

Barton Associates, Inc. - Consulting Engineers
An Employee Owned Company
York | State College | Pittsburgh
www.ba-inc.com

329 Innovation Boulevard
Suite 112
State College, PA 16803
814 237-2180

April 23, 2021

Mr. Edward Poprick
Director of Physical Plant
State College Area School District
240 Villa Crest Drive
State College, PA 16801

RE: Professional Services Proposal
State College Area School District
Architect/Engineer for Routine Projects
BA Proposal No. P2021150

Dear Ed,

Barton Associates, Inc. is highly interested in providing professional design services for the open-ended contract for routine projects for the State College Area School District. Barton Associates, Inc has been serving over 125 school districts for the past 53 years and will bring our previous experience with both K-12 clients and higher education facilities to deliver projects that will meet the needs and expectations of the State College Area School District.

Barton Education—a division of Barton Associates—is focused on providing mechanical, electrical and plumbing solutions exclusively to education clients and have been since 1968. Our professionals are dedicated to knowing and understanding the current design guidelines, applicable codes and latest technology. Barton tailors each design with precision to offer our clients customized choices, rather than cookie-cutter solutions. Our design solutions are practical, in that even our most elaborate designs are centered on constructability, and they provide continuous long-term benefits to the system's end-users. We are especially proud of the longevity of the systems we design and our client relationships. These five principles inspire Barton to provide exceptional engineering solutions and help us achieve our mission - We Make Buildings Work.

The enclosed proposal highlights the experience of Barton Education's project team, as well as our qualifications to provide engineering services under this contract. We are honored to be among the firms you are considering for your project and we look forward to continuing the relationship we have developed with State College Area School District. We will bring insight and enthusiasm to the project, as well as meet and exceed the goals for the school district. Please feel free to contact me with any questions you may have at 717-817-5850 or rmt@ba-inc.com.

Sincerely,

Barton Associates, Inc.



Roger M. Thies, PE LEED AP
Vice President

We Make Buildings Work. 

WHY BARTON

53 Years' Experience
125+ K-12 Clients
1000+ K-12 Projects

ABOUT US

Barton Education—a division of Barton Associates—has provided quality engineering solutions to more 125 K-12 school districts and completed more than 1,000 projects. Barton approaches each project holistically and systematically to strike the right balance between performance, sustainability, energy efficiency and cost. We engage project stakeholders to gain valuable insights, review existing system documentation then conduct extensive field survey to develop and document an accurate representation of the systems for the district. We have standardized survey procedures and forms to utilize lessons learned as well as expedite the survey process. We then take this information and leverage our extensive experience serving K-12 clients to benchmark and bring industry best practices to provide a complete evaluation of existing conditions and potential from which all future planning will be based. We apply focus, dedication, practicality, precision and longevity to each project we deliver and live by these principles to help us achieve our mission—**We Make Buildings Work.**

Barton Associates, an employee-owned company, provides quality engineering solutions for clients throughout the Mid-Atlantic Region with office locations in York, State College and Pittsburgh, PA. Our team of registered professional engineers, designers, technicians and support staff do more than just design MEP and architectural lighting systems. We offer a holistic approach to any new construction, addition or renovation project ranging from energy studies and facility master planning to systems design and sustainability. Barton considers ways to minimize energy consumption, conserve resources and enhance indoor environmental quality for every project we complete. Energy Conservation is a priority in every design and our staff of professionals are trained, licensed and/or certified to design MEP systems and evaluate the performance of these systems. We also utilize building information modeling for greater team collaboration.

PERSONNEL

68 Total
30 Registered Engineers
20 Designers
7 CADD/BIM Technicians
3 Construction Services
8 Administrative

Whether we are serving as the prime professional or as a sub consultant to an architectural, engineering, contracting, construction management or other professional firm, Barton provides an extensive list of services within various MEP-related disciplines:

SERVICES

- Feasibility Studies, Facility Assessments & Master Planning
- Energy Modeling, Life Cycle Costs & Payback Analysis
- Construction Cost Estimating
- Construction Drawings & Specifications Preparation
- Construction Contract Administration
- Peer Review Services
- Trouble-shooting existing Systems and Components

MECHANICAL SYSTEM DESIGN

- Heating, Ventilation & Air Conditioning
- Plumbing
- Fire Protection
- Central Energy/Utility Plants
- Building Automation Systems

ELECTRICAL SYSTEM DESIGN

- Lighting
- Power Generation & Distribution
- Information Technology
- Fire Alarm & Security

ARCHITECTURAL LIGHTING DESIGN

ADDED VALUE SERVICES

- Building Information Modeling (BIM)
- Sustainable Design
- Energy Analysis & Audits



Barton provided MEP design services for three elementary schools for the State College Area School District.



