

Manchester CSD

Present Condition:

The current DDC control system is based on pneumatic operators and electronic control. The pneumatic tubing is compromised in many areas, and thus leaks. This results in a lack of temperature control for spaces and also overheating of spaces. Additionally, there are areas which are underventilated due to the failure of the tubing systems.

Proposed ECM:

Install a complete DDC EMS which provides the functions such as time-of-day scheduling, load shedding, and staggered room level temperature control, building to building communications, and a graphical front end for the system interface. The system shall provide for ease of scheduling events and occupancy, provide for setpoint adjustments, and alarm identifications. Additionally, As part of the Auditorium control system upgrade, the Auditorium Rooftop units will be converted from electric heat to glycol heating.

Summary:

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| Construction Cost: | \$679,048 |
| Estimated Useful Life: | 20 Years |
| Maintenance Costs Effect (+/-) <small>(positive = increase, negative = reduced Operational Cost)</small> | \$0 |
| Estimated Salvage or Disposal Costs: <small>(positive = Disposal, negative = Salvage)</small> | \$0 |

Interactive Savings:

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|---|--------------------------|
| Estimated Annual Fuel Savings (therms) | -1,630 |
| Estimated Annual Fuel Cost Savings | -\$1,157 per year |
| Estimated Annual Electric KWH Savings: | 101774.4 |
| Estimated Annual Electric Cost Savings: | \$8,142 per year |
| Estimated Annual KW Savings: | 675.0 per year |
| Estimated Annual KW Cost Savings: | \$6,750 per year |
| Estimated Annual Cost Savings | \$13,735 per year |
| Simple Payback | 49.4 Years |