



Wheaton School District 200

Improvement List

November 4, 2024

Scope Item	Improvement Summary	Total Cost	Estimated Rebate	Annual Energy Savings	Annual Maintenance Savings	Annual Cost Avoidance	Payback
Bower Elementary School							
BES-1	Rooftop Unit Replacements	\$587,765	\$3,000	\$300	\$1,000	\$58,776	9.7
	<p><i>This ECM replaces old DX/gas fired single zone rooftop units with new efficient units.</i></p> <ul style="list-style-type: none"> * Demolish (5) existing single zone gas fired/ DX roof top units * Install (5) new controls ready Variable air volume rooftop units with curb adaptors, modify existing gas piping as required for installation of RTUs * Install (5) curb adaptors * Install new direct digital controls on new mechanical equipment listed in scope item and connect to existing JACE in building. Include new scheduling, trending, alarms and graphics. 						
BES-2	Chiller Replacement	\$448,604	\$5,000	\$10,000	\$1,500	\$44,860	7.9
	<p><i>This ECM upgrades the chiller by replacing old, inefficient equipment that is past its useful life with new, highly efficient equipment that allows for better control and reduced energy consumption.</i></p> <ul style="list-style-type: none"> * Demolish (1) existing chiller, existing chiller pump, hydronic accessories, and chilled water piping as required in outside chiller enclosure. * Provide structural reinforcement of roof structure for new chiller. * Install (1) new high efficiency chiller, pump, VFD, hydronic accessories, and chilled water piping and insulation as required. * Install new direct digital controls on new mechanical equipment listed in scope item. * Install new direct digital controls on new mechanical equipment listed in scope item and connect to existing JACE in building. Include new scheduling, trending, alarms and graphics. 						
Total for Bower Elementary School		\$1,036,369	\$8,000	\$10,300	\$2,500	\$103,637	\$9
Emerson Elementary School							
EES-1	Chiller Replacement and BAS Upgrade	\$426,332	\$5,000	\$10,000	\$1,500	\$42,633	7.8
	<p><i>This ECM upgrades the chiller by replacing old, inefficient equipment that is past its useful life with new, highly efficient equipment that allows for better control and reduced energy consumption. Additionally, its installs a new controls interface to allow web-based visibility on existing controllers.</i></p> <ul style="list-style-type: none"> * Demolish (1) existing chiller, existing chiller pump, hydronic accessories, and chilled water piping as required in outside chiller enclosure. * Install (1) new high efficiency chiller, pump, VFD, hydronic accessories, and chilled water piping and insulation as required. * Install new direct digital controls on new mechanical equipment listed in scope item. * Install new Tridium web accessible energy management system with Distech controllers to operate controls on noted scope in the building. Include new scheduling, trending, alarms, and graphics for the HVAC systems. Install JACE panel in the building to communicate with vendor neutral protocol systems within the building. 						
Total for Emerson Elementary School		\$426,332	\$5,000	\$10,000	\$1,500	\$42,633	7.8
Hawthorne Elementary School							
HES-1	Chiller Replacement and BAS Upgrade	\$423,788	\$5,000	\$10,000	\$1,500	\$42,379	7.8
	<p><i>This ECM upgrades the chiller by replacing old, inefficient equipment that is past its useful life with new, highly efficient equipment that allows for better control and reduced energy consumption. Additionally, its installs a new controls interface to allow web-based visibility on existing controllers.</i></p> <ul style="list-style-type: none"> * Demolish (1) existing chiller, existing chiller pump, hydronic accessories, and chilled water piping as required in outside in chiller enclosure. * Install (1) new high efficiency chiller, pump, VFD, hydronic accessories, and chilled water piping and insulation as required. * Install new direct digital controls on new mechanical equipment listed in scope item. * Install new Tridium web accessible energy management system with Distech controllers to operate controls on noted scope in the building. Include new scheduling, trending, alarms, and graphics for the HVAC systems. Install JACE panel in the building to communicate with vendor neutral protocol systems within the building. 						
Total for Hawthorne Elementary School		\$423,788	\$5,000	\$10,000	\$1,500	\$42,379	7.8

