

## EXPRESSION OF INTEREST

# Martinsburg Readiness Center Design Commissioning Services



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WV PURCHASING  
DIVISION

CEI 0603 ADJ2500000019

Submitted by:



2400 Market Street  
Philadelphia, PA 19103

March 24, 2025

Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

To Whom It May Concern:

Aramark is pleased to submit the attached Expression of Interest to provide commissioning services for the Addition project at the Martinsburg Readiness Center in Martinsburg, WV. We have dedicated local senior-level resources that are able to provide the highest quality services for your project. Aramark is one of the largest third-party commissioning agents in the United States with a diverse portfolio of projects. Our unique operational expertise in these settings distinguishes our service from our competitors.

Aramark has extensive experience and technical capacity to meet and exceed the required needs for commissioning this project for the West Virginia Army National Guard. Aramark has been commissioning buildings and their increasingly complex systems for more than 40 years. We have commissioned more than \$11.5 billion and 90 million GSF of new and renovated facilities. Our technical credibility, operator's perspective, and construction experience has and will continue to aid in the satisfaction of each commissioning project's many objectives.

Our commissioning philosophy is guided by the following three tenets:

1. Provide a facility that operates to support the institutional program.
2. Verify systems achieve peak efficiency.
3. Confirm the building infrastructure is readily maintainable by the operators.

The proposed staff, as well as the broader Aramark commissioning team, is comprised of dedicated full-time commissioning agents. In addition, our team has several BMS engineers to support projects such as this. Our team, including commissioning agents, are well versed in many different control systems and understand the logic behind the operation of the graphical interface. As a result of this approach, we identify many issues that otherwise would have gone undetected.

The commissioning team will be guided and overseen by Frank Snyder, P.E. throughout the commissioning process. Frank has extensive experience working on similar federal projects and will lead a team of field experts to bring their lessons learned and experience to this project. He will be supported by Allison Bailey, P.E., Jacob Rourke, Tim Russ, and Manas Vaidya - all dedicated commissioning team members from the regional team. Chris Skalski, P.E., Senior Manager, Commissioning Services will provide quality control for the commissioning services execution.

As a service organization, we believe it is critical that our team maintain a presence on site throughout the project. Our approach is to maintain commissioning team collaboration and continuity and identify issues that can be corrected and resolved early in the process.

We truly believe that Aramark is the most qualified firm for this project and commit that we will exceed the expectations of the West Virginia Army National Guard. All of Aramark's engagements rely on our seasoned professional staff to function as catalyst and initiator, providing significant commissioning knowledge and experience for the clients we serve.

Should you have any questions regarding this proposal, please do not hesitate to contact Chris Skalski, Senior Manager, directly at 484-368-4180 or via email at [skalski-christopher@aramark.com](mailto:skalski-christopher@aramark.com).

Sincerely,



Brian Lee, P.E., Vice President  
Authorized Signatory of Aramark Management Services Limited Partnership





## TABLE OF CONTENTS

1. QUALIFICATIONS, EXPERIENCE, AND PAST PERFORMANCE .....	5
COMPANY BACKGROUND .....	5
COMMISSIONING EXPERIENCE .....	6
RELEVANT PROJECT EXPERIENCE AND REFERENCES .....	7
ARAMARK'S UNIQUE QUALIFICATIONS .....	15
2. PROJECT TEAM AND QUALIFICATIONS .....	16
BIOGRAPHIES .....	17
3. PROJECT UNDERSTANDING AND APPROACH .....	23

## 1. QUALIFICATIONS, EXPERIENCE, AND PAST PERFORMANCE

### COMPANY BACKGROUND

Aramark is acknowledged as a world leader in managed services – including food, facility, and uniform services – across a broad range of industries that include healthcare, business, educational, and government facilities. Aramark is a \$14 billion publicly traded company with over 270,000 employees serving clients in 19 countries. We have demonstrated through our growth and dedication that we have the expertise, resources, and experience that continues to achieve positive outcomes for our clients every day.

For more than 40 years, Aramark Engineering Solutions has demonstrated proven expertise in developing and implementing energy management programs that promote sustainability and conserve energy. We bring a customized approach based on the individual drivers of each organization.

### ENGINEERING SOLUTIONS (ES)

Recognizing a need to elevate their facilities offering and bring technical expertise to the team, Aramark acquired Facility Resource Management (FRM), now Aramark Engineering Solutions, in 1998. Founded to address the 1970's energy crisis, FRM helped clients develop and implement innovative solutions to analyze and control energy needs as well as all other aspects of their physical plant operations. FRM's fundamental objective was to enable client institutions to be more effective in their primary missions and provided hands-on leadership, identifying improvements and savings that improved the long-term quality and performance of both the facility and staff.

Since the acquisition of FRM, Aramark has become a world leader in facility management and continues to focus on energy solutions on a holistic approach – identifying projects as well as operational modifications to maximize impact to the Owner. Our philosophy for delivering excellence to our clients has been based on the premise that we must first become deeply ingrained in the institutions culture and tradition and be fully aligned with their vision and goals. We then incorporate industry-leading innovation, resources, and talent to our comprehensive solutions, which result in superior, measurable outcomes.

Aramark Engineering Solutions has extensive experience and technical capacity to meet, and exceed, the required needs for commissioning the Martinsburg Readiness Addition project. Aramark has been commissioning buildings and their increasingly complex systems for more than three decades. We have commissioned more than \$11.5 billion and 90 million GSF of new and renovated facilities. Our technical credibility, operator's perspective, and construction experience has and will continue to aid in the satisfaction of each commissioning project's many objectives.

#### FACILITIES COMMISSIONED

- Heating, cooling plants and major electric infrastructure
- Hospitals and mission critical facilities
- Residence halls
- Large classroom, academic, and computer facilities
- Science, research, vivarium, BSL3, and laboratory
- Retro-cx of existing buildings and systems
- Campus & performing arts centers
- Recreation centers (athletic & aquatic)
- Museums and cultural institutions



The Aramark Engineering Solutions team is comprised of technical professionals including, Professional Engineers (PE), Certified Building Commissioning Professionals (BCxP), LEED Accredited Professionals (LEED AP), and other technical designations.

