



BALTIMORE CITY PUBLIC SCHOOLS

Steam System Optimization Program Saves Public Schools Over \$100,000 per Year

Water Management, Inc.'s (WMI) reputation as a leading water conservation company led Johnson Controls and Pepco Energy Services to subcontract WMI to find and implement unique ways to decrease their client's utility expenses through a two-phase steam system optimization program. Their client, Baltimore City Public Schools (BCPS), had a total of twelve schools in phase one and six schools in phase two with steam boilers that needed modification.



Water Management was responsible for the replacement or retrofitting of the existing mechanical steam traps at BCPS with engineered venturi nozzle condensate removal devices to reduce boiler consumption and maintenance requirements within the facility. The venturi devices were delivered as straight through piping configuration with their own integral strainer. During the installation of the devices, the existing strainer was removed from the line and between the unions, all pipe nipples were replaced with heavy schedule nipples, and all fittings were replaced with extra heavy fittings. In addition, existing thermostatic traps were retrofitted with a venturi nozzle and strainer insert kit.

During project implementation, sample testing of the steam traps in the buildings indicated a failure/leaking rate in the 25-30% range. After program implementation and correction of the traps, the savings accounted for was approximately \$100,000 per year.