Please identify the primary point of contact for your firm along with their qualifications (this will be the individual who meets most regularly with the district).



CONTACT INFO

rmt@ba-inc.com

O: 814-237-2180

C: 717-817-5850

ROGER M. THIES, PE, LEED AP PROJECT MANAGER/PRINCIPAL-IN-CHARGE

Pennsylvania State University, Bachelor of Architectural Engineering
Professional Engineer in PA and MD

With more than 26 years of experience in project development, design and execution, Roger has extensive project experience in implementing large multi-faceted design projects and has completed over 450 design and construction projects for the Pennsylvania State University. As Project Manager/Principal-in-Charge, Roger will lead project team meetings and will coordinate schedules and deliverables with the owner and members of the design team to maintain project schedules, deliverables, and budgets.

RELEVANT EXPERIENCE

- State College Area School District - Ferguson Township Elementary
- State College Area School District - Grays Wood Elementary School Addition
- State College Area School District - Mount Nittany Elementary School
- College Township - Municipal Building HVAC Renovation
- Ferguson Township - LEED Gold Public Works Garage
- Governor Mifflin School District - Brecknock Elementary School HVAC Replacement
- Harris Township - Maintenance Facility Feasibility Study
- Juniata County School District - Juniata High School ESCO HVAC Replacement
- Northeastern School District - Orendorf Elementary Renovations
- Northeastern School District - Shallow Brook Intermediate School
- Northeastern School District - Stadium Press Box Addition
- Penn Highlands Healthcare - Huntingdon MEP Study
- Penn State University Park, Pattee Library Knowledge Commons Phases 7-9
- Penn State University Park, Reber Building E-Knowledge Commons
- Valley Grove School District - Rocky Grove High School Kitchen Renovation
- York City School District - Energy Project Renovations for All District Buildings
- York City School District - Ferguson Elementary School
- York City School District - Jackson Elementary School Renovation



Please identify other staff members and/or consultants who you anticipate will have roles in fulfilling the requirements of this appointment.

Barton Education will provide staff members from our State College, PA office to serve the needs of the school district. Our group of dedicated professionals will be led by the firms' directors of mechanical, lighting, and electrical engineering. Please refer to the attached organizational chart that will be members of the team.

Barton Education's approach to sub-consultants:

Barton Education works with a network of local and regional consultants that provide architectural, structural engineering and civil engineering services. Barton believes that to provide the best service to the school district that we would propose several consultants to the school district that are best suited to support the engineering design activities. Upon mutual agreement with the school district after specific service requirements are evaluated, Barton Education would engage the sub-consultant to perform the desired scope of work.

Barton Education would also be open to working with the school district's architectural consultant selected through this process if that is the district's desire.



Roger M. Thies, PE, LEED AP
Vice President
26 Years' Experience



Stephen E. Oskin, PE, LEED AP
Director of Mechanical
Engineering
19 Years' Experience



Jennifer L. Harrington, PE,
LC, LEED AP
Director of Lighting Studio
18 Years' Experience



Phillip J. Pipta
Director of Construction
Services
44 Years' Experience



Richard I. Koval, PE, LEED AP
Director Electrical
Engineering, State College
23 Years' Experience



Kyle J. Courtney, PE
Mechanical Engineer
9 Years' Experience



Dane L. Heimerman,
PE
Mechanical Engineer
10 Years' Experience



Stephen A. Soltis, Jr.,
CPD, LEED AP
Mechanical Designer
21 Years' Experience



Ryan W. Morgan, PE
Mechanical Engineer
9 Years' Experience



Douglas C. Barnhart, PE
Director Mechanical
Engineering, York
24 Years' Experience



