



August 25, 2023

Request for Competing Proposal (RFP# RCPS 2023-002)

Roanoke County Public Schools

VOLUME I





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# Executive Summary





Avis and Firstfloor Roanoke have combined forces with Hughes Associates Architects and Engineers and SfL+a Architects to assemble a team that will deliver Design-Build Services for the new Career and Technical Center and renovations of Glen Cove Elementary and W.E. Cundiff Elementary, all while providing the best value to Roanoke County Public Schools (RCPS). The improved student performance and cost savings we propose will leave a lasting positive impact on RCPS for generations to come. Our team will deliver world-class facilities while potentially saving the County approximately \$1,500,000 per year depending on future interest rates.

**QUALIFICATION AND EXPERIENCE:** Our team has collectively designed and/or constructed over 1,000 educational facilities, and that experience will allow us to efficiently make informed decisions about the design and construction of these projects.

- Avis and Hughes recently teamed on two design-build projects for RCPS, the William Byrd High School project and the Cave Spring High School project. See Appendix A (pages 69, 73) for examples.
- Firstfloor and SfL+a Architects have designed 15 “energy positive” schools, most of which were public-private partnerships or design-build projects. See Appendix A (pages 60-64) for examples.
- Firstfloor and SfL+a Architects are currently designing a new CTE Center. See Appendix A (pages 68) for Robeson CTE Center.
- Firstfloor and SfL+a Architects have delivered over 16 comprehensive and CTE high schools with a CTE and workforce development focus. See Appendix A (pages 65-67) for HS examples.
- Our team has delivered over 32 Elementary School projects similar to the ES projects proposed in this RFP. See Appendix A (pages 60, 61, 70, 71, 72) for ES examples.
- Our debt underwriter, Piper Sandler, has underwritten billions of dollars in public school debt around the nation and over 1 billion in PPEA and PPP debt. See Appendix A (pages 74) for project debt offerings.

**PROJECT CHARACTERISTICS:** The facilities we propose will provide best-in-class teaching and learning environments that support RCPS’s innovative C-Change Framework by offering the following:

- Collaboration space: We provide open collaboration space, resource rooms, and special project spaces conveniently located for optimal student utilization and staff monitoring. See Appendix A (pages 61-64) for examples.
- Building as a Teaching Tool: The proposed high-performance buildings will include a student dashboard that will allow teachers to integrate the building’s energy use and generation into the curriculum in every subject if they so choose. If staff is so inclined, we find that an energy-wise club can be beneficial for students interested in architecture, engineering, or construction. Many students at the new CTE Center will likely be interested in using the building as a teaching tool.
- Flexibility: The projects will be designed with a steel frame to provide large open spaces that can be re-arranged as programs change over time.



Roanoke County Public Schools - Cave Spring High School



Roanoke County Public Schools - William Byrd High School



- Providing RCPS with long-term facilities that will serve RCPS for years to come that offer long-term value, ease of maintenance, and reliability.
- Incorporating the C-Change Framework: Our team commends RCPS on the development of the C-Change Framework, and we look forward to working with you to create school environments that foster Deeper Learning.

**PROJECT COST:** We are confident we can deliver your three projects within the \$130,000,000 budget, while providing you with the best value for your money. Below, we have outlined several strategies that will reduce first cost, interest cost, and operating cost significantly:

- We are proposing a project that will allow us to obtain approximately \$2,000,000 - \$4,000,000 in Federal rebates after fees that can be utilized to improve the quality of the building and reduce operating costs. In addition, we will accelerate the design and construction, saving approximately 5% on inflation and general conditions. See pages 71-73 of our Volume II for the project budgets.
- We propose a form of financing that will significantly reduce interest costs over the life of the loan. See Volume II, page 75-81.
- The three schools combined will reduce energy costs by almost \$200,000 in the first year, saving approximately \$25,000,000 over 40 years. See Volume II, page 74.
- We will put the plumbing, mechanical, electrical, and site construction out for public bidding, which should result in a 10-15% reduction in the cost of these scopes. Since these scopes represent approximately 35% of the project cost. This should result in a 3.5%-5.25% reduction in total project cost compared to our competition. These savings are genuine and will be utilized to improve the quality of the building.

**PROJECT BENEFIT AND COMPATABILITY:** These schools are points of pride within their respective communities, and we are committed to working with you to ensure they remain centers of their communities for decades to come by providing the following:

- Working with you to develop a community engagement strategy to ensure the public remains informed about these projects and that support is sustained throughout the life of these projects and beyond.
- Careful consideration of RCPS's 2014 Comprehensive Plan, 2021-2026 Strategic Plan, and C-Change Framework to ensure that each of these school's supports RCPS's Profile of a Graduate by preparing your students with Opportunity Ready skills.
- Attentive review of Roanoke County's 2005 Community Plan, the draft of the Roanoke County 200 Plan, and the Roanoke County Design Handbook to ensure these schools support the community goals and have the maximum positive impact on Roanoke County's residents.



**Public Schools of Robeson County -  
New CTE Center & Planetarium**



We have a proven track record of providing everything mentioned above, and we are confident we can deliver all of these items for you on this project. Our team will deliver these projects in a timely manner and will close the projects out quickly and efficiently.

Please don't hesitate to call Troy Smith anytime on his cell phone (540-798-8653) if you have questions as you review this proposal.

Thank you for your consideration. We look forward to the opportunity to work with you on these aspirational projects that will benefit Roanoke County for generations to come.

Sincerely,

Troy Smith – President  
Avis Construction Company, Inc.  
521 Rutherford Ave NE,  
Roanoke, VA 24016  
(540) 798-8653  
smitht@avisconstruction.com

Robbie Ferris, AIA, REFP, LEED AP - CEO/President  
Firstfloor | SFL+a Architects  
333 Fayetteville St., Ste 225  
Raleigh, NC 27601  
(919) 610-2251  
rferris@sfla.biz

Mike Woolwine, President  
Hughes Associates Architects & Engineers  
656 Elm Avenue, SW  
Roanoke, VA 24016  
(540) 580-6784  
mwoolwine@hughesae.com

Asher McGlothlin, LEED AP BD+C, WELL AP - Project Coordinator  
SfL+a Architects  
333 Fayetteville St., Ste 225  
Raleigh, NC 27601  
(276) 210-4836  
amcglthlin@sfla.biz




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Section 4 - STATEMENT OF NEEDS

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**RESPONSE:** If selected as the successful proposer, the Avis-Firstfloor team intends to enter into a Comprehensive Agreement with Roanoke County Public Schools. This Comprehensive Agreement will include, but not be limited to, those set forth in the Scope of Work for the Project. It is our understanding that the Scope of Work for the Project includes, but is not limited to, the following:

- Project Management and Administration through Project Leadership and overall team coordination
- Interdisciplinary Coordination.
- Codes and Standards review and compliance and to secure final approval from the authorities having jurisdiction, to receive a Building permit and other necessary permits to construct the facility.
- Cost Savings suggestions and Best Value recommendations.
- Project planning and scheduling, maintaining project schedules, and attending weekly progress meetings.
- Cash Flow development and analysis.
- Contract and Construction Documents coordination and providing design documents and specifications to the Owner for approval.
- Public and Private Utility providers coordination and to bring all required services to the project.
- As-built Drawings submission of the completed Project and provision of operations and maintenance manual, owner training, and attic stock materials.

Section 6 - Methodology/Specific Plan: Provide a description of the methodology of the Proposer's design and management processes incorporating an understanding of the goals and criteria of this Project and how the Proposer intends to meet those goals and criteria. Provide a specific plan for providing the services.

- See project schedule in Volume II, pages 40-41.

Section 6.1.1. - An acknowledgement and plan that demonstrates "time is of the essence" in delivering the Project so the facility can begin operating for its intended purpose.

**RESPONSE:** The Avis/Firstfloor team acknowledges that time is of the essence with each of these projects, and our team has carefully created a project schedule that will ensure that these projects are delivered on-time and on-budget. For information about the project schedule we have developed, please see Volume II, page 41.

Section 6.1.2 - Costs - RCPS seeks the best facilities for the best value, understanding that these are long-term facilities that must serve RCPS for years to come, and therefore long-term value, ease of maintenance, and reliability are just as important as initial cost.

