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
	\$	20,000.00	PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	Existing System is obsolete, new parts are expensive and becoming tougher to find, and this system will not meet recommended security protocols.
			Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
			Fire Protection System	2008	11	N/A	N/A	25	N/A	14	Building Fully Sprinkled.
			Walnut Creek	Built in 1993							
	\$	480,000.00	Roof	Warranty Thru - 2019/2021/2027							
	\$	5,912,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
	\$	4,900,000.00	Boilers (Pulsating-Steel Water-Tube)	1993	26	25	21	24	25	-1	Cost Labeled as Existing Mechanical System in Building
			Split Air-Cooled Chiller	1993	26	23	23	20	25	-6	Utilizing R-22 Refrigerant (No longer being made)
			Air Handling Units	1993	26	N/A	26	25	N/A	-1	
			Rooftop Units	1993	26	15	22	15	20	-4	
	\$	250,000.00	Unit Ventilators	1993	26	20	37	20	N/A	-6	
			HVAC Ductwork	1993	26	30	N/A	30	N/A	4	
			Diffusers/Grilles and Registers	1993	26	27	N/A	27	N/A	1	

		(Air Distribution) Terminal Units with Reheat	1993	26	20	N/A	20	N/A	-6		
		Unit Heaters (Steam/Hot Water)	1993	26	20	N/A	20	N/A	-6		
		(Base) Mounted Chilled Water Pumps	1993	26	20	20	25	N/A	-1		
		HVAC Chilled Water Piping	1993	26	N/A	N/A	30	N/A	4		
		Exhaust Fans	1993	26	20	16	20	N/A	-10		
		Insulation Ductwork/Piping	1993	26	24	N/A	24	N/A	-2		
		(Base) Mounted HW Pumps	1993	26	20	20	25	N/A	-1		
		HVAC HW Piping System	1993	26	N/A	N/A	30	N/A	4		
	\$	750,000.00	Building Temperature Controls (DDC)	1993	26	15	N/A	20	N/A	-6	Obsolete Controllers - parts are becoming tougher to get. This is a District Wide Problem.
			Valve Actuators (Self Contained)	1993	26	15	N/A	10	N/A	-16	
	\$	12,000.00	Water Heaters	1993	26	N/A	15	10	N/A	-11	
			Plumbing Fixtures	1993	26	N/A	N/A	20	N/A	-6	
			Domestic Piping System	1993	26	N/A	N/A	30	N/A	4	
	\$	220,000.00	Electrical Equipment								
			Emergency Generator	1993	26	N/A	N/A	20	30	4	
			Branch Panel boards	1993	26	N/A	N/A	30	50	4	
			Electric Transformers	1993	26	30	N/A	30	N/A	4	
			Low Voltage Wiring	1993	26	N/A	N/A	20	N/A	-6	
			Main Switchboard	1993	26	N/A	N/A	25	50	24	
	\$	220,000.00	Light Fixtures	1993	26	N/A	N/A	20	N/A	-6	
	\$	175,000.00	Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
			Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
	\$	43,000.00	PA/Intercom	2016	3	N/A	N/A	10	N/A	7	
			Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
			Fire Protection System	1993	26	N/A	N/A	25	N/A	-1	Building Fully Sprinkled.
