



**ARAMARK SUPPORTS CUNY WITH THE TRANSFORMATION
OF FACILITY OPERATIONS & MAINTENANCE CULTURE
& DELIVERS POSITIVE OUTCOMES THROUGH COLLABORATION
AND COMPREHENSIVE TECHNICAL SERVICES**

Aramark Engineering and Asset Solutions

QUICK STATS

Campuses:	6 Community Colleges
Size:	7 million square feet
Start/End Date:	2014 to Current
Estimated Energy Savings:	\$500K per year
Carbon Footprint Reduction:	11%, the equivalent of 83 cars driven for one year



SERVICE CATEGORY WITH ASSOCIATED SCOPE:

Program Development and Management

Aramark has been secured by The City University of New York (the CUNY) to provide an “O&M Fresh-Eyes Analysis” of their system operations. The objective of this evaluation is to reinvent their existing energy efficiency program and achieve greater savings by leveraging Aramark senior energy managers who do not know anything about the campus or its operations, which allows them to provide a different perspective on the opportunity. As part of this fresh-eyes evaluation, low-cost high return O&M opportunities are being identified to reduce energy usage on campus. This ‘Boots and Suits’ approach includes all departments- from the custodian to Senior Leadership- to meet its operating and sustainability goals. Through the power of program-based change management, institutions can quantifiably improve their operations while reducing maintenance expenditures. As of January 2019, Aramark has completed the evaluation for thirteen (13) of their campuses.

Aramark is also implementing an independent Building Management System Evaluation Study to identify and implement solutions that will enhance software programming to improve sequencing that will drive greater energy savings. In addition, the program evaluates what sensors and actuators require replacement or calibration to ensure energy waste is eliminated.

Project Development

Aramark is actively supporting the project development process for the CUNY on a multitude of fronts. Our team is currently providing the following services that are creating significant energy planning and development opportunities for the CUNY.

- Since 2015, Aramark has been leading the implementation of a retro-commissioning project that includes more than 250 college buildings. As part of this program, Aramark evaluates each opportunity cost, savings, and payback.
- Aramark is completing the implementation of a \$14 million initiative to upgrade the Building Automation Systems at two of CUNY's Community Colleges.
- Aramark has been supporting the investment of more than \$2 million in DCAS ExCEL funding to optimize the Building Automation Systems at six (6) of CUNY's Community Colleges.

Capital Project Development; Design & Engineering Support, Pre-Construction Services

Aramark has a term contract with the Dormitory Authority of the State of New York (DASNY) to provide Energy Performance Contracting (EPC) services to their clients, with a specific focus on the CUNY. This program utilizes a three-phased approach: Phase I - Facility Energy Assessment (FEA); Phase II - Design Services phase; and Phase III - construction services. Aramark has begun two (2) projects under this program. The first being a summer boiler installation at Hostos Community College (CC); and the second, a cooling tower and Building Management System (BMS) upgrade at the CUNY Graduate Center (Graduate Center). The Graduate Center project is about to begin Phase II, while the Hostos CC project is currently completing Phase II. This example will focus on the Hostos CC project, although it should be noted that both of these projects are intended for Aramark to fully complete the implementation of Phase III as well. Both of these projects have leveraged Aramark's prior work at the campuses, which included and O&M Fresh-Eyes, as well as Retro-Commissioning (RCx) studies, to ensure these well thought out projects will deliver long term savings.



Project Development

The project development phase began with an RCx study completed by Aramark, prior to the EPC program. During the study, several capital needs, including the installation of a summer boiler system, were noted for both energy savings and operational improvements. Beginning with this preliminary analysis, Aramark was tasked with performing a full FEA on the potential boiler installation. A complete analysis of the natural gas meter data was performed and field surveys of the impacted systems was completed to determine the actual loads being placed on the boiler system throughout the winter, shoulder, and summer months. Combining this information with real-time metering and the trend data from the BAS allowed our team to create a detailed savings analysis along with a Measurements and Verification (M&V) plan. Additionally, by utilizing our engineering partner, a 30% engineering schematic was completed along with preliminary cost estimates. All of this work was documented in an FEA, reviewed by both DASNY and the CUNY prior to acceptance and the beginning of Phase II.

Design & Engineering Support

Working with our engineering partner, construction documents were developed for review by DASNY and the CUNY. All engineering and documentation was completed utilizing the DASNY design submission requirements. Aramark managed the entire design process and led the design review, beginning with internal reviews to ensure that the design intents were being met and then engaging DASNY and the CUNY to solicit their input. Throughout this design process Aramark continually monitored the progress to ensure that the design would result in the energy savings, which Aramark was guaranteeing to the CUNY, while still meeting budget and schedule constraints. All necessary permitting and hazardous material identification and abatement planning was completed as well.

Pre-Construction Services

Pre-construction services are included as part of Phase II in the DASNY EPC process. The Aramark Project Manager (PM) develops the bidding documents, utilizing both DASNY and the CUNY guidelines and requirements, and facilitates a final review with all parties. Additionally, the PM leads the development of the approved bidder list, resulting in a minimum of five (5) RFQ solicitations for each trade to be contracted. Finally, the PM reviews all proposals, analyzes alternatives for compliance with project objectives and guaranteed savings, and provides a written summary and recommendation of the bid solicitation process. A final update to project budget and schedule is completed by the PM before Phase III is authorized for implementation.



Additional Comments:

Working with two (2) large public entities in DASNY and the CUNY, an understanding of how public institutions operate and the ability to determine the unique processes and requirements of each was critical to moving this project forward. For example, both DASNY and the CUNY have their own design review process. The ability to identify each individual processes early, outline the synergies and differences in each, and plan for these processes before beginning the design phase avoids future project challenges.

Facility Operational Services

Aramark is implementing several project initiatives to enhance the overall facility operational services. The following O&M projects are being implemented.

- Created the Executional O&M Framework for the Agency.
- Evaluated the Computerized Maintenance Management Systems (CMMS) and Preventive Maintenance Programs at thirteen (13) campuses.
- Completed the Asset Inventory and equipment tiering process for six (6) community colleges, which include more than 8,000 pieces of equipment. An asset inventory is the foundational building block for establishing successful O&M program.
- Developing O&M preventive maintenance standards for CUNY's Community Colleges.
- Creating a Boiler Operations Best Practices Program