**RESPONSE:** The Avis/Firstfloor team has created a budget for each of the three schools utilizing the format outlined in section 6.1.2.1 of the RFP. These budgets can be found in Volume II, pages 71-73. Avis and Hughes have extensive experience in the Roanoke market, as well as with William Byrd High School and Cave Spring High School. Firstfloor and SFL+a Architects designed 15 "energy positive" schools, most of which were public-private partnerships or design-build projects.



Section 6.1.3 – Efficiency and Flexibility – RCPS seeks to construct facilities that will be functionally efficient while providing flexibility to respond to changing needs as they may emerge in the future. It is also important to RCPS that those responding to this solicitation pay attention to the details – the things that make the difference between the facility functioning really well versus acceptably.

**RESPONSE:** The Avis/Firstfloor team is proposing facilities that will provide best-in-class teaching and learning environments that support RCPS’s innovative C-Change Framework by offering the following:

- Collaboration space: We provide open collaboration space, resource rooms, and special project spaces conveniently located for optimal student utilization and staff monitoring. See Appendix A for Project Experience
- Building as a teaching tool: The proposed high-performance buildings will include a student dashboard that will allow teachers to integrate the building’s energy use and generation into the curriculum in every subject if they so choose. If staff is so inclined, we find that an energy-wise club can be beneficial for students interested in architecture, engineering, or construction. Many students at The new CTE Center will likely be interested in using the building as a teaching tool. See Appendix A for Project Experience
- Flexibility: The projects will be designed with a steel frame to provide large open spaces that can be re-arranged as programs change over time. See Appendix A for Project Experience
- Providing RCPS with long-term facilities that will serve RCPS for years to come that offer long-term value, ease of maintenance, and reliability.
- Incorporating the C-Change Framework: Our team commends RCPS on the development of the C-Change Framework, and we look forward to working with you to create school environments that foster Deeper Learning.

If awarded these projects, our team will work with you to develop a strategy for receiving design input from your faculty, staff, and students, to ensure that these facilities are highly functional at supporting their needs, and providing spaces that foster Deeper Learning.

Section 6.1.4 Coordination with RCPS – RCPS seeks a high level of cooperation, communication, and coordination with the Proposer during the course of the project to ensure smooth execution. RCPS will be providing certain equipment, systems, components, and elements of the work and will need to know when these things are required to avoid impacting the project schedule. Coordination will also be required during design and construction to ensure that these items are integrated smoothly with the work to be done by the Proposer.

**RESPONSE:** The Avis/FirstFloor team is committed to working closely with RCPS to provide a high level of cooperation, communication, and coordination. We look forward to working with you to develop a project schedule and timeline that will allow for the seamless installation of equipment, systems, components, and elements of the work, all while ensuring that the projects are delivered on-time and on-budget.

Section 6.1.5 – Project Design – The Proposer will be responsible for the design of the project. The Proposer will also be responsible for obtaining approval of the design by the County, including the approval of the building and site plan and all work required to satisfy the requirements of local and state authorities.

**RESPONSE:** The Avis/Firstfloor team looks forward to the opportunity to provide the design of these projects. Our team acknowledges that we are responsible for obtaining approval of the design by the County, including the approval of the building and site plan and all work required to satisfy the requirements of local and state authorities. We have provided a schedule outlining how we plan to approach receiving all of these permits and approvals and delivering the project on-time in Volume II, page 41.

Section 6.2.1 – The Proposer will coordinate with RCPS to allow the installation of furniture, fixtures, and equipment during the final stages of the project so that this can be done without a separate post-construction phase.

**RESPONSE:** The Avis/Firstfloor team will coordinate with RCPS to allow the installation of furniture, fixtures, and equipment during the final stages of the project so that this can be done without a separate post-construction phase.



Section 6.4 Design Considerations

**RESPONSE:** The Avis/Firstfloor team acknowledges the design considerations included in Section 6.4 of the RFP, and we intend to deliver projects that meet all of these criteria if selected.



JONES COUNTY K-12 SCHOOL

# 6.5 Qualifications & Experience





6.5.1 The legal structure of the firm or consortium of firms making the proposal. The organizational structure for the project, the management approach, and how each partner and major subcontractor in the structure fit into the overall team.

### Legal Structure

The project presented in this proposal will be developed as a joint venture between Avis Construction Company, Inc. and Roanoke K-12 Development, LLC (a Virginia limited liability company formed specifically for this project) dba Firstfloor Roanoke. Roanoke K-12 Development, LLC is a sister company of Firstfloor, a development company that does public-private partnerships and design-build projects.

**Organizational Structure:** Please refer to the Organizational Chart provided on the next page.

**Management Approach:** The team utilizes an integrated design and construction delivery approach. We include all stakeholders in decisions and work collaboratively to deliver the project on time and within budget while meeting project goals. Troy Smith at Avis will be the school district's primary point of contact.

The primary responsibilities of the Avis/Firstfloor team are as follows:

**Avis/Firstfloor** will develop the project and act as the primary point of contact for RCPS. **Avis Construction** will provide design-build services to deliver the three projects. The joint venture will subcontract with the firms listed below:

**Hughes Associates, Architect & Engineers** will provide architectural and civil engineering on the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. Huges Associates was established in 1985, and since that time has delivered several educational projects. Hughes Associates will subcontract with the following firms:

**Lawrence Perry & Associates Consulting Engineers (LPA)** will provide mechanical, plumbing, and electrical design for the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. LPA was founded in 1975 and since that time has delivered engineering services on dozens of K-12 facilities.

**Day & Kinder Consulting Engineers** will provide structural design services on the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. Day & Kinder Consulting Engineers was first established in 1994, and has worked on numerous K-12 projects.

**Food Service Consultants** will act as the foodservice consultant for the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. Food Service Consultants was founded in 2000 and has completed over 350 foodservice new or renovation K-12 design projects.

**SfL+a Architects** will provide architectural and engineering services for the new CTE Center. SfL+a has gained a broad range of experience in the design of educational facilities having designed over 1,000 educational projects. SfL+a will subcontract with the following firms:

**Hughes Associates, Architects & Engineers** will provide civil engineering services on the new CTE Center.

**Optima Engineering** will provide mechanical, electrical and plumbing design services. Optima has been deeply involved in sustainable design, advocating a holistic approach that coordinates all aspects of the building design to achieve a high level of performance.

**Bennett & Pless** will provide structural engineering services. Bennett & Pless has been providing exceptional structural engineering services since 1964, having delivered numerous K-12 projects.

**Food Service Consultants** will act as the foodservice consultant for the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. Food Service Consultants was founded in 2000 and has completed over 350 foodservice new or renovation K-12 design projects.

**Piper Sandler** will provide financing for all three projects. Piper Sandler was founded in 1895 and has been helping clients achieve their goals for over 125 years. Piper Sandler is a public company with a \$2 billion market capitalization and over 1,700 employees.

**CIS** will provide security consulting. Since 1992, Critical Intervention Services (CIS) has assisted hundreds of clients in managing a diverse range of security risks.