- 16 Professional Engineers
- 12 Certified Energy Managers
- 8 LEED® Accredited Professionals
- 4 Certified Measurement Verification Professionals
- 3 Project Management Professionals
- 2 Building Cx Professionals
- 1 Building Enclosure Commissioning Process Provider

### COMMISSIONING EXPERIENCE

Total Projects Commissioned: **1,200+**

Total GSF Commissioned: **90+ Million**

Constructed Value of Commissioned Projects: **\$11.5 Billion**

### SELECT ARAMARK COMMISSIONING CLIENTS

- |                                |                                |                               |
|--------------------------------|--------------------------------|-------------------------------|
| ▪ Allegheny Health Network     | ▪ James Madison University     | ▪ Pennsylvania National Guard |
| ▪ Baylor University            | ▪ Maryland Stadium Authority   | ▪ University of Maryland      |
| ▪ City University of New York  | ▪ Metropolitan Museum of Art   | ▪ University of Pittsburgh    |
| ▪ Franklin & Marshall College  | ▪ Mount St. Mary's University  | ▪ University of Pennsylvania  |
| ▪ George Washington University | ▪ Northwood Health System      | ▪ Wellspan Health             |
| ▪ Hershey Medical Center       | ▪ PA Dept. of General Services | ▪ West Liberty University     |
| ▪ Hood College                 | ▪ Penn State University        | ▪ West Virginia University    |



University of Maryland Gossett Performance Center



Fort Indiantown Gap, PA

## RELEVANT PROJECT EXPERIENCE AND REFERENCES

### PLYMOUTH MEETING / HORSHAM READINESS CENTERS PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES

#### LOCATION:

Plymouth Meeting, PA &  
Horsham, PA

#### GROSS SQUARE FEET:

51,000

#### CX SERVICES:

Design Review  
Submittal Reviews  
Site Inspections  
Pre-Fx Checklists  
Functional Testing  
Owner Training

#### CONTACT:

Paul M. Artale, RLA  
717-787-5118  
partale@pa.gov

#### SCHEDULE:

2023-In progress (est. 2025)

The Department of General Services is renovating the Plymouth Meeting Readiness Center and Plymouth Meeting Annex and Building 350 at the Biddle Air Guard Base in Horsham, PA.

This project consists of three existing buildings to be renovated on two separate campuses approximately 12 miles apart: Plymouth Meeting Readiness Center (PMRC) and Plymouth Meeting Annex (PMA) at 1046 Belvoir Road Plymouth Meeting, PA 19428, and Building 350 on Langley Street at the Biddle Air Guard Base in Horsham, PA 19090.

Functional uses of the Horsham building include administrative, multi-purpose room, training areas, vehicle storage area, and a storage area. Support areas include a locker room and restrooms

The Plymouth Meeting building will include a kitchen area, drill hall & vault areas along with a locker room, restroom, and mechanical room.

The Horsham Building is undergoing equipment start-up and controls commissioning and will be functionally tested in the near future. The Plymouth Meeting Readiness Center is undergoing early construction.

Functional performance testing of the HVAC equipment serving Horsham Building 350 identified the following:

- AHU-1 is running in Auto but not making duct static pressure setpoint of 1.0" w.c. Static pressure reading 0.03" and fan speed locked out at 33%. This has a direct impact on VAV and max airflow cooling control. Recommended final Cx after final AHU balancing.
- ERV-1 does not have a return air duct smoke detector installed but ATC submittals calls for one.
- Freezstat shuts the unit down and dampers close however tied into fire alarm relay (but there is no duct detector). ALC to troubleshoot.
- Return air humidity sensor unreliable, reading a negative value. ALC to troubleshoot.
- Exhaust Fan H-4 ALC is reading 37.4 ppm on CO sensor and 1.8 ppm on NO2 sensor, however, local monitor reads 0.0 for both.





## TOBYHANNA ARMY DEPOT



Tobyhanna Army Depot is a recognized leader in providing World-Class Logistics Support for command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) Systems across the Department of Defense. Tobyhanna's Corporate Philosophy, dedicated workforce and electronics expertise ensure the depot is the Joint C4ISR provider of choice for all branches of the Armed Forces and our industry partners. Tobyhanna's unparalleled capabilities include full-spectrum logistics support for sustainment, overhaul and repair, fabrication and manufacturing, engineering design and development, systems integration, Postproduction Software Support, technology insertion, modification, Foreign Military Sales and Global Field support to our Joint Warfighters.

### LOCATION:

Tobyhanna, PA

### CX SERVICES:

Retro-commissioning of existing HVAC and primary systems, review of control systems replacement, slated for commissioning of new systems

### GROSS SQUARE FEET:

2,400,000

### PROJECT COST:

\$45 Million

### COMPLETION DATE:

2018

### COMMISSIONING SUCCESS:

As part of a Honeywell performance contract, Aramark was contracted to retro commission all existing air handlers, chilled water systems, and hot water systems that were scheduled for replacement and control system upgrades throughout the facility. This included over 64 roof top and air handling units throughout the campus. The intent of this effort was threefold including:

- Establishing a baseline of the existing unit performance and capabilities to verify that replacement units and control systems meet or exceed the performance of the replaced/upgraded units
- Developing a sequence of operations of all of the existing equipment to ensure that the new control systems match the existing control schemes
- Developing a deficiency list of all components that were not operational that were slated for reuse in the controls upgrade.

Aramark also subcontracted a testing and balancing agency to provide a certified air balance report of all supply airflows of the existing units. This was to verify that the new units provide at least the same airflow.

The greatest challenge to this project was the timeframe of the effort. Honeywell contacted Aramark in March 2018 and only contracted with us in early April 2018. The effort had to be completed prior to mid-May of 2018 leaving only a month of time to complete the project. Aramark dispatched two teams of two commissioning agents and a team of two certified balancers that spent close to a month onsite completing the effort. In addition to the timeframe, the logistics of site access, locations of the units (spread out over 2.4M GSF) and the weather in the Poconos (several feet of rooftop snow) made completing this task monumental. Only Aramark had the expertise and manpower to get this completed in the timeframe necessary.



**DANVILLE MAINTENANCE SHOP  
PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES**

Currently, there are two functionally obsolete facilities that do not have the necessary components, including a dedicated shop space for tools, parts, classrooms, or electronics repair. In addition, they do not have appropriate administrative space or offices for the supervisors, attendants, or production controllers.

To rectify this, PADGS will construct a 38,000 square foot National Guard Vehicle Maintenance Shop on an undeveloped site to support maintenance and repair of ground vehicles and equipment for the PAARNG.

As this is an FY2025 Military Construction funded project, construction must begin in fiscal year 2025. The facility will be modeled after several other recent facilities that were constructed. The facility will be built on state land and will support the critical mission.

**CONTACT:**

Paul M. Artale, RLA  
717-787-5118  
partale@pa.gov

**GROSS SQUARE FEET:**  
38,000

**CX SERVICES:**

Design Review  
Installation Inspections  
Performance Verification  
Operations Training

**SCHEDULE:**

December 2023-In progress  
Est. 2027 Finish Date

**SYSTEMS COMMISSIONED:**

- Building Assembly Systems including Building Shell, Exterior Wall Assemblies, and Roof Assemblies.
- Protective Systems including Fire Suppression and Fire Alarm Systems particularly as they interface with the HVAC system.
- Plumbing Systems including Domestic Hot Water Systems.
- Heating, Ventilating, Air Conditioning and Refrigeration Systems (HVAC) including Heat Generation, Refrigeration, Ventilation, and HVAC Control Systems.
- Electrical Systems including Power Distribution, Lighting, and Controls, and Emergency Generator Systems.
- Communications Systems including Voice/Data and Sound/Video Systems.
- Electronic Safety and Security Systems including Security, Alarm, and Detection Systems.