Johnson Elementary School							
JES-1	Storage room ventilation upgrade	\$113,792	\$500	\$10,000	\$0	\$11,379	5.3
	<p><i>This ECM upgrades the boiler plants by replacing old, inefficient equipment that is past its useful life with new, highly efficient equipment that allows for better control and reduced energy consumption.</i></p> <ul style="list-style-type: none"> * Demolish (4) existing wall mounted split systems and outside condensing units. * Install (2) new concealed ducted fan coil units and connect to existing outside air louvers. Route ductwork to new diffusers as required. * Modify and extend existing dual temperature piping to serve new dual temperature coils in fan coil units. Modify and extend existing condensate lines to serve new units. * Install new direct digital controls on new mechanical equipment listed in scope item. 						
Total for Johnson Elementary School		\$113,792	\$500	\$10,000	\$0	\$11,379	5.3

High School Controls Upgrades WWSHS/WNHS							
Controls	Wheaton Warrenville South High School / Wheaton North High School Controls Upgrades	\$325,930	\$5,000	\$10,000	\$2,000	\$32,593	7.2
	<ul style="list-style-type: none"> * This scope is for the replacement of any failed or broken devices (i.e. sensors, valves, dampers, actuators, etc.) or equipment not included in this project as they are discovered in the field during construction. It is recommended for any other items that are discovered during construction that the district would like to address. * Work at WWSHS upgrades to 7 AHUs to add to Tridium control system * Work at WNHS upgrade controls to chillers to Tridium control system 						
Total for Controls		\$325,930	\$5,000	\$10,000	\$2,000	\$32,593	7.2

TOTAL FOR ALL IMPROVEMENTS		\$2,326,212	\$28,000	\$50,300	\$7,500	\$232,621	7.9
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Owner-Directed Allowance							
ODA-BES	Total Recommended Owner Allowance	\$100,000					
	<ul style="list-style-type: none"> * This Owner-Directed Allowance is recommended for the replacement of any failed or broken devices (i.e. sensors, valves, dampers, actuators, etc.) or equipment not included in this project as they are discovered in the field during construction. It is recommended for any other items that are discovered during construction that the district would like to address. This ODA is also in place in case Nicor requires any gas service or meter upgrades and structural steel. * Owner has full control / authority to disperse these funds at its discretion * This Owner-Directed Allowance is included in the project costs of the above scope items 						
Total for ODA		\$100,000					

NOTES:

- Costs are inclusive of engineering, project management, commissioning, bond, and warranty.
- Prices are valid for projects constructed in 2025. If construction occurs after 2025, prices are subject to change.
- Pricing does not include any costs for asbestos abatement, mold abatement, or other hazardous material. It is the responsibility of the owner to notify PSI of any hazardous material and perform the required abatement prior to implementing the project scope of work. Project costs and schedules may change once more information is obtained.
- PSI does not take responsibility for existing-to-remain piping. PSI is not responsible for the condition of existing equipment, piping, valves, or sheet metal ductwork not being replaced under this project.
- Owner will be responsible for removal and replacement of loose furniture/equipment from rooms to allow installation of new systems.
- Operational Savings are Cost Avoidance Savings which represent annual capital dollars that would need to be budgeted over 10 years to install the improvement item.
- Annual Maintenance Savings represent estimated reduced maintenance costs as a result of replacing equipment & systems. Savings estimates are based on historical ASHRAE data.
- Utility rebates/incentives are estimates based on the program currently available from the district's utility companies. These programs and thus the amount of the rebate/incentive are subject to change.
- Utility savings are based upon the utility bills and cost rates (electricity and natural gas) given to PSI by the owner.
- All maintenance and service shall be performed in strict accordance with the manufacturers recommendations. Owner will be responsible for maintaining water treatment after project completion.
- The school district shall provide remote access to monitor/ program the school district BAS system. The school shall provide IT network access to access JACE panels and PSI software.
- PSI assumes the customer's IP network has the capacity needed to accommodate the new control system. Costs are not included for additional patch panels, network switches, virtual server, or configuring remote access. These are presumed to be provided by the customer and coordinated with PSI's project management and controls team.