**Technical Education Solutions** will be the equipment consultant for the CTE Center.

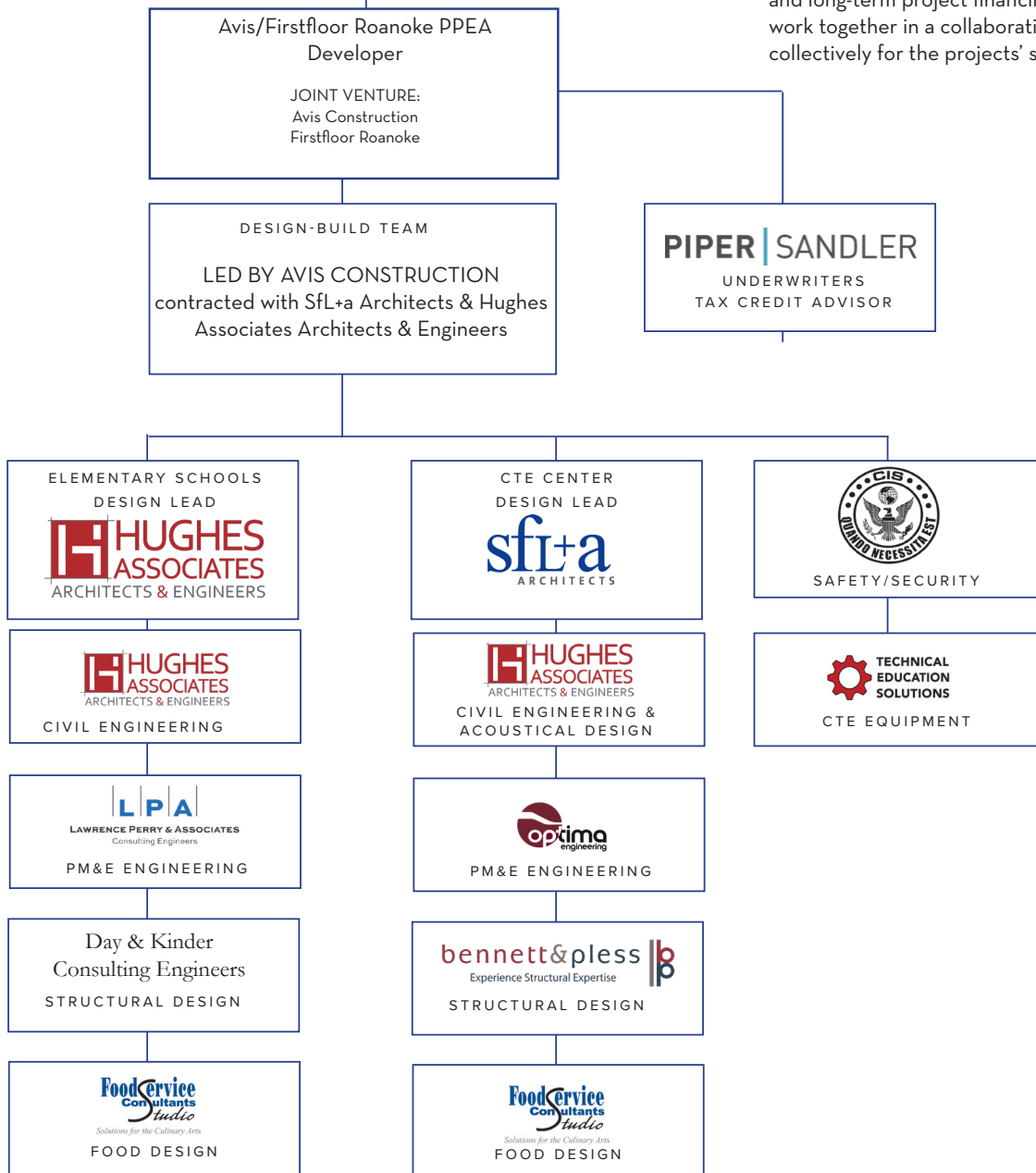
6.5 QUALIFICATIONS & EXPERIENCE



6.5.1 The legal structure of the firm or consortium of firms making the proposal. The organizational structure for the project, the management approach, and how each partner and major subcontractor in the structure fit into the overall team.



The work will be managed by Avis/Roanoke K-12 Development Partners, LLC, dba Firstfloor Roanoke, which is a joint venture. Troy Smith will be the school district's main point of contact. The joint venture will contract with Avis Construction to design and build the project. Avis will contract with Hughes Associates to design the Glen Cove Elementary School and W.E. Cundiff Elementary School projects. Avis will contract with SfL+a Architects to design the new CTE Center. Piper Sandler will provide short-term and long-term project financing. The integrated team will work together in a collaborative manner and be responsible collectively for the projects' success.





6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.

#### Team Experience

##### **Design Build**

For over 40 years, **Avis Construction** has earned recognition for providing the Roanoke region with large, complex, and innovative projects. Most recently, Avis Construction completed several very successful large projects for Roanoke County Public Schools. Avis Construction completed the renovations to Cave Spring High School. Working closely with representatives of RCPS and the staff at CSHS, the project was successfully completed. Likewise, Avis Construction is performing the renovations to William Byrd High School. During the design phase of this project, Avis and a representative from RCPS and William Byrd High School staff worked very closely together to design a school that meets the specific needs of that school. This collaboration is a text book example of how well the process can work when both parties are genuinely invested in providing the absolute best school for the community at the best VALUE! Both CSHS and WBHS will serve as examples of how well the construction process can work for decades to come. Avis Construction, Hughes Associates, Architects & Engineers would like the opportunity add the new CTE, W.E. Cundiff and Glen Cove school to that list.)

**Firstfloor** is a company specifically designed to provide turnkey development solutions to educational institutions. Its team is comprised of seasoned professionals, each with 25-30 years of industry experience, within the disciplines of architecture, banking/finance, construction, and property management.

In the midst of the last recession, public owners encountered more difficulty in obtaining financing for their often urgent projects. Firstfloor was formed by the ownership of SfL+a Architects as a separate entity to provide development solutions for our public clients. Firstfloor has provided development, financial and other consulting services on 26 public-private projects representing approximately 3,000,000 square feet. Together, SfL+a Architects and First floor offer services ranging from project management to at risk development and facilities operation. We are committed to meeting the needs of all our clients regardless of complexity and uniqueness. Working together, Firstfloor and SfL+a have developed more energy-positive public schools than any firm in the nation.

##### **Design**

**Hughes Associates, Architects and Engineers** has a legacy that stretches back to 1985 and is a collaborative community of professionals dedicated to positively impacting the way communities live, learn, work, and play. Through the years, we have grown and expanded our services with the addition of an in-house civil engineering department, a trained acoustician, interior design, and the addition of a number of experienced senior architects.

Today, Hughes Associates A&E is a recognized leader in the region for their innovative approach to the planning and design of State and Local Facilities, K-12, Higher Education, Healthcare, Public Safety, Multifamily, Senior Living, Industrial/Manufacturing, Worship Centers, Commercial & Retail, and Single Family Housing.

##### **SfL+a Architects**

SfL+a Architects was founded as a “service-oriented firm” in 1982. For over 40 years, that founding principle has not changed. SfL+a Architects creates aesthetically pleasing, sustainable, and appropriate spaces for people to live, learn, work, play, pray, and thrive. Our determination to provide architectural excellence through unsurpassed quality is driven by a commitment to communities and the people in them. It is our desire that each space we design reflects the goals, style, and strength of the comprehensive whole, the “big picture.” SfL+a Architects designed in excess of 1,000 K-12 facilities.

##### **Debt Underwriter**

Piper Sandler will serve as debt underwriter. Piper Sandler has placed debt on over \$113 Billion K-12 projects throughout the U.S. since 2013 and has been instrumental in placing debt on Firstfloor’s energy positive schools.

##### **Warranty**

The project will be bonded through Avis Construction. Work performed on the project will be covered by a one-year warranty with longer duration warranties (for example, an extended roof warranty) provided by the respective subcontractor and material manufacturer.



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



As a Principal-In-Charge and licensed architect, Robbie has designed and managed a variety of public building types including K12 educational facilities and university housing, as well as municipal and commercial projects. His continued desire to place students, regardless of age, in safe, sustainable environments that stimulate their minds supports his belief that these environments help them understand their unique purpose. A LEED accredited professional and Recognized Educational Facility Professional (REFP), Robbie believes that “building communities that are healthy on their own merits are even better when plugged into the world around them.” Robbie is passionate about designing high performance, Energy Positive buildings.