Aramark was awarded this project and has performed design reviews ahead of the 2025 construction start. Some of the issues identified include the following:

- Proper access panels must be provided near the VAV boxes for accessibility purposes. Positioning of Lighting equipment is also crucial.
- GPM for Unit heater schedules need verification.
- Diffuser, register, grille schedule needs to be filled.
- EF-5,6 missing on the roof plan.
- Janitor Closet missing exhaust CFM or exhaust ductwork for EF-6.
- Men's and women's restroom Supply and return CFM needs to be verified to provide adequate negative air pressure for restrooms.

**PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES  
QUEHANNA MOTIVATIONAL BOOT CAMP - BUILDING D ADDITION**

This project includes the construction of single story, approximately 12,000 square feet of a New Addition to existing Building D at the Quehanna Motivational Boot Camp for the Pennsylvania Department of Corrections. The new building addition will consist of public lobby area, administration offices, multipurpose hall, visitation hall, and services spaces.

The one-floor building will include one RTU, several wall heaters, and electrical and plumbing systems. The project is currently in the beginning stages.

The systems and equipment to be commissioned are:

- Protective Systems including Fire Suppression and Fire Alarm Systems.
- Plumbing Systems including Domestic Hot Water Systems.
- Heating, Ventilating, Air Conditioning and Refrigeration Systems (HVAC) including Heat Generation, Refrigeration, Ventilation, and HVAC Control Systems.
- Electrical Systems including Power Distribution, Lighting, and Controls, and Emergency Generator Systems.
- Communications Systems including Voice/Data and Sound/Video Systems.
- Electronic Safety and Security Systems including Security, Alarm, and Detection Systems.

This project is currently finishing construction installation. Some of the issues identified include:

- Spare conduits are blocking access to the VAV power/control panels. Coordination required to maintain access.
- A wire support for the suspended ceiling grid was observed to be preventing 90° opening of the VAV doors in the Training Room 129.
- VAVs are observed to be installed without gasketed bottom side access doors.
- Victaulic sprinkler head hoses are not being installed in accordance of FM Global requirements as required in the specs. Hoses installed per FM are required to have a 7" bend radius and are limited on number of 90-degree bends based on length of hose. Most hoses installed to date need to be reworked to meet requirements. Issue applies throughout project as necessary.

**LOCATION:**  
Karthaus, PA

**GROSS SQUARE FEET:**  
12,000

**CONSTRUCTION COST:**  
\$4.85 Million

**CX SERVICES:**  
Submittals Review  
Installation Inspections  
Performance Verification  
Operations Training

**CONTACT:**  
Daniel S. Hemphill  
Project Coordinator  
717-678-3759

**SCHEDULE:**  
2023-In progress (est. 2024)



## ARAMARK HISTORY WITH THE PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES - READINESS CENTER EXPERIENCE

In 2005, Aramark was selected as a pre-qualified commissioning provider for various projects administered by the Pennsylvania Department of General Services (PADGS). Since that time, we have been selected for over 52 projects within this system. Projects range from state correctional institutions to higher education facilities to combined readiness centers throughout the state.



Most applicable to this response, we have compiled some stories of commissioning success for our combined readiness center projects throughout Pennsylvania.

### *Stryker Brigade National Guard Combined Readiness Center & Field Maintenance Shop at Easton, PA - 60K GSF, \$21.3M*

The readiness center combines soldiers from Troop B, 2nd Squadron, 104th Cavalry formerly from Wilson Borough and Company A, 228th Brigade Support Battalion and Field Maintenance Shop 27 from Bethlehem. In July of 2010, Aramark completed commissioning services with a return on investment of 1.5 years or 18 months. A high priority issue found during commissioning which we feel provided a large amount of value to the client is associated with the sizing of the building HVAC system. Throughout the project, it was documented that multiple HVAC systems were oversized with average minimum ventilation operating at 45% of total airflow for each air handling unit respectively. After discussions with both the design team and project team, it was concluded to reduce the average minimum ventilation to roughly 20%. This correction helped the client reduce the chance of excessive compressor cycling and increase the efficiency of thermal comfort.

### *Stryker Brigade National Guard Readiness Center at Southampton Road in Philadelphia, PA (Part 1 & 2) - 134K GSF Renovation, \$24.3M*

These facilities serve more than 10 units and organizations in the Pennsylvania National Guard and were built and refurbished at a cost of \$24.2 million. The refurbished readiness center, originally built in 1975, is a 133,938-square-foot facility located on an 18-acre site. It is the largest readiness center in the Pennsylvania National Guard. The new field maintenance shop is a 27,524-square-foot facility with 1,616 square feet of mechanical mezzanines. The new facility combines two old facilities and offers a better workspace to maintain Stryker vehicles.



In May of 2011, Aramark completed commissioning services for with a return on investment of 3 years or 36 months. A good example of a high priority issue identified which we feel provided a large amount of value to the client is in regard to the design of the building air handling units. Throughout the project, it was noted that there was no relief ductwork installed for any of the air handling units and, therefore, caused the building to be incapable of returning any airflow during economizer mode. Understanding that this created a large amount of positive pressurization in the building, the units were redesigned and reconfigured to allow for relief airflow during both minimum outside air and economizer conditions.

In April of 2011, Aramark completed commissioning services for phase 2 of this project with a return on investment of 0.2 years or 3 months. Aramark identified an issue associated with sensors used for demand control ventilation at the air handling units. During MEP systems functional testing, it was discovered that



the air handling unit serving the offices areas remained at 100% outside air at all times due to the fact that a CO2 sensor serving one of the spaces downstream was out of calibration. The respective CO2 sensor was reading 1120 ppm which exceeded the setpoint of 1000 ppm at the air handling unit causing the unit to modulate open and control to 100% outside air year-round. Once calibrated, this sensor began to read accurate values and the associated air handling unit began to control to minimum outside air correctly.

*Stryker Brigade National Guard Readiness Center at Coatesville, PA - 30K GSF, \$9.7M*

This Readiness Center is home to Company B, 1st Battalion, 111th Infantry Regiment, which traces its ancestry to the Associated Regiment of Foot, founded by Benjamin Franklin in Philadelphia in November 1747.

In May of 2014, Aramark completed commissioning services with a return on investment of 2.3 years or 27 months. A good example of a high priority issue found is associated with the short cycling of an energy recovery unit. During MEP systems functional testing, it was discovered that the energy recovery unit serving the building air handling units was short cycling due to the fact that it was currently programmed to enable when any of the associated air handling units were commanded to operate in full economizer mode. This programming was in opposition to the design sequence of operations which states that the energy recovery unit is to energize and run continuously while the associated air handling units are operating in occupied mode regardless of economizer operation. Once brought to the attention of the respective contractor, the programming was adjusted and the unit began to operate as designed.