Zachary C. Harter, EIT
Mechanical Designer
2 Years' Experience



Jarod F. Stanton, PE,
LEED AP
Senior Mechanical
Engineer
15 Years' Experience



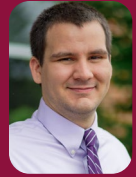
Anthony D. Ludwar,
EIT, LEED AP BD+C
Mechanical Designer
1 Year Experience



Michael W. Lucas, PE
Electrical Engineer
9 Years' Experience



Joseph M. Pawell
Senior Electrical Designer
39 Years' Experience



Joshua D. Lange, EIT
Electrical Designer
4 Years' Experience



Wesley L. Stiles, PE
Director of Electrical
Engineering
17 Years' Experience





Please provide a list of at least 5 representative projects completed within the last 2 years. Include a brief description of the project including the scale of work, the staff involved in delivering the project, the total cost of the project, the final percentage of change orders and the design fee.

Barton Education has provided engineering design services for k-12 clients since we opened in 1968. Our first school districts included Dallastown Area School District and York Suburban School District which we are still currently providing engineering design services to today. We have completed over 1,000 projects to more than 125 k-12 clients including the State College Area School District. The following is list of public and private k-12 clients:

PUBLIC & PRIVATE K-12 CLIENTS

Anne Arundel County
Annville-Cleona School District
Avon Grove School District
Bellefonte Area School District
Bermudian Springs School District
Big Spring School District
Bristol Borough School District
Camp Hill School District
Carlisle Area School District
Central Dauphin School District
Central York School District
Chambersburg Area School District
Coatesville Area School District
Conestoga Valley School District
Conewago Valley School District
Conrad Weiser Area School District
Council Rock School District
Cumberland Valley School District
Cumberland-Perry Area Vo-Tech School
Dallastown Area School District
Daniel Boone Area School District
Danville Area School District
Dauphin County Technical School
Derry Township School District
Dover Area School District
East Lycoming School District
Eastern York School District
Elizabethtown Area School District
Ephrata Area School District
Exeter Township School District
Fairfield Area School District
Forest Area School District
Garnet Valley School District
Gettysburg Area School District
Governor Mifflin School District
Hanover Public School District
Harrisburg School District

Hatboro-Horsham School District
Holderness School
Juniata County School District
Kennett Consolidated School District
Lincoln Intermediate Unit No. 12
Littlestown Area School District
Logos Academy
Lower Merion School District
Manheim Township School District
Middletown Area School District
Mifflin County School District
Millville Area School District
Milton Hershey School
Montour School District
Moon Area School District
Mount Lebanon School District
Moshannon Valley School District
Mount Carmel Area School District
Mount Union Area School District
North Schuylkill School District
Northeastern School District
Northern York County School District
Owen J. Roberts School District
Oxford Area School District
Palmyra Area School District
Panther Valley School District
Penn-Delco School District
Penns Valley Area School District
Phoenixville Area School District
Pottsville School District
Quakertown Community School District
Reading Area School District
Red Clay Consolidated School District
Red Lion Area School District
Ronald H. Brown Charter School
Saint Joseph Catholic School

Shikellamy School District
Shippensburg Area School District
South Eastern School District
South Middleton School District
South Western School District
South Williamsport School District
Southern York County School District
Spring Grove Area School District
State College Area School District
Susquenita School District
The Hill School
The School District of Philadelphia
The Vista School
Solebury School
School District of Lancaster
School District of the City of York
Schuylkill Intermediate Unit 29
Schuylkill Valley School District
Scranton School District
Shenandoah Valley School District
Towanda Area School District
Twin Valley School District
Unionville-Chadds Ford School District
Upper Adams School District
Upper Darby Area School District Valley
Grove School District
Warren County School District
Washington County School District
Waynesboro Area School District
West Shore School District
West York Area School District
Wyomissing Area School District
York County School of Technology
York Suburban School District

HVAC Study

Pennsylvania Leadership Charter School

Multiple Locations, PA

PROJECT DETAILS

Project Area
70,000+ sq. ft.