**Project Experience**

**PROJECTS**

- New K-12 School, Washington County Schools
- Tar Heel K-8 School, Bladen County Schools
- New Hoke High School, Hoke County Schools
- Robeson CTEC, Public Schools of Robeson County
- New 6-12 School, Pamlico County Schools
- New K-12 School, Jones County, NC
- 4 New Middle Schools, 1 New Elementary School, Horry County Schools, SC
- Penderlea K-8 School, Pender County Schools
- Grantham MS & Spring Creek MS, Wayne County Schools
- Sandy Grove Middle School, Hoke County Schools
- Rocky Mount High School, Nash-Rocky Mount Schools
- Career and Technical High School, Alamance-Burlington Schools
- Watauga High School, Watauga County Schools
- Eastern Guilford High School, Guilford County Schools
- Union & Midway High Schools, Sampson County Schools
- Clinton High School, Clinton City Schools
- Northern Guilford High School, Guilford County Schools
- Jesse Carson High School, Rowan-Salisbury Schools
- Overhills High School, Harnett County Schools
- Jack Britt High School, Cumberland County Schools
- Highland Middle School, Harnett County Schools
- Dillon Middle School, Dillon County Schools, SC
- Blenheim Elementary/Middle School, Blenheim, SC
- Latta Elementary School, Dillon, SC
- Dillon Middle School, Dillon, SC
- Margaret B. Pollard Middle School, Chatham County Schools
- New Century International Elementary School, Cumberland County Schools
- Snipes Academy of Arts and Sciences, New Hanover County Schools
- Southeastern Middle School, Stokes County Schools
- Wagram Classroom Addition/PE Classroom Addition, Scotland County Schools
- Clio Elementary/Middle School Addition & Renovation, Marlboro County Schools, SC
- Croatan HS Auditorium Addition, Carteret County Schools

**PRINCIPAL-IN-CHARGE**

**Robert W. Ferris, AIA, REFP, LEED AP**

**Registered Architect** - NC, SC, VA, GA, NY, NJ, TN, FL

**Professional Affiliations & Awards:**

- American Institute of Architects
- Association for Learning Environments (A4LE)
- A4LE North Carolina Chapter, board member/Past President
- Registered Educational Facility Planner (REFP)
- LEED Accredited Professional

**Education**

UNC-Charlotte; Bachelor of Architecture & Bachelor of Arts in Architecture



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## PROJECT DESIGNER

### Eric Lindstrom, AIA, LEED AP

Eric is a gifted designer with unique ability to translate functional and contextual requirements of a building into a masterfully done piece of architecture. He is a Project Designer with professional experience in all phases of building design, construction documents and administration with diversified experience from corporate headquarters to custom oceanfront residences with experience in building types including, but not limited to: Educational Facilities; Student Housing; Mixed-use urban development; Historic Tax Act Rehabilitation projects; Single & Multi-Family Residential.

**Registered Architect:** NC, FL, SC

#### Professional Affiliations & Awards:

American Institute of Architects Member

LEED® Accredited Professional

AIA Henry Adams Medal as Top Ranked Graduate, UNC-C

Special Merit Award St. Petersburg Clearwater AIA Chapter

NC AIA Summer Traveling Fellowship

John B. Thomas, NC AIA Scholarship Recipient

#### Education

UNC at Charlotte

Bachelor of Architecture & Bachelor of Arts in Architecture

Symposium - Harvard University Graduate School of Design

Museum & Performing Arts Design

Public Library Planning & Design

#### Project Experience

New Pamlico 6-12 High School, Pamlico County Schools, NC

New Robeson Career & Technical Education Center, Public Schools of Robeson County, NC

New Hoke High Schools, Hoke County Schools, NC

New Claxton Elementary Schools, Guilford County Schools

New K-12 School, Jones County, NC

Penderlea K-8 School, Pender County Schools

Grantham MS & Spring Creek MS, Wayne County Schools

Sandy Grove Middle School, Hoke County Schools

4 New Middle Schools, 1 New Elementary School, Horry County Schools, SC

Rocky Mount High School, Nash-Rocky Mount Schools

Watauga High School, Watauga County Schools

Eastern Guilford High School, Guilford County Schools

Union High School, Sampson County Schools

Midway High School, Sampson County Schools

Clinton High School, Clinton City Schools

Northern Guilford High School, Guilford County Schools

Jesse Carson High School, Rowan-Salisbury Schools

Overhills High School, Harnett County Schools

Gray's Creek High School, Cumberland County Schools

East Bladen High School, Bladen County Schools

West Bladen High School, Bladen County Schools

Bertie High School, Bertie County Schools

Jack Britt High School, Cumberland County Schools

White Oak High School Addition, Carteret County Schools

Dixon High School Addition & Renovation, Onslow County Schools

Clinton High School Science Lab Renovation, Clinton City Schools

New Century International Elementary School & Library, Cumberland County Schools

Overhills Elementary School, Harnett County Schools

New Boone Trail Elementary School, Harnett County Schools

Coats Elementary School Gymnasium Facility, Harnett County Schools

Rockfish-Hoke Elementary School Additions, Hoke County Schools

Sandy Grove Elementary School Addition, Hoke County Schools

Stoney Point Elementary School Addition, Cumberland County Schools

Sunset Park Elementary School Addition / Renov. & Study, New Hanover County Schools

Thomasville Middle School Addition & Renovations, Thomasville City Schools



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## PROJECT COORDINATOR

**Asher McGlothlin, LEED AP BD+C, WELL AP**

Asher McGlothlin grew up in Grundy, Virginia, a small town in Rural Appalachia. Asher’s initial interest in building came at a young age from tagging along with his grandfather to work on carpentry projects. During his teenage years, a floodproofing project razed the majority of buildings in Grundy’s beloved downtown area. Little opportunity was provided to local residents to provide input on this project. After watching a large portion of his hometown’s local history be erased, Asher became passionate about incorporating community engagement as an integral part of the design process. He has since worked with numerous communities in developing strategies for engagement. For every project, his goal is to facilitate the creation of spaces and buildings that empower individuals through the design process and contribute to a built environment where people feel more connected with one another and the world that surrounds them. His role in the projects will be to coordinate the design documents and the community engagement efforts.

### Professional Affiliations & Awards:

LEED® Accredited Professional

WELL Accredited Professional

### Education

Master of Architecture, Columbia University, 2022

Master of Science in Real Estate Development, Columbia University, 2022

Bachelor of Science in Architecture, University of Virginia, 2015

Grundy High School, 2011

### Project Experience

New Robeson Career & Technical Education Center, Public Schools of Robeson County, NC

New Hoke High School, Hoke County Schools, NC

\*Alice West Fleet Elementary School, Arlington Public Schools

\*\*Buchanan County High School, Buchanan County Public Schools

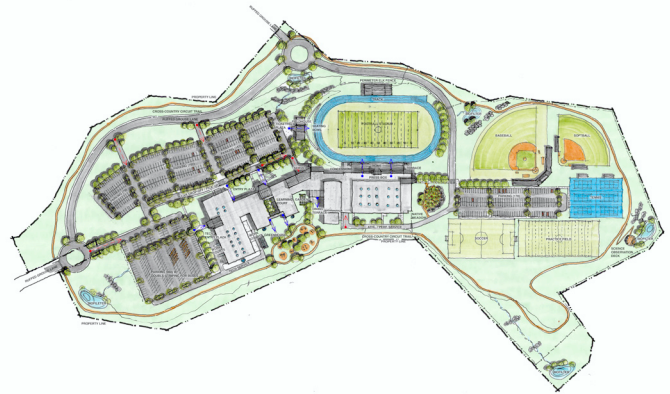
\*Bluestone Elementary School, Harrisonburg City Public Schools

\*Elon W. Rhodes Early Learning Center, Harrisonburg City Public Schools

\*School Facilities Assessment, Radford City Public Schools

\* Work Completed while employed at VMDO Architects

\*\*Previous Work Experience - as the Owner of Steep Street Design, working as a consultant to VMDO Architects







6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



**Richard A. Green**  
**Firstfloor**  
**Role: Financial Analyst**

Rick has been involved in various finance/banking and business disciplines including small business consulting, strategic planning, finance, qualified plan design and management, real estate investment/development, construction, and the associated management of these companies ranging from Assistant Vice President to Chief Executive Officer. In late 2000, Rick left the banking world to form a real estate development company, First-floor, specifically designed to provide turn-key (financing, design, construction, management) development projects to governmental and non-profit entities. This company has successfully completed student housing facilities comprising over 3000 beds for various university/college affiliated non-profit entities and is currently completing construction projects for several governmental and non-profit entities. The company completed the first energy-positive, leased, governmental building in the US and has pioneered the development of buildings leased to governmental entities in the US.

**Registration:** Registered Representative - National Association of Securities Dealers - Series 7 & 63

**Education:** Brigham Young University - Bachelor of Science Financial Planning

**RELEVANT EXPERIENCE**

- City Gateway - New 10-story High-Rise & Charter school
- 5 Energy-Positive Buildings in Myrtle Beach, SC
- Sandy Grove Middle School, Hoke County Schools - The Nation's First Leased Energy-Positive Public School
- 2 Energy-Positive Schools in Wayne County, NC
- Energy Positive Building in Jones County, NC



**Joe Niggel**  
**Piper Sandler**  
**ROLE:** Underwriter

Mr. Niggel is an accomplished investment banker with 33 years of demonstrated success in municipal finance, including approximately seven years with county and state government and 26 years as an investment banker responsible for structuring and underwriting municipal projects and project finance transactions throughout the US. Mr. Niggel has experience in the following specialty markets: General Government, Transportation (Airports and Toll Road Systems), K-12, Utility Systems, Higher Education, Public-Private Partnerships and project finance transactions. He has served as Firstfloor's underwriter for approximately 12 years and provides financing for all of their K-12 projects, energy positive initiatives and other various municipal and corporate projects.