*Stryker Brigade National Guard Field Maintenance Shop at Graterford, PA - 80K GSF \$13.7M*

The Readiness Center program includes offices, assembly, storage, armory vaults, and training/meeting rooms. The maintenance shop program includes unit vehicle service bays, armory vault, training/meeting rooms, and repair areas.

In December of 2010, Aramark completed commissioning services with a return on investment of 2.5 years or 30 months. An example of one high priority issue found during commissioning is associated with the lead/lag operation of the hot water boilers. During MEP systems functional testing, Aramark discovered that there was no call for the lag (back-up) boiler to energize when the lead boiler was simulated as failed. This can cause issues with heating in the future should the lead boiler fail due to internal safeties. The respective contractor corrected this issue once it was brought to their attention and the lag boiler now energizes upon a failure of the lead boiler.

*Stryker Brigade National Guard Readiness Center at Reading, PA - 42K GSF \$5.4M*

Reading is home to Headquarters and Headquarters Troop; 2nd Squadron of the 104th Cavalry. In December of 2009, Aramark completed commissioning services with a return on investment of 1.9 years or 23 months. One high priority issue found that provided a large amount of value to the client is associated with the placement of the high static pressure cutout on one of the rooftop units. During MEP systems functional testing, it was discovered that the high static pressure cutout, used to disable the unit supply fan when discharge pressure within the fan chamber exceeds operational limitations, was installed upstream of the fan in the suction section of the unit. This means that this safety switch would never initiate due to the fact that it needed to be installed on the discharge section (positive side) as opposed to the suction section (negative side) of the supply fan. Once this issue was relayed to the respective

contractor, the correction was made and the safety was installed within the correct section of the rooftop unit.

*Stryker Brigade National Guard Combined Readiness Center and Field Maintenance Shop at Hazleton, PA - 26.3K GSF \$5.1M*

With over 20K GSF of additions including offices, classrooms, and unit storage and maintenance facilities, the former Hazleton Armory was transformed into a state-of-the-art military facility. Housing Troop 2-104th Cavalry Unit of the Stryker Combat Team, the Hazleton Readiness Center provides the regional offices and recruiting center for the Guard Unit along with an assembly hall and kitchen amenities.



In February of 2011, Aramark completed commissioning services with a return on investment of 2.3 years or 28 months. A high priority issue found that provided value to the client is associated with economizer programming of the air handling units. During MEP systems functional testing, Aramark discovered that the air handling units remained in full economizer mode (100% outside air) when outside air enthalpy exceeded return air enthalpy by a greater amount than what was written in the sequence of operations. This can cause the spaces downstream served by each unit to have issues maintaining comfortable conditions; however, this was not the case after the issue was corrected by the respective contractor prior to occupancy of the building.

*Stryker Brigade National Guard Readiness Center at Honesdale, PA - 29.5K GSF, \$8M*



This Readiness Center is the home of Company A, 1st Battalion, 109th Infantry Regiment and is located at 232 Tryon Street in Honesdale. The facility was completed in 1977 and was expanded from 19,668 square to the current 29,534 square feet. The additional 9,866 square footage is designed to house offices, classroom, simulation centers, and miscellaneous multipurpose spaces.

In July of 2013, Aramark completed commissioning services with a return on investment of 1.2 years or 14 months. A high priority issue found was associated with leakage within the boiler flue ductwork. During a construction site inspection, it was observed that, after the manufacturer's start-up of the boilers, there was corrosion of the boiler flue ductwork. Upon investigation from the respective contractor, it was discovered that the corrosion was due to leakage within the interior flue duct caused by fire gaskets which were not sealed properly. The contractor immediately corrected the issue and no further corrosion was created.

## ARAMARK AND PADGS

Aramark and PADGS maintain an active partnership. Currently, we are working on a few readiness centers that are in various stages of construction. These include:

- Carlisle Readiness Center
- Friedens Readiness Center
- Wiles-Barre Readiness Center

Other active projects for PADGS include:

- Bucks County New Maintenance Facility
- California University Science Building Construction
- Danville Field Maintenance Bldg. - Construct New Maintenance Shop
- District 9 Blair County Offices Renovation and Expansion
- FTIG New Youth Challenge Admin Bldg.
- Hollidaysburg Veterans Home
- Kutztown University DeFrancesco Education Bldg. Reno - Phase 1 and 2
- Kutztown University Poplar Renovations
- North Central STU - HVAC Upgrades
- Norristown State Hospital - New Forensic Building
- PA State Museum & PHMC Tower - Infrastructure Upgrades and Renovations
- PA State Police Academy - Core Bldgs., BESO & Sitework
- Plymouth Meeting - Horsham Readiness Center - Rehabilitation
- Quehanna Motivational Boot Camp - Renovations to Building D
- Railroad Museum
- SCI Benner Township
- SCI Forest - Upgrade/Replace PLC & Microlite System & BAS Upgrade
- SCI Greene - CUP Upgrade
- Shippensburg University Franklin Science Center
- Southwestern Veterans' Center





## ARAMARK'S UNIQUE QUALIFICATIONS

Aramark, as a whole, is a diversified service organization, and in addition to commissioning services, one of our largest divisions is operations and maintenance. Unlike engineering firms that perform commissioning, we have a dedication to our clients that focuses on the ability to operate and maintain the new facility. A large amount of our service provision includes an emphasis on training along with complete and accurate operations and maintenance documentation allowing for a seamless transition from construction to operations. This has been greatly enhanced through BIM coordination and its integration into the commissioning process.

Unlike many of our competitors, we are not considered clipboard commissioning agents and frequently get “dirty” as part of the commissioning process. We are one of the few firms remaining that **PERFORMS** functional testing of the equipment. We are able and prefer to do this in lieu of having the contractor demonstrate the function of the equipment. This benefits our clients in two ways. The first of which is the cost savings of contractor participation in the functional testing process as we specify the expected hours for participation within the commissioning specifications. An additional benefit is that due to the expertise we have on our team, we are able to find issues that could easily be covered up by a quick-thinking software programmer. We have the proper tools available and the temperature control system skills to navigate through not only the graphics, but the logic as well. On many occasions, logic review during the commissioning process has uncovered problems prior to physically testing the equipment.



Another frequent complaint avoided by the Aramark commissioning process is the number of open issues left after the final commissioning report has been provided. Many commissioning agents either do not have the funds remaining to assist in corrective resolution or do not have the experience and broad knowledge base to provide suggestive corrective measures. Through frequent commissioning meetings, as well as elevation of significant commissioning issues during attendance of meetings, we are proactive in keeping issues at the forefront of the commissioning team. We also remain available for the lingering issues and try to bring all issues to resolution. Again, this makes the operation and maintenance of the building a smooth transition with limited to no inheritance of issues.