			Westlake	Built in 1958							
	\$	400,000.00	Roof	Warranty Thru - 2016							
	\$	4,074,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
	\$	4,000,000.00	Boilers (Pulsating-Steel Water-Tube)	1996	23	25	21	24	25	2	Building Mechanical System Upgrades
			Cooling Tower	1996	23	20	18	18	N/A	-3	
			Water Cooled Chiller	1996	23	23	20	20	N/A	0	
			Unit Ventilators	1996	23	20	37	20	N/A	-3	
			(Base) Mounted Chilled Water Pumps	1996	23	20	20	25	N/A	2	
			HVAC Chilled Water Piping	1996	23	N/A	N/A	30	N/A	7	
			Rooftop Units	1996	23	15	22	15	20	-1	
			HVAC Ductwork	1996	23	30	N/A	30	N/A	7	
			Diffusers/Grilles and Registers	1996	23	27	N/A	27	N/A	4	
			(Air Distribution) Terminal Units with Reheat	1996	23	20	N/A	20	N/A	-3	
			Unit Heaters (Electric)	1996	23	13	13	10	N/A	-10	
			Unit Heaters (Steam/Hot Water)	1996	23	20	N/A	20	N/A	-3	
	\$	24,000.00	Exhaust Fans	1996	23	20	16	20	N/A	-7	
			Insulation Ductwork/Piping	1996	23	24	N/A	24	N/A	1	
			(Base) Mounted HW Pumps	1996	23	20	20	25	N/A	2	
	\$	50,000.00	HVAC HW Piping System	1996	23	N/A	N/A	30	N/A	7	Victaulic Fittings Failing (SCH 10)
			Building Temperature Controls (Pneumatic)	1996	23	20	37	18	20	-5	
			Valve Actuators (Self Contained)	1996	23	15	N/A	10	N/A	-13	
			Water Heaters	1996	23	N/A	15	10	N/A	-8	
			Plumbing Fixtures	1996	23	N/A	N/A	20	N/A	-3	
			Domestic Piping System	1996	23	N/A	N/A	30	N/A	7	
	\$	215,000.00	Electrical Equipment								
			Emergency Generator	1996	23	N/A	N/A	20	30	7	
			Branch Panel boards	1996	23	N/A	N/A	30	50	7	
			Electric Transformers	1996	23	30	N/A	30	N/A	7	
			Low Voltage Wiring	1996	23	N/A	N/A	20	N/A	-3	
			Main Switchboard	1996	23	N/A	N/A	25	50	27	
	\$	215,000.00	Light Fixtures	1996	23	N/A	N/A	20	N/A	-3	
	\$	92,000.00	Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
			Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
			PA/Intercom	2018	1	N/A	N/A	10	N/A	9	
			Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	

		Learning Center	Built in 1956							
		Roof	Warranty Thru - 2006/2015							
		HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
\$	2,410,000.00	Boilers (Cast Iron Steam)	2007	12	30	37	28	30	18	Upgrade HVAC System
\$	1,400,000.00	Unit Ventilators	1956	63	20	37	20	N/A	-43	
\$	110,000.00	HVAC Ductwork	1956	63	30	N/A	30	N/A	-33	Option #2 Add A/C
\$	900,000.00	Diffusers/Grilles and Registers	1956	63	27	N/A	27	N/A	-36	
		Unit Heaters (Steam/Hot Water)	1956	63	20	N/A	20	N/A	-43	
		Exhaust Fans	1956	63	20	16	20	N/A	-47	
		Insulation Ductwork/Piping	1956	63	24	N/A	24	N/A	-39	
		Condensate Pump	2007	12	20	20	25	N/A	13	
		HVAC HW Piping System	1956	63	N/A	N/A	30	N/A	-33	
		Building Temperature Controls (Pneumatic)	1956	63	20	37	18	20	-45	
		Valve Actuators (Self Contained)	1956	63	15	N/A	10	N/A	-53	
		Water Heaters	TBD	#VALUE!	N/A	15	10	N/A	#VALUE!	