**Education:** BS/Masters International Economics & Finance, University of South Carolina



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## Troy J. Smith

Project Executive, Sr. Project Manager



SMIHT@AVISCONSTRUCTION.COM

### EXPERIENCE

OVER 30 YEARS OF EXPERIENCE

**AVIS CONSTRUCTION**, President

2011-Present

**AVIS CONSTRUCTION**, Vice President of Operations

2010-2011

**SMITH PACKETT MED-COM**, Director of Design & Construction

2004-2010

**BRANCH & ASSOCIATES**, Senior Project Manager

1998-2004

### EDUCATION

**VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY**

B.S. Building Construction, 1994

**ROANOKE COLLEGE**

The Management Institute, 2001

### SKILLS & ABILITIES

Mr. Smith has over 30 years of construction experience. His career began as a draftsman for an A&E firm while in high school and continued through college. His experience includes 7 years as the Director of Construction for a large senior living and health care real estate development company. There, he managed the development and construction of numerous projects throughout the eastern United States.

His experience with design, construction, and ownership perspective provides him with a unique ability that adds value to every construction project. He is currently serving as the President of Avis Construction Company and is the Project Executive on the William Byrd High School Project, ensuring the project receives full management attention, from preconstruction to final completion.

### PROJECT EXPERIENCE

- William Byrd High School
- Cave Spring High School
- George Wythe High School Renovation
- Round Hill Elementary
- Shelor Airplane Hanger
- Greenfield Shell Building
- Haley Toyota
- Polymer Solutions
- Botetourt Assisted Living
- Richfield Nursing
- Glade Creek Apartments
- Harbor Village Apartments
- Fallon Park Elementary School
- Falling Branch Elementary School
- VTCRC Building 1331
- VTCRC Building 1311
- Vinton Library
- Smith Mountain Lake Water Treatment Plant
- Sar Hill Brewery
- TORC Robotics
- Carilion Reserve Avenue Realignment
- Crossing at Bon Air (IL, AL, MC)
- Stafford Nursing & Rehabilitation
- Chesterfield Nursing & Rehabilitation



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**Laura Bradford**  
Project Manager



BRADFORDL@AVISCONSTRUCTION.COM

**EXPERIENCE**

OVER 23 YEARS OF EXPERIENCE

- AVIS CONSTRUCTION**, Project Manager  
2009-Present
- STAR CITY MASONRY**, Assistant Project Manager  
2008-2009
- LIONBERGER CONSTRUCTION**, Assistant Project Manager  
2004-2006
- MARTIN BROTHERS CONTRACTING**, Project Engineer  
2000-2003

**EDUCATION**

- VIRGINIA WESTERN COMMUNITY COLLEGE**,  
Associates in Applied Science, Architectural and Civil Engineering 2008
- AVERETT UNIVERSITY**,  
Bachelor of Business Administration 2020

**SKILLS & ABILITIES**

Ms. Bradford has over 23 years of construction experience. She has completed small tenant up-fits, renovations and additions, as well as new construction. She believes each and every project deserves attention to details regardless of the size of the project. Her expertise includes renovation, commercial, retail, healthcare, education, and senior living. In order to promote a team atmosphere between all members, she utilizes strong communication skills to ensure planning and coordination, two key elements of a successful project.

**PROJECT EXPERIENCE**

- William Byrd High School
- VTCRC Building 1331
- VTCRC Building 1311
- Daleville Shared Services
- American Health Care
- Roanoke City Huff Lane and Fishburn Parks
- Qualtrax
- Carilion Daleville Imaging Build-out
- H&V Flex Building
- Fiat of Roanoke
- Carilion McClanahan MOB-CIC
- Berglund Chrysler Jeep
- Commonwealth Care of Roanoke
- Richfield Retirement T. Stuart Payne
- Carilion Jefferson Plaza PEDS Clinic
- Carilion 902 Jefferson 1<sup>st</sup> Floor RAP
- CRCH 4<sup>th</sup> Floor Women’s Services
- Carilion Family Practice Salem
- Carilion Medical Center Daleville
- American Healthcare Valleypointe
- National Optical Christiansburg
- Giles County Technical Center
- Windy Gap Elementary School



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**Jack Bulls**

Director of Preconstruction Services



BULLSJ@AVISCONSTRUCTION.COM

**EXPERIENCE**

OVER 34 YEARS OF EXPERIENCE

**AVIS CONSTRUCTION**, Director of Preconstruction Services

2011-Present

**BRANCH ASSOCIATES**, Senior Estimator

1993-2011

**THOR INCORPORATED**, Assistant Project Manager/Estimator

1988-1993

**EDUCATION**

**VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY**

B.S. Building Construction, 1988

**SKILLS & ABILITIES**

Mr. Bulls has over 34 years of construction experience as both a Project Manager and Estimator. Jack now heads our Pre-construction Services. Jack has experience in all aspects of general construction to include industrial, commercial, educational, research and development, senior living, and multi-family. He believes each and every project deserves attention to detail regardless of the size of the project.

521

In order to promote a team atmosphere between all members, he utilizes strong communication skills to ensure planning and coordination, two key elements of a successful project.

**PROJECT EXPERIENCE**

- Carrington Cottage Assisted Living
- Round Hill ES Additions/Renovations
- Round Hill Kitchen/Cafeteria
- Bridgewater College Renovations
- National Assisted Living
- VTCRC 1971
- Elliston Elementary School
- Statesville High School Renovations
- Radford University Fine Arts Center
- Highland Springs High Renovations
- Douglas Freeman High School Renovations
- Blacksburg Middle School
- Spotsylvania Middle School
- Roanoke Civic Center Phase 2
- Moody Middle School
- Critzer Elementary
- Meadowbrook High School Additions
- Greenfield Shell Building
- Montgomery County Animal Center
- VTCRC Rackspace
- Augusta Medical Center OR
- Dunlop House Assisted Living
- VTCRC VTTI
- Novozymes Biological
- VTCRC Knowledgeworks I
- VTCRC Knowledgeworks II
- VTCRC ICTAS
- Rockbridge County Courthouse
- Christiansburg Middle School
- Mountain View Elementary
- Natural Bridge Elementary
- Auburn Elementary
- Henry County Courthouse
- Effinger Elementary



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**Clayton Perry**  
Senior Project Manager



PERRYC@AVISCONSTRUCTION.COM

### EXPERIENCE

OVER 37 YEARS OF EXPERIENCE

- AVIS CONSTRUCTION**, Senior Project Manager  
2019-Present
- SHAH DEVELOPMENT, LLC.**, Director/Senior Project Manager  
2015-2019
- BARTOM MALOW COMPANY**, Senior Project Manager  
2014-2015
- AVIS CONSTRUCTION COMPANY**, Project Manager  
2011-2014
- SMITH PACKETT MED COM**, Director of Construction  
2004-2009
- BRANCH & ASSOCIATES, INC.**, Senior Superintendent  
1985-2004

### SKILLS & ABILITIES

Highly motivated construction professional experienced in management of project planning and preparation of the CPM baseline, while maintaining a track record of exceeding goals and schedules. Experienced in managing all aspects of subcontractors and vendors including mitigating potential change orders and back charges. Skilled in managing Quality Control Programs and safety standards. Strong background in Commercial, Industrial, Senior Living, K-12, University, and Multi Family