Throughout the commissioning process, we are continually focused on the true operational energy efficiency of the system. As an advocate of the owner, we are interested in the system life cycle cost. We often find that design engineers are very capable of selecting the highest peak-efficiency equipment; however, with the lack of operational experience, they often readily admit that their expertise does not extend into the system operational requirements established by the sequence of operations. This is where we “bridge the gap” and provide input to design and construction teams that will result in a building that operates optimally throughout the year and can be readily maintained by the campus operations team.

## 2. PROJECT TEAM AND QUALIFICATIONS

All of Aramark's engagements rely on our experienced professional staff to function as the catalyst for the success of the overall program. Our staffing strategy for managing this relationship expertly and efficiently is straightforward:

- Provide the West Virginia Army National Guard, with a qualified commissioning agent to lead the overall program and serve as the primary contact person.
- Support the West Virginia Army National Guard, with a *local* core technical team comprised of individuals with the requisite technical experience and skill sets.
- Provide experienced "quality assurance" resources to verify that the highest level of quality services is provided.



The success of our approach has always been the quality and consistency of our senior leadership as well as the professionals that comprise the local core technical team. The organizational chart below illustrates the proposed team for this engagement. Complete professional biographies for these individuals begin on the following page.

Although the proposed staff will have primary responsibility for the proposed engagement, any of the more than 85 technical professionals within the Engineering Solutions group will be made available to the West Virginia Army National Guard, if their skills, expertise and/or availability will add incremental value to this engagement.

<p><b>QUALITY CONTROL</b> Chris Skalski, P.E., BCxP</p> <ul style="list-style-type: none"> <li>▪ 21 years' experience</li> <li>▪ Professional Engineer (PA)</li> <li>▪ LEED AP</li> <li>▪ Building Cx Professional</li> <li>▪ 21 years with Aramark</li> </ul>	<p><b>PROJECT MANAGER</b> Frank Snyder, Jr., P.E., CxA</p> <ul style="list-style-type: none"> <li>▪ 37 years' experience</li> <li>▪ Professional Engineer</li> <li>▪ Certified Cx Agent</li> <li>▪ 1.5 Years with Aramark</li> </ul>	<p><b>MECHANICAL SYSTEMS</b> Allison Bailey, P.E.</p> <ul style="list-style-type: none"> <li>▪ 28 years' experience</li> <li>▪ Mechanical Engineer</li> <li>▪ Professional Engineer</li> <li>▪ 16 years with Aramark</li> </ul>
<p><b>ELECTRICAL SYSTEMS</b> Jacob Rourke</p> <ul style="list-style-type: none"> <li>▪ 7 years' experience</li> <li>▪ Energy Engineer</li> <li>▪ NABCEP PVA Certified</li> <li>▪ .75 years with Aramark</li> </ul>	<p><b>MECHANICAL SYSTEMS</b> Manas Vaidya</p> <ul style="list-style-type: none"> <li>▪ 10 years' experience</li> <li>▪ Mechanical Engineer</li> <li>▪ Six Sigma Green Belt</li> <li>▪ 1.5 Years with Aramark</li> </ul>	<p><b>MECHANICAL SYSTEMS</b> Tim Russ</p> <ul style="list-style-type: none"> <li>▪ 24 years' experience</li> <li>▪ Systems Engineering</li> <li>▪ Edge Certified</li> <li>▪ .8 years with Aramark</li> </ul>

Please note that these individuals will be part of the project team from the design phase through the completion of the project, allowing for team coordination and synergy.

## BIOGRAPHIES

### FRANK SNYDER, JR.

Cx Specialist  
Aramark Engineering  
Solutions

## EDUCATION

Penn State University  
Bachelor of Science  
Mechanical Engineering  
Technology

Penn State University  
Associate of Arts Degree  
Mechanical Engineering  
Technology

## CERTIFICATIONS

Professional Engineer (PE)  
(AZ, CA, CO, DC, DE, IL, MA,  
MD, NC, NH, NJ, NM, NV, NY,  
PA, VA, UT, and WV)

USGBC LEED AP BD+C

Certified Commissioning  
Agent (CxA), AABC / ACG

Energy Management  
Professional (EMP), AABC /  
ACG

OSHA 10

Mr. Snyder has more than 37 years' experience including building commissioning, sustainable design consulting, and mechanical, electrical and fire protection engineering services. His typical project responsibilities include planning, scheduling, conducting, and coordinating all phases of facility related MEP/FP system design and commissioning work.

Frank is currently providing commissioning services to multiple healthcare and higher education clients in the Northeast and Mid-Atlantic areas, including Hershey Medical Center, Shippensburg University, University of Maryland, and WellSpan Health.

## BUILDING COMMISSIONING EXPERIENCE:

Hershey Medical Center

- 3rd Floor Main Hospital & South Addition Patient Units
- Comparative Medical Facility
- AC 10&11 Replacement

Manheim Central High School

PADGS

- Danville Field Maintenance Building
- Shippensburg University - Franklin Science Center
- State Museum and PHMC Tower

Penn State Health - Hampden Cancer Center

Tulpehocken Jr./Sr. High School

University of Maryland

- Stanley Zupnik Engineering Hall
- Barry Gossett Basketball Facility

WellSpan Health -

- Gettysburg AHU-12 Replacement
- Gettysburg CHW Plant Renovations
- Gettysburg Pharmacy Renovation

York Hospital

- SCCT Expansion
- Central Utility Plant, CHW Plant



**ALLISON BAILEY, P.E.**

Senior Manager  
Aramark Engineering  
Solutions

**TOTAL GSF  
COMMISSIONED**

10 Million

**TOTAL COMMISSIONING  
PROJECTS**

56

**EDUCATION**

Ohio State University  
Bachelor of Science  
Mechanical Engineering

**CERTIFICATIONS**

Professional Engineer  
(States of KY, OH, WV)

OSHA 10

Expression of Interest for the West Virginia Army National Guard  
Martinsburg Readiness Center Addition Project

Ms. Bailey is a mechanical engineer who possesses more than 28 years of experience in HVAC design, DDC control programming, HVAC system troubleshooting, project management, and project coordination.

On behalf of Aramark, Ms. Bailey is a member of our building commissioning team, providing commissioning services for various educational institutions throughout the U.S., including Ohio State University, Baylor University, University of Kentucky, Oberlin College, Edinboro University, Millikin University, and the University of Pittsburgh. Currently, Allison supports commissioning programs throughout the region and is involved in all design reviews as the design lead and mechanical systems reviewer. She is also project manager for the new Twin Valley Behavioral Health Hospital in central Ohio. Allison performs over 40 design reviews per year and has most recently reviewed multiple projects for Nemours, renovations at M&T Bank Stadium and various other projects for Penn State University.