Construction Cost
N/A

Completion Date
November 2020

Final Change Orders
0%

Design Fee
\$42,300

OWNER

John Ryan
Pennsylvania Leadership
Charter School
610-701-3333

PROJECT TEAM

Roger M. Thies, PE
Jarod F. Stanton, PE
Stephen E. Oskin, PE
Dane L. Heimerman, PE



Barton Education provided engineering services for the Pennsylvania Leadership Charter School at multiple facilities located across the state of Pennsylvania to investigate the facilities HVAC systems to determine if the code required ventilation rates were being provided within the facility. The scope included field surveys, existing document review, analysis of findings and building HVAC load calculations. The result of the study provided recommendations to the charter school to determine the best course of action to provide the code required ventilation airflow rates within their facilities. The end result determined that multiple approaches would be required from system rebalancing to complete system replacements.



Pattee Library Knowledge Commons Phases 7-9

The Pennsylvania State University

University Park, PA

PROJECT DETAILS

Project Area
47,000 sq. ft.

Construction Cost
\$21.7 million

Completion Date
August 2019

Final Change Orders
3.3%

Design Fee
\$323,500

OWNER

Chad Spackman
Penn State University
814-865-9454

AWARDS

2020 Award of Merit &
2020 Section Award for
Architectural Lighting Design,
Philadelphia Illuminating
Society

PROJECT TEAM

Roger M. Thies, PE
Jarod F. Stanton, PE
Stephen E. Oskin, PE
Dane L. Heimerman, PE
Richard Koval, PE
Stephen A. Soltis, Jr.
Jennifer L. Harrington, PE



Barton Education provided mechanical, electrical, plumbing engineering and architectural lighting design services for a 47,000 square-foot renovation that expanded student group study and collaboration spaces, and improved overall accessibility at Pattee Library on the University Park campus. The project included renovations to the entire ground floor west that created the Collaboration Commons. The new area provides students with group study spaces, interactive classrooms and interactive media spaces. The project also included the creation of new office, study and classroom spaces by enclosing the remaining courtyard into an interactive atrium that improves access to all four levels of the library across the west and central sections. The project scope included a complete HVAC system replacement, plumbing, fire protection and electrical system upgrades and replacements. Barton's architectural lighting team worked with the project owner's representatives and architectural team to create custom lighting fixtures to portray the ambience that the Dean of the Library was requesting in the Atrium and collaboration commons. Barton is honored to have received the 2020 Award of Merit as well as the 2020 Section Award for the Architectural Lighting Design on this project from the Philadelphia Illuminating Engineering Society (IES).

Sporting Hills Elementary School

Cumberland Valley School District

Mechanicsburg, PA

PROJECT DETAILS

Project Area
86,000 sq. ft.

Construction Cost
\$3.8 million

Completion Date
September 2019

Final Change Orders
6.4%

Design Fee
\$150,924

OWNER

Jim Koontz
Cumberland Valley
School District
717-697-8261

PROJECT TEAM

Wesley L. Stiles, PE
Douglas C. Barnhart, PE



Barton Education provided prime mechanical, electrical, and plumbing design and construction services for replacement of the existing HVAC systems, lighting, and various building envelope maintenance items for an 86,000 square-foot elementary school. Plumbing upgrades included replacement high-efficiency water heaters and automatic flush valves/faucets in the public restrooms. Mechanical replacement systems included high efficiency hot water boilers, air-cooled chillers, replacement of unit ventilators with variable air volume systems and energy recovery units and active de-humidification controls. Electrical upgrades included LED lighting fixtures and automatic lighting controls.

Barton Education has provided engineering design services for over 45 projects for Cumberland Valley School District since 2005. Projects include HVAC system replacements and chiller replacements in several facilities as well as multiple renovations at the elementary facilities and high school.

Loganville-Springfield Elementary School

Dallastown Area School District

Dallastown, PA

PROJECT DETAILS

Project Area
91,000 sq. ft.

Construction Cost
\$22.6 million

Completion Date
January 2021

Final Change Orders
0.97%

Design Fee
\$7,176,000

OWNER

Kurt Rohrbaugh
Dallastown Area
School District
717-244-4021

PROJECT TEAM

Wesley L. Stiles, PE
Douglas C. Barnhart, PE



Rendering provided by RLPS Architects

Barton Education provided mechanical, electrical and plumbing design services for renovations and an 35,000 square-foot addition to Loganville-Springfield Elementary School for Dallastown Area School District. The project included a complete renovation for the existing 56,000 square foot facility including a full replacement of all MEP systems and equipment as well as the addition of a fire protection system. The building addition included a new secure entrance and administrative suite, cafeteria and full kitchen, gymnasium, service and utility spaces, and additional classrooms. The newly 91,000 square-foot renovated school now houses up to 550 students. The school was originally built in 1952 with a substantial addition constructed in 1970.