### PROJECT EXPERIENCE

- Patton Logistics
- VT CRC 1691: Rackspace
- Aeroprobe
- VT CRC 1971: VPT
- Inorganic Ventures
- Shelor Subaru
- Best Western Inn-Hunt Ridge
- Comfort Suites-Lewis Gale
- Expedition Station Snowshoe
- Carrington Place of Tampa
- College of Nursing-Radford University
- Rich Square Health & Rehabilitation
- Jackson County Nursing & Rehabilitation
- VTTI
- VT Airport Hangar
- CCS Renovations
- Shelor Toyota
- Berglund Chevrolet
- Calfee Park Field Renovations
- CCS Computers
- 8 Jefferson Place
- Crystal Springs Medical Office Building
- Waldron College of Nursing-Radford Waldron
- Currituck Health & Rehabilitation
- New Residence Halls-VA Tech
- St. James Nursing & Rehabilitation
- Berglund Jaguar Land Rover
- Block.One
- Torc Robotics Expansion
- Hollingsworth & Vose
- VT New ROTC Dorms



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**Tim Moran**

BIM Coordinator



MORANT@AVISCONSTRUCTION.COM

**EXPERIENCE**

OVER 8 YEARS OF EXPERIENCE

- AVIS CONSTRUCTION**, Project Manager  
2021-Present
- AVIS CONSTRUCTION**, Assistant Project Manager  
2020-2021
- CBG BUILDING COMPANY**, Project Engineer  
2020-2021
- NATIONAL POOLS OF ROANOKE**, Project Engineer, Laborer  
2016-2018

**EDUCATION**

- VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY**  
B.S. Building Construction, 2019  
B.S. Real Estate, 2019

**SKILLS & ABILITIES**

Mr. Moran has over 8 years of construction experience. His career began in the field working for a subcontractor and quickly was promoted to the office. After graduating from VA Tech, Tim moved to NOVA to work for a large general contractor where he gained valuable experience on large projects. One of Tim’s strengths is IT knowledge. His ability to use most construction software such as REVIT, Procore, MS Project, etc. is invaluable to Avis. He’s a great communicator with owners and subcontractors.

**PROJECT EXPERIENCE**

- William Byrd High School
- VWCC Workforce Training Center
- Raleigh Court Presbyterian Church Phase 1
- VTCRC Building 1331
- Patton Warehouse



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**Robert Barton**  
Senior Field Superintendent



BARTONR@AVISCONSTRUCTION.COM

**EXPERIENCE**

OVER 42 YEARS OF EXPERIENCE  
39 YEARS WITH AVIS CONSTRUCTION

- AVIS CONSTRUCTION**, Senior Field Superintendent  
1994-Present
- AVIS CONSTRUCTION**, Carpenter, Superintendent  
1983-1994
- HAPPY'S FLEA MARKET**, Maintenance & Carpentry  
1980-1983

**EDUCATION**

**WILLIAM BYRD HIGH SCHOOL**

**SKILLS & ABILITIES**

Mr. Barton has over 42 years of construction experience and 39 years with Avis Construction. He started as a carpenter and worked his way up to Senior Field Superintendent. Robert completed Fallon Park Elementary School, which was a 3 phased, 2.5 year-long project while the school stayed in operation for a cost of \$21,460,000.00. Robert's strengths is his ability to communicate with all participants in a project and creating a plan for a successful project.

**PROJECT EXPERIENCE**

- William Byrd High School
- Botetourt Assisted Living
- Vinton Branch Library
- 2<sup>nd</sup> Presbyterian Church
- First Baptist Church of Salem
- VA Orthopedic
- Church of the Holy Spirit
- Sherwood Memorial Park
- Vinton War Memorial
- Semco
- The Achievement Center
- Applied Sales
- Reddy Ice
- Carilion Brambleton Stage II Recovery
- Fallon Park Elementary
- Floyd County Growth Center
- Friendship
- Our Lady of the Valley
- FedEx Ground--Formerly RPS
- Kabuki Steakhouse-Roanoke
- Kabuki Steakhouse-Christiansburg
- State Electric
- Norfolk Southern Wheel Truing Shop
- Tetra Carbon Addition/Mezzanine
- Roanoke County Wash Building
- Roanoke Cement Foundations
- Corrugated Container Corporation
- Tetra USA Warehouse Addition
- CCS



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**Drew Jackson**  
Senior Superintendent



JACKSOND@AVISCONSTRUCTION.COM

**EXPERIENCE**

**OVER 30 YEARS OF EXPERIENCE  
2.5 YEARS WITH AVIS CONSTRUCTION**

**AVIS CONSTRUCTION,**  
Senior Superintendent  
2021-Present

**CLARK NEXSEN CONSTRUCTION SERVICES,** Senior Superintendent  
2019-2021

**WIELAND CORPORATION,**  
Superintendent  
2012-2021

**TATUM INTERMEDIATE SCHOOL DISTRICT,** Senior Superintendent  
2009-2012

**INNOVATIVE BUILDING & CONSTRUCTION,** Owner  
2004-2009

**THE SKILLMAN CORPORATION,**  
Superintendent  
2002-2004

**THE CHRISTMAN COMPANY,**  
Superintendent  
1995-2002

**CEILING & PARTITION,** Foreman  
1993-1995

**SKILLS & ABILITIES**

Mr. Jackson has over 30 years of construction experience and 2.5 with Avis Construction. He started as a foreman and worked his way up to Senior Superintendent. Drew’s strength is his ability to foresee project challenges and opportunities for higher quality and cost savings.

**CERTIFICATIONS & PROFESSIONAL ASSOCIATIONS**

Construction Project Management Certificate, Ferris State University

Construction Administration Certificate, Ferris State University

OSHA 30

**EDUCATION**

**GRAND RAPIDS COMMUNITY COLLEGE  
CALEDONIA HIGH SCHOOL**

**PROJECT EXPERIENCE**

- Grand Rapids Public Schools Administration Building and Data Center renovations
- Hastings Public Schools Central ES, Southeast ES, and New MS
- Coopersville High school Gymnasium and Auditorium additions
- Fremont Area District Library
- Montcalm Community College
- Lawton New Middle School
- Tatum Texas ISD
  - High school addition and Renovation
  - High school kitchen Renovation
  - Indoor football facility and Weight room
  - Stadium turf and track resurfacing
  - Track and field event center
  - Primary School additions
  - New Elementary School
  - New Maintenance and Transportation building





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## Christian Villalobos

Assistant Project Manager



VILLALOBOSC@AVISCONSTRUCTION.COM

### EXPERIENCE

**AVIS CONSTRUCTION**, Assistant Project Manager  
2022-Present

**AVIS CONSTRUCTION**, CDL Driver  
2021-2022

**UNITED HEALTHGROUP**, Quality Review Specialist  
2020-2021

**APPLE INC**, Senior Apple & Mac Technical Support Advisor  
2016-2020

### EDUCATION

**VIRGINIA WESTERN COMMUNITY COLLEGE**  
Construction and Project Management, 2021-2022

**VIRGINIA WESTERN COMMUNITY COLLEGE**  
Information Systems Technology, 2012

### SKILLS & ABILITIES

Mr. Villalobos has over 8 years of construction experience. His career began working for a family owned residential construction company while in high school and in summers and continued through college. His experience includes 2 years in Commercial Construction.

### PROJECT EXPERIENCE

- Ruffner CTE RCPS Project (Assistant Project Manager)
- Hollins University Library Renovation (Assistant Project Manager)
- Berglund Toyota (Assisted Field Superintendent)
- Raleigh Court Presbyterian (Assisted Field Superintendent)
- Steel Dynamics (Various Project in Field)
- William Byrd High School (Assisted Field Superintendent)
- Haley Toyota (Assisted Field Superintendent)



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## Elementary School Design Team Manager

W. Michael Woolwine

### Professional Affiliations & Awards:

Roanoke Zoning Ordinance Steering Committee  
Roanoke Regional Home Builders  
Fellowship of Christian Athletes

### Education

Old Dominion University, Bachelor of Science in  
Civil Engineering Technology, 1988

With over 35 years of civil design and project management experience, Mike leads Hughes Associates A&E as President directing and managing day to day operations, taking care of current client needs, developing new client relationships and assuring that projects produced by Hughes Associates A&E meet the clients goals. Mike is also personally involved in managing projects, producing site development plans and master plans, bidding and negotiating projects, and construction administration.