Prior to joining Aramark, Ms. Bailey worked as a mechanical engineer for MKC Associates where she was a project engineer for HVAC systems for new and existing buildings with an HVAC construction budget ranging from \$1K - \$5.6M. She was responsible for meeting with clients to present design ideas and to discuss system expectations. She was responsible for the coordination of HVAC systems design with all disciplines, including architectural, structural, electrical, plumbing, and technology. Ms. Bailey was also responsible for the installation, maintenance, and upgrade of HVAC computer software. She completed projects on time and under budget.

**COMMISSIONING AGENT EXPERIENCE:**

**Baylor University**

- McLane Football Stadium - \$260M, 860K GSF on 93 Acres Williams Soccer
- Rosenbalm Fountain
- Penland Dormitory - \$19M, 96K GSF
- Hankamer Cashion - \$26M, 164K GSF
- Foster Business School - \$100M, 275K GSF

Children's Hospital of Pittsburgh - John G. Rangos Research Ctr. - \$150M, 250K GSF

M&T Bank Stadium Renovations - \$430M, 300+K GSF

**The Ohio State University**

- South High Rise - Renovations/Additions - \$172M, 583K GSF
- Biomedical Research Tower - \$36M, 100K GSF

University of Kentucky - 90 Dining - \$32M, 80K GSF

Twin Valley Behavioral Healthcare - \$88.7M, 285K GSF

**University of Pittsburgh**

- Benedum Hall - LEED Registered - \$40M, 180K GSF
- Medical Center - Clinical and Research - \$17M, 30K GSF

New York State Office of Mental Health South Beach Psychiatric Center

**JACOB ROURKE**

Engineering Manager  
Aramark Engineering  
Solutions

**TOTAL NUMBER OF  
PROJECTS**

20+

**TOTAL GSF  
COMMISSIONED**

1 Million+

**EDUCATION**

Penn State University  
Bachelor of Science  
Energy Engineering

**CERTIFICATIONS**

NABCEP PVA

OSHA 10

Mr. Rourke brings seven years of experience in supporting electrical design, commissioning, and construction for commercial, pharmaceutical, and industrial sectors. On behalf of Aramark, Jacob is a member of our building commissioning team where he supports clients primarily in our East Region.

Prior to Aramark, he worked as an Electrical Engineer for Barton Associates where he supported the design of low and medium voltage distribution and specialty systems, including but not limited to solar, power generation, utility interconnections, and life safety. He performed site inspections and construction coordination, as well as advising clients on alternative energy and systems options available to them including federal and local incentives.

Prior to Mr. Rourke's tenure with Barton Associates he was an Electrical Engineer for Genesis Engineering. He supported pharmaceutical and healthcare facilities where he designed low voltage electrical and specialty systems. Mr. Rourke was also responsible for power, life safety systems, telecommunications, and lighting concept design.

**COMMISSIONING AGENT AND DESIGN REVIEW EXPERIENCE:**

**Penn State University**

- College of Engineering, West 1
- Susan Welsh Liberal Arts Building
- Nursing Building
- Harrisburg ALC & Chiller Plant

**Penn State Health**

- Chiller 8&9
- AC-10 & 11

**Nemours Children's Health**

- 5W Moseley Institute Inpatient Unit
- 3CE Moseley Institute Outpatient Unit
- Administration & Research Building MEP systems upgrade

**UPENN**

- Amy Guthman Hall
- College Hall

**York Wellspan Hospital**

**PADGS Holidaysburg Veterans Home**

**University of Maryland**

- Barry Gossett Basketball Facility
- Stanley Zupnik Hall

**MANAS VAIDYA**

Cx Manager  
Aramark Engineering  
Solutions

**EDUCATION**

Lamar University  
Master of Engineering  
Industrial Engineering

Rajiv Gandhi Technical  
University, India  
Bachelor of Engineering  
Mechanical Engineering

**CERTIFICATIONS**

Certified Six Sigma Green  
Belt Professional

Expression of Interest for the West Virginia Army National Guard  
Martinsburg Readiness Center Addition Project

Mr. Vaidya is a mechanical and industrial engineer with over ten years' experience. He has a background in plant maintenance engineering, systems analysis, energy management, and BAS/energy management end devices.

On behalf of Aramark, Mr. Vaidya provides professional commissioning services to various clients in the south-central Pennsylvania region.

Prior to Aramark, Mr. Vaidya was most recently a Systems Specialist for Siemens where he performed installation, startup, troubleshooting, commissioning, and repair on computerized temperature control systems which control HVAC equipment such as roof top units, air handlers, VAV boxes, heat pumps, chillers, pumps, cooling towers, boilers, and heat exchangers. As part of this role, he produced reports, provided plans and control system documents, and developed a building automation scope and implementation approach.

**SYSTEMS EXPERIENCE:**

- TAC Vista
- EcoStruxure
- Desigo
- Insight
- Metasys
- WCIS
- Apogee Commissioning

**SELECT COMMISSIONING AGENT EXPERIENCE:**

M&T Bank Stadium Renovations - \$430M, 300+K GSF

**PADGS:**

- Danville Field Maintenance Building - \$19.3M, \$38K GSF
- PA State Museum & PHMC Tower
- SCI Greene CUP Upgrade
- Shippensburg University - Franklin Science Center - \$40.5M, 125K GSF

**PRIOR FIRM EXPERIENCE:**

New Federal Court House, Harrisburg, PA - New Construction  
UPMC Pine Street Williamsport, PA - Renovation  
Lewisburg School District Multiple Buildings, Lewisburg PA - Renovation  
Liberty Valley Intermediate School, Danville, PA - Renovation  
Northeastern Senior High School, Manchester PA - Renovation  
Warwick School District, Lititz, PA - Multiple projects including Field House (New Construction), Database and Device Migration  
Lampeter School District, Lancaster, PA - Multiple Buildings - Renovation  
Mennonite Home, Lancaster PA - Renovation  
Loyalsock Middle School, Williamsport, PA - New Construction  
WellSpan Hospital, York, PA - Multiple Projects  
Pequea Valley School District Salisbury Elementary School, Gap, PA - Renovation



**TIM RUSS**

Cx Manager  
Aramark Engineering  
Solutions

**YEARS OF EXPERIENCE**

24

**EDUCATION**

Milwaukee School of  
Engineering  
Systems Engineering Edge  
Certification

NJATC Electrical  
Apprenticeship

**CERTIFICATIONS**

OSHA 30

Mr. Russ is a seasoned professional with more than 24 years' experience in temperature controls, fire alarm systems, access controls, smoke control systems, customer service and financial management. He has been recognized for an exceptional record in process improvement and supervising programs/projects in a high-pressure environment under limited time constraints.

Regarding smoke zone testing, Tim has installed many FSCS, including Stairway Pressurization and Smoke Purge systems. Additionally, he has installed these systems on both BMS and a Notifier 3030 FACP system.