Barton Education has provided engineering design services for Dallastown Area School District since 1968. Projects include HVAC system replacements in three elementary schools, stadium renovations, district wide facility assessment, chiller replacements and several other renovation projects.

High School Renovation

Gettysburg Area School District

Gettysburg, PA

PROJECT DETAILS

Project Area
270,000 sq. ft.

Construction Cost
\$16.7 million

Completion Date
Estimated August 2022

Final Change Orders
0.21%

Design Fee
\$1,195,370

OWNER

Belinda Wallen
Gettysburg Area
School District
717-677-7191

PROJECT TEAM

Wesley L. Stiles, PE
Douglas C. Barnhart, PE



Barton Education provided prime engineering and architectural services for the renovations to the Gettysburg Area School District High School. The project was an engineering driven project with a complete renovation of the building's HVAC systems, lighting and lighting control systems, domestic water heating and fire protection systems. The scope of the HVAC system renovation includes replacement of the existing HVAC system with a four-pipe variable air volume air handling system with hydronic control reheat units as well as a complete renovation to the existing building management system. Additionally, bipolar ionization was provided in destratification fans serving high volume public spaces. The scope of the fire protection system included a complete replacement including the building's fire pump. Plumbing scope include the replacement and consolidation of the building's three domestic water plants and piping distribution system. The scope of the Electrical renovation includes replacement of the existing lighting and lighting control systems, replacement of IT infrastructure, a new 300kW gas fired emergency generator and associated transfer/distribution equipment, and power distribution. The building's public address system was also replaced.

Barton Education has provided engineering design services for Gettysburg Area School District since 1772. Projects include multiple renovations through-out the district, boiler replacements, HVAC replacements, system validations, power studies, stadium renovations and security entrance renovations.

Change orders can occur for multiple reasons including but not limited to owner directed changes in scope, unforeseen existing conditions, errors and omissions. Steps can be taken during planning, design and construction phases to mitigate the occurrence of change orders.

Development of an Owner's Project Requirements (OPR) and Basis of Design (BOD) documents is critical in the planning and early design phase. These act as a "vision" for the project and all decisions/actions should be completed in the context of the ultimate goals outlined in these documents. The OPR and BOC must also be adaptable since construction projects can take months or even years from conception to completion. During this time, it is not unusual that this ultimate goal changes over time as stakeholders and external factors force change. Having a resilient OPR and BOD help to mitigate change orders down the road.

Having a collaborative environment with clear communication is essential during the design phase in order to manage and understand expectations. The use of building information modeling (BIM) serves as a vehicle for this communication. It allows for visualization by owners and operators to better understand what the end product will be as well as how it will be maintained. It also facilitates the identification and resolution of clashes between different disciplines (architectural, structural, mechanical, electrical, etc). These clashes can be hard, soft or time based. As an early adopter of BIM, we have honed our skills to clearly communicate the design intent as well as minimize clashes, thereby reducing change orders and construction delays.

Despite the best planning and use of the latest technology, change orders do occur. Those that occur due to owner directed changes and unforeseen conditions are typically addressed as an additional service if they are material in nature. Those that occur due to design professional errors or omissions are addressed without additional cost to the owner for the design or additional cost due to timing of the change order vs. being on the original contract documents.



Please provide a list of 3 to 5 recent references.

Jeffrey Spackman, PE
Project Manager
The Pennsylvania State University
Engineering Services Division
PO Box 30
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814-863-2496/ djs47@psu.edu

Brad Long
Design/Construction Director
Penn Highlands Healthcare
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DuBois, PA 15801
814-371-2200/ bmlong@phhealthcare.org

Dale B. Knepper, Jr., PE
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Gettysburg Area School District
900 Biglerville Road
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Kurt Rohrbaugh
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Dallastown Area School District
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700 New School Lane
Dallastown, PA 17313
717-244-4021/ kurt.rohrbaugh@dallastown.net