### Project Experience

#### PROJECTS

- Roanoke City Public Schools Term Contract 2018-Current
- Fallon Park Elementary School new construction, Roanoke, VA
- Morningside Elementary School two-story classroom addition, admin area, and library modifications, Roanoke, VA
- Round Hill Elementary School expansion and renovation, Roanoke, VA
- William Byrd High School additions and renovations, Roanoke, VA
- Community School addition, Roanoke, VA
- Hurt Park Elementary School new gymnasium, Roanoke, VA
- Honeytree Early Learning Center change of use and site plan design, Roanoke, VA
- Old Dominion University site plan design for new parking garage\*



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John has over 22 years of experience in design and construction document production. He has depth of understanding in how to translate the project vision into the drawings and specifications that graphically and technically represent the project for construction. He has the experience to think creatively to solve a problem, schedule a path for the project, and develop project budgets and manpower predictions. John is proficient in the technical design aspect as well as having the interpersonal skills to communicate clearly with his clients.

**Project Experience**

**PROJECTS**

- William Byrd High School Additions and Renovations, Roanoke, VA
- Morningside Elementary School Classroom Addition, Roanoke, VA
- Masons Cove Elementary School, Roanoke County, VA\*
- Green Valley Elementary School, Roanoke County, VA\*
- Burlington Elementary School, Roanoke County, VA\*
- Price’s Fork Elementary School, Montgomery County, VA\*
- Glenvar High School, Roanoke County, VA\*

**Project Architect**

John R. Garrett, AIA, NCARB, LEED AP

**Registered Architect**- VA

**Education**

Virginia Tech, Bachelor of Architecture, 1997



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## Senior Designer

Earle Shumate, Associate AIA, LEED AP

### Professional Affiliations & Awards:

American Institute of Architects  
Roanoke Regional Home Builders  
Construction Specifications Institute

### Education

University of Virginia, Bachelor of Science in  
Architecture, 1981

Creative and innovative design solutions are a hallmark of Earle's work. With over 22 years experience at a design-build firm before joining Hughes Associates A&E in 2005, he is able to integrate his extensive knowledge of construction with the aesthetic sense of a mature designer. He works closely with clients to help them focus on both their programmatic needs and aesthetic desires. Incorporating the philosophy that good design does not have to be expensive, his goal in every project is to create durable and sustainable spaces that inspire their users, improve operational efficiencies, and meet budget and scheduling goals during construction.

### Project Experience

#### PROJECTS

- Fallon Park Elementary School new construction, Roanoke, VA
- Hurt Park Elementary School new gymnasium, Roanoke, VA
- Morningside Elementary School Classroom addition, Roanoke, VA
- Round Hill Elementary School expansion and renovation, Roanoke, VA
- William Byrd High School additions and renovations, Roanoke, VA
- Roanoke City Public Schools Term Contract 2018-Current
  - » Morningside Elementary School, including Modifications to Admin & Library
  - » Security Vestibules
  - » HVAC Renovations
  - » COVID Reopening Plan



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Clients appreciate Sara's offer to not only develop the overall vision of the project but understanding the spatial requirements down to the details. Her knowledge of interior environmental needs such as developing corporate standards, color theory & consulting, and FF&E packaging enhances the overall experience of the space. Sara has managed fixed asset inventories; handled relocation and transportation logistics; and in-residence consulting for commercial Realtors.

### Project Experience

#### PROJECTS

- Morningside Elementary School Classroom addition, Roanoke, VA
- William Byrd High School additions and renovations, Roanoke, VA
- Roanoke County Public Libraries new construction, Salem and Roanoke, VA\*
- Virginia Episcopal School – President's Home, Student Housing Lobbies, Library Lobby and Student Stacks and Carrels, Lynchburg, VA\*

## Interior Design

Sara Grochowski, NCIDQ, ASID

Registered Interior Designer - VA

### Education

Virginia Tech, Bachelor of Science in Housing, Interior Design, and Resource Management, 1987



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John leads our civil engineering efforts joined Hughes Associates A&E in 2023. John has worked on a wide range of projects for public and private clients, including single- and multi-family housing, urban mixed-use, commercial, and large-scale industrial. He is accomplished in all aspects of land development, including stormwater management, erosion and sediment control, pavement design, drainage design, utility design, traffic analysis, and flood studies.

**Project Experience**

**PROJECTS**

- Loudoun County Public Schools - Site plans and/or construction administration necessary to remove existing grass fields and replace with synthetic turf surfaces as well as upgrading the surrounding tracks at Dominion, Freedom, and Broad Run High Schools
- Howard Hughes Medical Institute – Manager and lead civil designer for a youth recreation facility (including synthetic turf athletic field and playground) and daycare expansion projects within a medical research facility, Ashburn, VA
- Market Terminal - planned development conversion of an old industrial area into vibrant, pedestrian-friendly, mixed-use, DC\*
- Nobu mixed-use development and dining, Washington DC\*
- McDonald’s - Point person for Major Renovation Program to include interior upgrades, parking renovations, and bringing sites up to current ADA standards, Northern VA & Southern MD

**Design Team Manager**

Johnathan C. Brodie, PE

**Registered Professional Engineer - VA**

**Education**

Virginia Tech, Bachelors of Science in Civil & Environmental Engineering, 2010

George Mason University, Masters of Business Administration, 2014



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## Day & Kinder Consulting Engineers



With over 35 years of professional design experience, Jay Kinder's expertise includes structural design for steel, concrete, and wood structures. Jay works with all building types including academic, healthcare, commercial, religious, industrial, and residential. Jay also has extensive professional experience in the evaluation and renovation of both existing and historic facilities. Additionally, Jay has expertise in the evaluation and remediation of structures damaged by the forces of nature such as wind, fire, flood, and earthquakes.

### Project Experience

#### PROJECTS

- Belle Heth Elementary School new construction, Radford, VA
- Cave Spring Elementary School additions and renovations Roanoke County, VA
- East Salem Elementary School additions, Salem, VA
- Fallon Park Elementary School new construction, Roanoke, VA
- Green Valley Elementary School additions and renovations, Roanoke County, VA
- Masons Cove Elementary School new construction, Roanoke County, VA
- Morningside Elementary School classroom addition and evaluations of structural crack in existing building, Roanoke, VA
- Mount Pleasant Elementary School additions and renovations Roanoke County, VA
- Round Hill Elementary School expansion and renovation, Roanoke, VA

## Structural Engineer

Jay F. Kinder, Jr., PE

**Registered Professional Engineer** - VA

### Professional Affiliations & Awards:

Virginia Structural Engineers Council  
Consulting Engineers Council of Virginia  
American Consulting Engineers Council  
American Society of Civil Engineers

### Education

Virginia Tech, Bachelor of Science in Civil Engineering, 1979



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Amy Hegarty is a Principal with Food Service Consultants and has 30 years of foodservice experience and has been with Foodservice Consultants Studio (FCS) since 2007. She is NCIDQ certified and a Certified Interior Designer (CID) in the State of Virginia. Amy was a conference speaker for School Nutrition Association of Virginia and Foodservice Consultants Society International. She will work with the AE Team, Roanoke City Public Schools, and any other constituents to address all foodservice needs during the project. Amy grew up in Roanoke before moving to Bedford County.

**Project Experience**

**PROJECTS**

- Fallon Park ES, Roanoke City, VA
- Baldwin ES, Manassas, VA
- Belmont ES, Prince William County, VA
- Colonial Beach ES, Colonial Beach, VA
- Colonial ES, Botetourt County, VA
- Danville Public Schools Feasibility Study, VA
- Dumfries ES, Prince William County, VA
- E.C. Glass HS, Lynchburg, VA
- Glenvar HS, Roanoke County, VA
- Hugh K. Cassell New ES, Augusta County, VA
- McHarg ES, Radford, VA
- Riverheads ES, Augusta County, VA
- Wilson ES, Augusta County, VA

**Food Service Consultant**

Amy E. Hegarty, CID, ASID, CFSP, FCSI

**Professional Affiliations:**

Foodservice Consultants Society International  
 American Society of Interior Designers (ASID)  
 Food Consultants Society International ICON  
 American Society of Interior Designers, Virginia Chapter  
 Certified Food Service Professional (CFSP)  
 ServSafe Food Protection Manager

**Awards:**

Top Achiever Award from Foodservice Equipment & Supplies magazine (2019)

**Education**

Virginia Commonwealth University, Bachelor of Fine Arts in Interior Design, 1993





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**LAWRENCE PERRY & ASSOCIATES**  
Consulting Engineers

## Rodney D. Fanning, PE

President/Principal-in-Charge



### Firm

Lawrence Perry & Associates, Inc.