Prior to Aramark, Mr. Russ was a Sr. System Specialist where he was responsible for performing complex installation, startup, and commissioning of building automation system equipment that had been newly installed. In addition, he developed building automation for improved occupant comfort, efficient operation of building systems, reduction in energy consumption and operating costs, and improved life cycle of utilities; verified complex system database and programming operations to ensure consistency with the scope of work and sequence of operations; diagnosed and repaired complex control system malfunctions, as well as serving as a subject matter expert.

**SOFTWARE EXPERIENCE:**

Visio and AutoCAD, Microsoft (Outlook, Office, PowerPoint, Word, Access and Excel), SQL Server, Dot NET, SharePoint Portal Server, Johnson Controls Metasys, SCT, CCT, GGT, Tridium Niagara, Schneider Electric EcoStructure, Notifier by Honeywell, FieldServer Technologies, ABT software, Desigo, Datamate and Insight.

**COMMISSIONING AGENT AND DESIGN REVIEW EXPERIENCE:**

M&T Bank Stadium Renovations

PADGS:

- Shippensburg Franklin Science Center
- State Museum and PHMC Tower
- PA State Police Academy

Hershey Medical Center - Comparative Medical Facility (CMF)

Manheim Central High School

WellSpan Health:

- Gettysburg Hospital - AHU-12 Replacement
- Waynesboro Hospital - Pharmacy Renovation
- Adams Health Clinic - LINAC
- York Hospital - IR Lab Phase 1

**CHRIS SKALSKI, P.E., LEED  
AP, BCxP**

Sr. Manager, Commissioning  
Aramark Engineering  
Solutions

**TOTAL GSF  
COMMISSIONED**

8 Million

**TOTAL COMMISSIONING  
PROJECTS**

60 Project Manager  
50 Cx Agent

**EDUCATION**

Pennsylvania State University  
Bachelor of Science  
Mechanical Engineering

Bloomsburg University  
Bachelor of Arts  
Physics

**CERTIFICATIONS**

Professional Engineer  
(State of PA)

LEED Accredited Professional

Building Commissioning  
Professional

OSHA 10

Mr. Skalski is a Professional Engineer and LEED Accredited Professional with 21 years of experience as a building commissioning agent, including extensive experience in HVAC and Plumbing systems design, building automation, and DDC systems. On behalf of Aramark, Mr. Skalski is the commissioning team leader for several of Aramark's higher education and healthcare clients. His responsibilities include engineering design reviews, installation quality assurance, pre-functional/performance testing, initiation of corrective actions, and operator training.

Mr. Skalski previously served as the commissioning team leader for such LEED projects as University of Pennsylvania Stemmler Laboratory Renovations, Neural and Behavioral Sciences Building, Horticulture Center at the Morris Arboretum, Aramark Headquarters Tenant Improvement, Neumann University Center for Sport, Spirituality and Character Development, Pennsylvania State University (PSU) CBEI Navy Yard Building 661, 7R, PSU Berks campus classroom laboratory building, and Franklin and Marshall College New College House dormitories.

Additionally, Mr. Skalski serves as a member of our facility condition assessment team focusing on HVAC and control systems. His experience includes participating in strategic master plans for campus utilities at various higher education institutions.

**COMMISSIONING PROJECT MANAGER EXPERIENCE:**

Aramark Headquarters Tenant Improvement 2400 Market Street, Philadelphia, PA 19103 Core and Shell - \$100M, 280K GSF

Air Products Global Headquarters, Allentown, PA - Administration building, Research & Development Building, Central Utility Plant, Parking Garage - \$300M+, 700K+ GSF

Bloomsburg University - Hartline Science Center Renovation - \$8M, 73K GSF

M&T Bank Stadium Renovations - \$430M, 300+K GSF

Nemours Children's Health

- ARB Mechanical and Electrical Concept
- Malvern Specialty Center, 77K GSF
- Emergency Department Behavioral Health Rooms - \$8.5M, 2K GSF
- 5W Moseley Institute Inpatient (in Design) - 28K GSF
- 3CE Moseley Institute Outpatient (in Design) - 20K GSF

PA DGS - West Chester University

- Mitchell Hall Renovation - \$8M, 38K GSF
- Academic Classroom and Office Complex - \$14.4M, 100K GSF
- Student Recreation Center - \$21M, 72K GS

Penn State University

- School of Arch. and Landscape Design - LEED Gold - \$27M, 111K GSF
- EEB Hub Philadelphia Navy Yard, Building 661, 7R - Pursuing LEED Gold, \$25M, 60k GSF
- Worthington Scranton - Business Classroom - LEED Certified - \$2.5M, 9K GSF

Saint Gobain North American Headquarters Retro-commissioning, Malvern, PA - 286K GSF

### 3. PROJECT UNDERSTANDING AND APPROACH

#### PROJECT UNDERSTANDING

Located at 731 Novak Drive in Martinsburg, WV, the West Virginia Army National Guard, Construction and Facilities Management Office is seeking a commissioning agent (CxA) for the addition of the Martinsburg Readiness Center. The project will be in two phases, with the initial phase for the design portion. Upon funding, the second phase will include construction and post-construction phases.

We will leverage our extensive experience and lessons learned on similar Army National Guard Readiness Center projects to establish and execute a commissioning program that complies with ASHRAE 189.1 Section 10.3.1.2 as outlined below.

#### PROFESSIONAL COMMISSIONING SERVICES - PHASE APPROACH

It is evident that in order to truly assist in the short- and long-term success of this project, our commissioning plan requires a unique and varied blend of technical, operational, and engineering expertise.

The challenges involved in the construction of this project focus around:

1. Project schedule
2. Complex building systems
3. Increased integration of systems and components
4. MEP technical expertise
5. Project turnover and operations expectations

We are familiar with these significant challenges through our extensive commissioning, operations backgrounds, and experience with capital and operation teams. Our focus is to “bridge the gap” between the construction teams, design teams, project management, and operations groups. Our solution to these challenges is to develop and integrate a unique commissioning program that will provide collaboration between teams, verify that the design intent (installation and performance) is met, establish parameters for acceptance of the construction/end users, and integrate turnover/operations smoothly and effectively.

A summary of the solutions is outlined in the following bullets.

- Creating partnerships and leading collaboration within the project and construction teams.
- Providing “on-site” representation to focus and coordinate the commissioning efforts.
- Coordinating and integrating teams of professionals in supporting corrective actions.
- Establishing parameters and testing requirements for system acceptance as opposed to component acceptance.
- Exercising the systems throughout operating ranges, safety, and emergency conditions.