		Plumbing Fixtures	1956	63	N/A	N/A	20	N/A	-43	
		Domestic Piping System	1956	63	N/A	N/A	30	N/A	-33	
\$	159,000.00	Electrical Equipment								
\$	75,000.00	Emergency Generator	1992	27	N/A	N/A	20	30	3	
		Branch Panel boards	1956	63	N/A	N/A	30	50	-33	
		Electric Transformers	1992	27	30	N/A	30	N/A	3	
		Low Voltage Wiring	1956	63	N/A	N/A	20	N/A	-43	
		Main Switchboard	1992	27	N/A	N/A	25	50	23	
\$	84,000.00	Light Fixtures	1956	63	N/A	N/A	20	N/A	-43	
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
\$	78,000.00	Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
		PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		MIHS								
		Roof	Warranty Thru - 2017/2026/2038/2043							
\$	13,805,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	Comments
\$	300,000.00	Boilers (Cast Iron - Hot Water)	1989	30	25	21	24	25	-5	
\$	13,325,000.00	Cooling Tower	1989	30	20	18	18	N/A	-10	Complete Replacement
		Water Cooled Chiller	1989	30	23	20	20	N/A	-7	Utilizing R-11 Refrigerant (No longer being made)
		(Base) Mounted Chilled Water Pumps	1972	47	20	20	25	N/A	-22	
		HVAC Chilled Water Piping	1972	47	N/A	N/A	30	N/A	-17	
		Air Handling Units	1972	47	N/A	26	25	N/A	-22	
		Rooftop Units	1972	47	15	22	15	20	-25	
		HVAC Ductwork	1972	47	30	N/A	30	N/A	-17	
		Diffusers/Grilles and Registers	1972	47	27	N/A	27	N/A	-20	
\$	30,000.00	(Air Distribution) Terminal Units	1972	47	20	N/A	25	N/A	-22	
		Unit Heaters (Electric)	1972	47	13	13	10	N/A	-34	
		Unit Heaters (Steam/Hot Water)	1972	47	20	N/A	20	N/A	-27	
		Exhaust Fans	1972	47	20	16	20	N/A	-31	
		Insulation Ductwork/Piping	1972	47	24	N/A	24	N/A	-23	
		(Base) Mounted HW Pumps	1972	47	20	20	25	N/A	-22	
		HVAC HW Piping System	1972	47	N/A	N/A	30	N/A	-17	
		Building Temperature Controls (Pneumatic)	1972	47	20	37	18	20	-29	
		Valve Actuators (Self Contained)	1972	47	15	N/A	10	N/A	-37	
\$	150,000.00	Water Heaters	1989	30	N/A	15	10	N/A	-15	
		Plumbing Fixtures	1972	47	N/A	N/A	20	N/A	-27	
		Domestic Piping System	1972	47	N/A	N/A	30	N/A	-17	
\$	1,310,000.00	Electrical Equipment								
\$	300,000.00	Emergency Generator	1989	30	N/A	N/A	20	30	0	
\$	100,000.00	Branch Panel boards	2004	15	N/A	N/A	30	50	15	Includes fixing of duct bank from MHS
		Electric Transformers	2004	15	30	N/A	30	N/A	15	
\$	30,000.00	Low Voltage Wiring	2004	15	N/A	N/A	20	N/A	5	
\$	200,000.00	Main Switchboard	1972	47	N/A	N/A	25	50	3	2 Options Provided by Stantec to address.
\$	320,000.00	Replace Motor Control Center	1972	47	N/A	N/A	25	50	3	
\$	360,000.00	Light Fixtures	1972	47	N/A	N/A	20	N/A	-27	
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	

	\$ 20,000.00	PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	Existing System is obsolete, new parts are expensive and becoming tougher to find, and this system will not meet recommended security protocols.
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		Fire Protection System	1989	30	N/A	N/A	25	N/A	-5	Building Fully Sprinkled.
		McDowell	Built in 1953							
		Roof	Warranty Thru - No Warranty/2018/2028							
	\$ 7,800,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	
	\$ 200,000.00	Boilers (Pulsating-Steel Water-Tube)	2007	12	25	21	24	25	13	Weren't boilers just replaced?
	\$ 300,000.00	Unit Ventilators	1988	31	20	37	20	N/A	-11	
	\$ 6,000,000.00	Air Handling Units	1988	31	N/A	26	25	N/A	-6	Air Conditioning Option #2
		HVAC Ductwork	1988	31	30	N/A	30	N/A	-1	
		Diffusers/Grilles and Registers (Air Distribution) Terminal Units	1988	31	27	N/A	27	N/A	-4	
		Unit Heaters (Steam/Hot Water)	1988	31	20	N/A	25	N/A	-6	
		Exhaust Fans	1988	31	20	16	20	N/A	-15	
		Insulation Ductwork/Piping	1988	31	24	N/A	24	N/A	-7	
		(Base) Mounted HW Pumps	1988	31	20	20	25	N/A	-6	
		HVAC HW Piping System	1988	31	N/A	N/A	30	N/A	-1	
	\$ 1,300,000.00	Building Temperature Controls (Pneumatic)	1988	31	15	N/A	20	N/A	-11	
		Valve Actuators (Self Contained)	1988	31	15	N/A	10	N/A	-21	
		Water Heaters	1988	31	N/A	15	10	N/A	-16	
		Plumbing Fixtures	1988	31	N/A	N/A	20	N/A	-11	
		Domestic Piping System	1988	31	N/A	N/A	30	N/A	-1	
	\$ 470,000.00	Electrical Equipment								
	\$ 200,000.00	Emergency Generator	1988	31	N/A	N/A	20	30	-1	
		Branch Panel boards	1988	31	N/A	N/A	30	50	-1	
		Electric Transformers	1988	31	30	N/A	30	N/A	-1	
		Low Voltage Wiring	1988	31	N/A	N/A	20	N/A	-11	
		Main Switchboard	2014	5	N/A	N/A	25	50	45	
	\$ 270,000.00	Light Fixtures	1988	31	N/A	N/A	20	N/A	-11	
		Security System	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	
		Fire Alarm System	TBD	TBD	N/A	N/A	10	25	#VALUE!	
	\$ 20,000.00	PA/Intercom	TBD	TBD	N/A	N/A	10	N/A	#VALUE!	Existing System is obsolete, new parts are expensive and becoming tougher to find, and this system will not meet recommended security protocols.
		Clocks	TBD	TBD	N/A	20	N/A	N/A	#VALUE!	
		Education Center	Built in 1969							
		Roof	Warranty Thru - 2029							
	\$ 470,000.00	HVAC Equipment	Installation Date	Age of Equipment	Service Life Estimate	Database Service Life	(BOMA) Service Life	Stantech Service Life	Remaining Life	
	\$ 450,000.00	Boilers (Pulsating-Steel Water-Tube)	2011	8	25	21	24	25	17	
		(Air Distribution) Terminal Units with Reheat	1969	50	20	N/A	20	N/A	-30	HVAC
		Air Handling Units	1969	50	N/A	26	25	N/A	-25	
		Split Air-Cooled Chiller	2011	8	23	23	20	25	12	
		(Base) Mounted Chilled Water Pumps	1969	50	20	20	25	N/A	-25	
		HVAC Chilled Water Piping	1969	50	N/A	N/A	30	N/A	-20	
		HVAC Ductwork	1969	50	30	N/A	30	N/A	-20	
		Diffusers/Grilles and Registers	1969	50	27	N/A	27	N/A	-23	
		Unit Heaters (Steam/Hot Water)	1969	50	20	N/A	20	N/A	-30	
		Exhaust Fans	1969	50	20	16	20	N/A	-34	
		Insulation Ductwork/Piping	1969	50	24	N/A	24	N/A	-26	
	\$ 20,000.00	(Base) Mounted HW Pumps	1969	50	20	20	25	N/A	-25	
		HVAC HW Piping System	1969	50	N/A	N/A	30	N/A	-20	
		Building Temperature Controls (Pneumatic)	1969	50	15	N/A	20	N/A	-30	
		Valve Actuators (Self Contained)	1969	50	15	N/A	10	N/A	-40	
		Water Heaters	1969	50	N/A	15	10	N/A	-35	
		Plumbing Fixtures	1969	50	N/A	N/A	20	N/A	-30	
		Domestic Piping System	1969	50	N/A	N/A	30	N/A	-20	
	\$ 30,000.00	Electrical Equipment								
		Emergency Generator	TBD	#VALUE!	N/A	N/A	20	30	#VALUE!	
	\$ 30,000.00	Branch Panel boards	1969	50	N/A	N/A	30	50	-20	