Aramark has a commissioning program specifically geared towards the Martinsburg Readiness Center Addition project. Aramark will work directly for the West Virginia Army National Guard, and provide an unbiased, objective view of the building systems installation, operation, and performance. As part of the owner's building systems commissioning process, Aramark will cooperate with and coordinate all commissioning activities with the project manager, design professionals, construction manager, and contractors. This process is not to take away or reduce the responsibility of the design team or installing contractors, but to provide a finished and fully operational product in accordance with design intent.



Aramark is committed to commissioning this facility to systematically optimize the building and ancillary systems so that they operate efficiently and effectively in accordance with the Owners Project Requirements, and that the facility staff has adequate system documentation, and training. Aramark will ensure that the fundamental systems are calibrated and operating as required to deliver functional and efficient performance.

Aramark will plan, manage, perform, and report on the commissioning activities, utilizing the reporting formats and standardized forms we have created whenever required. We utilize a cloud-based Commissioning Tool, Cx Alloy®. Aramark will upload deliverable reports to Procore® according to a project schedule in coordination with the Construction Team and agreed upon by the Owner. We realize the importance of conducting all commissioning tasks in a transparent manner and involve the building engineering and operations staff at every stage of the commissioning process.

Our scope of services consists of the following focused efforts.

### **DESIGN PHASE**



Past experience has demonstrated that collaboration, communication, and proper planning are the keys to verifying that the commissioning program is fully integrated into the normal design and construction process. This integration process for the program begins very early by initially employing a carefully prepared kick-off meeting, commissioning plan, and schedule that will guide the effort in and around the construction schedule. The commissioning team leader will develop, organize, implement, observe, document, and lead the commissioning effort in a manner that furthers the success of the project. This effort will not only minimize the impact on project schedule, but also promote efficient system startup and turnover. A summary of activities in this phase consists of:

- **Owners Project Requirements** - Review the OPR document to ensure it captures the needs of the Facility. Provide comments as necessary to Owner and Design Team.
- **Design Review** - Review plans and specifications for conformance with Owners Project Requirements and Basis of Design documentation. Provide comments as necessary to Owner and Design Team and review as necessary.
- **Commissioning Specifications** - Prepare commissioning specifications for mechanical, electrical, and plumbing systems and provide to Design Team and Owner for inclusion in Project Manual.
- **Commissioning Plan** - Develop the commissioning plan in accordance with ASHRAE 189.1 Section 10.3.1.2 that outlines the process, schedule, organization, responsibilities, lines of communication, and documentation requirements of the commissioning process. Submit to the Owner and Design Team for acceptance.
- **Commissioning Kick-off Meeting** - Conduct a scoping meeting to present the process, protocols, and responsibilities of the commission agent and each key member of the project team. Discuss the commission plan, coordination, and schedule activities. Hold a pre-balancing meeting to achieve consensus regarding means and methods for TAB. Recommend the TAB provider perform testing of systems that will be tied into the new Patient Care Tower (steam, chilled water e.g.)
- **Developing Scheduling Requirements and Coordination with Contractor** - Aramark will work closely with the contractors to develop equipment startup plans.

### **CONSTRUCTION PHASE**

A pivotal aspect of our commissioning program is enabling team reviews and inspections of the systems in their area of expertise (i.e., mechanical, electrical, and plumbing). Deficiencies and outstanding issues are documented in the commissioning database. The intent of the database is to generate a comprehensive list for the project manager to distribute to the design and construction teams for response and action. Subsequent to each focused inspection, a progress report will be issued detailing the deficiencies, resolution actions, and status of each item. We will maintain a current status for each item on the deficiency list as well as document the resolution actions in final report. The commissioning team leader will act as the point person and bring up issues to the construction and design teams.

- Coordinate and direct the commissioning activities in a logical, sequential, and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties. Update timelines and schedules as required.
- Refine the commissioning plan to outlines the process, schedule, organization, responsibilities, communication protocol, and documentation requirements of the commissioning process.
- Write and distribute pre-functional & functional construction checklists for commissioned equipment/systems within the scope of work to the contractors.
- Perform site visits as needed to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
- Develop an enhanced start-up and initial systems checkout plan with contractors for selected equipment.
- Document, observe, and otherwise approve construction checklist completion, system startup, and testing, adjusting and balancing by reviewing completed checklists and reports, spot testing and by site observation.
- Perform and document manual functional performance tests with support by installing contractors. Coordinate retesting as necessary until satisfactory performance has been achieved.
- Maintain a master issues log and a separate record of functional testing. Report all issues as they occur directly to the Owner's Representative. Provide directly to the Owners Representative written progress reports and test results with recommended actions.
- Review and approve warranties and O&M manuals for commissioned equipment and be available for and participate in training of commissioned equipment to ensure that Owner understands their responsibilities and is capable of operating the equipment.
- Compile a commissioning Record, which shall include:
  - Complete a preliminary report after the functional process and a final report after the completion of the warranty/acceptance phase.
  - A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report should contain the disposition of the CxA regarding the adequacy of the equipment and documentation meeting the contract documents in the following areas: Equipment conforming with the specifications, equipment installation, functional performance and efficiency and equipment documentation.
  - All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc.

shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.

- Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start-up reports, functional tests, and trend log analysis.
- Provide the Commissioning Record to the Owner.

#### SYSTEMS TO BE COMMISSIONED

- Heating Ventilation and Air Conditioning (HVAC), Automatic Temperature Controls
- Electrical: Lighting & Lighting Controls
- Plumbing: Domestic Hot water





## CLARIFICATIONS

- Aramark's professional staff will be "hands-on", assisting on all performance verification tests with the subcontractor. We will have our own test equipment, such as data logger, voltage meters, and flow hoods available as needed. Aramark will provide all equipment and supplies necessary to perform its commissioning duties.
- Aramark anticipates the assistance of the operations personnel and construction personnel to provide access and cooperation throughout the testing procedures. Aramark assumes systems' FPTs will be conducted prior to substantial completion and while the building is unoccupied by the owner. In the event the systems' FPTs are needed to be conducted while the building is occupied, we assume testing will be conducted during the evening, night, and/or on weekends. In this event, Aramark reserves the right to negotiate additional fees for premium time differential.
- Our Base Scope of Work for Commissioning services is based on assumptions made at the time of the proposal based on the provided RFP documentation. In the event that the final design and associated commissioning scope and/or schedule materially vary from our assumptions identified above, or additional services are requested by the client, Aramark reserves the right to request an adjustment in fees.
- Aramark Management Services Limited Partnership ("Aramark") is excited by the privileged prospect of providing Commissioning Services for the West Virginia Army National Guard, Construction and Facilities Management Officer ("Client"). In the development of every partnership, there are topics of a legal and contractual nature that warrant discussion and clarification by all parties, and Aramark respectfully reserves the right to negotiate the terms and conditions of any resulting agreement. In the event that Aramark is the successful bidder, we look forward to working closely with the Client to finalize in an expeditious manner a mutually beneficial agreement reflecting the final, agreed-upon business arrangement.