### Education

Bachelor of Science, Mechanical Engineering  
Virginia Polytechnic Institute and State University, 1991  
Master of Business Administration  
Virginia Polytechnic Institute and State University, 1992

### Registrations

PE, Virginia, 0402034568  
PE, North Carolina, 050322  
PE, West Virginia, 24103  
PE, Tennessee, 123929

### Years in Practice/Years at LPA

29 / 29

### Bio

Rodney joined LPA in 1994 and was named President of LPA in 2020 after serving as Vice President for ten years prior.

He will lead the coordination and periodic design reviews with the team and will oversee the successful completion of the project.

Rodney is a member of ASHRAE and is a Certified Energy Manager and Certified Green Building Engineer with the Association of Energy Engineers

### Project Experience--Virginia Public School Systems

**Cave Spring Elementary School; Green Valley Elementary School; Mt. Pleasant Elementary School, Roanoke County**  
Renovations of Three Schools

**Mason's Cove Elementary School, Roanoke County**  
New Facility

**School Security Provisions, Roanoke County**  
Six Elementary, Four Middle, Two High Schools

**William Byrd High School, Roanoke County**  
Renovations 2010, 2016

**Bassett High School, Henry County**  
Six Phases of HVAC & Lighting Renovations

**Stanleytown Elementary School, Henry County**  
HVAC Replacement

**G. W. Carver Elementary School, Henry County**  
Kitchen Addition & Cafeteria Renovation

**Meadow View Elementary School, Henry County**  
New Facility

**Magna Vista High School, Henry County**  
HVAC Renovation; Warrior Tech Center Renovation

**Christiansburg High School, Montgomery County**  
Renovation & Addition

**Auburn Middle School, Montgomery County**  
Renovation of Former High School

**Auburn High School, Montgomery County**  
New Facility

**Stuarts Draft High School, Augusta County**  
Renovation

**Wilson Memorial High School, Augusta County**  
Renovation

**Martinsville High School, Martinsville**  
Renovation



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**LAWRENCE PERRY & ASSOCIATES**  
Consulting Engineers

## Richard C. Hughes, PE, CBCP

Vice President/Project Manager



### Firm

Lawrence Perry & Associates, Inc.

### Education

Bachelor of Science, Mechanical Engineering  
Virginia Polytechnic Institute and State University, 2003

### Registrations

PE, Virginia, 0402045688

### Years in Practice/Years at LPA

19 / 13

### Bio

Rick joined LPA in 2009 and was named Vice President of the firm in 2013.

His expertise includes the performance of building modeling, economic and energy analysis, feasibility studies, as well as planning, design and preparation of contract documents. He also has extensive experience in General Construction Practices and the Design/Build Process.

He is a member of ASHRAE, the Association of Energy Engineers and is Certified Building Commissioning Professional.

### Project Experience--Virginia Public School Systems

**Cave Spring Elementary School; Green Valley Elementary School; Mt. Pleasant Elementary School, Roanoke County**  
Renovations of Three Schools

**Mason's Cove Elementary School, Roanoke County**  
New Facility

**D. G. Cooley Elementary School, Clarke County**  
Renovation

**John Kerr Elementary School, Winchester**  
New Facility

**Clarksville Elementary School, Mecklenburg County**  
New Facility

**Indian Hollow Elementary School, Frederick County**  
Renovation

**Robert E. Aylor Middle School, Frederick County**  
New Facility

**James Wood High School, Frederick County**  
Renovation

**Riverheads High School, Frederick County**  
Central Plant Replacement

**Buffalo Gap & Riverheads Middle Schools, Augusta County**  
New Facilities

**William Monroe Middle & High Schools, Greene County**  
Additions & Renovations

**George Washington High School, Danville**  
Renovation & Addition

**Fauquier High School, Fauquier County**  
Four Phases of Renovations

**Harrisonburg High School, Harrisonburg**  
New Facility

**Pulaski County High School-Career & Technical Center**  
Welding Lab Renovation & New Switchgear



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



**LAWRENCE PERRY & ASSOCIATES**  
Consulting Engineers

## Michael G. Wolfe, CPD

Plumbing Department Manager



### Firm

Lawrence Perry & Associates, Inc.

### Education

Bachelor of Science, Civil Engineering  
Virginia Polytechnic Institute and State University, 1986

### Years in Practice/Years at LPA

32 / 19

### Bio

Mike Wolfe joined LPA in 2003. He has been involved in the design of plumbing and fire protection systems for over fifteen years; has eleven years prior experience in the engineering field as computer drafting supervisor.

Mike is a member of the American Society of Plumbing Engineers (ASPE) and is a Certified in Plumbing Design by ASPE

### Project Experience--Virginia Public School Systems

**Cave Spring Elementary School & Green Valley Elementary School; Roanoke County**  
Renovations

**Mason's Cove Elementary School, Roanoke County**  
New Facility

**William Byrd High School, Roanoke County**  
Renovations 2010, 2016

**Indian Hollow Elementary School, Frederick County**  
Renovation

**D. G. Cooley Elementary School, Clarke County**  
Renovation

**Hugh K. Cassell Elementary School; Riverheads Elementary School, Augusta County**  
New Facilities

**Meadow View Elementary School, Henry County**  
New Facility

**John Kerr Elementary School, Winchester**  
New Facility

**Riverheads Middle School, Augusta County**  
New Facility

**Auburn Middle School, Montgomery County**  
Renovation of Former High School

**Auburn High School, Montgomery County**  
New Facility

**James Wood High School, Frederick County**  
Renovation

**Bassett High School, Henry County**  
Six Phases of HVAC & Lighting Renovations

**Wilson Middle School, Wilson Memorial High School; Stuarts Draft High School, Augusta County**  
Renovations

**Martinsville High School, Martinsville**  
Renovation



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



**LAWRENCE PERRY & ASSOCIATES**  
Consulting Engineers

## Winston A. Matthews, PE

Principal/Electrical Department Manager



### Firm

Lawrence Perry & Associates, Inc.

### Education

Bachelor of Science, Electrical Engineering  
Virginia Polytechnic Institute and State University, 1999

### Registrations

PE, Virginia, 0402044469  
PE, North Carolina, 47465  
PE, West Virginia, 23182  
PE, Tennessee, 123116  
PE, Maryland, 54897

### Years in Practice/Years at LPA

19 / 10

### Bio

Winston joined LPA in 2012 and was named Manager of the Electrical Department in 2018. He became a Principal of the firm in 2019.

His expertise includes the design of lighting systems, normal and emergency power distribution systems, low voltage communications systems, and fire alarm systems while his experience includes the investigation, assessment, planning, design, and contract administration procedures.

### Project Experience--Virginia Public School Systems

**Indian Hollow Elementary School, Frederick County**  
Renovation

**Robert E. Aylor Middle School, Frederick County**  
New Facility

**William Monroe Middle School, Greene County**  
Addition/Renovation

**Buffalo Gap & Riverheads Middle Schools, Augusta County**  
New Facilities

**James Wood High School, Frederick County**  
Renovation

**William Monroe High School, Greene County**  
Addition/Renovation

**George Washington High School, Danville**  
Renovation & Addition

**Bassett High School, Henry County**  
Six Phases of HVAC & Lighting Replacements/Upgrades

**Bassett High School, Henry County**  
New Bengal Tech Academy

**Pulaski County High School-Career & Technical Center**  
Welding Lab Renovation & New Switchgear

**Patrick Henry High School, Roanoke City**  
Fieldhouse

**Christiansburg High School, Montgomery County**  
Renovation & Addition

**Christiansburg High School, Montgomery County**  
Baseball & Softball Improvements

**Western Albemarle High School, Albemarle County**  
New Green House

**Buford Middle School, Charlottesville**  
Science Classrooms Renovation



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## KEITH PEHL P.E.

CEO  
Electrical Engineer

### ABOUT ME

PROFESSIONAL REGISTRATION: Virginia 0402019671

YEARS OF EXPERIENCE: 39 Years

YEARS WITH OPTIMA: 31 Years

### EDUCATION

The University of North Carolina at Charlotte | MBA | North Carolina State University | Bachelor of Science - Electrical Engineering

### CONTACT ME

704.338.1292

kpehl@optimaengineering.com

1927 S. Tryon St., Ste 300  
Charlotte, NC 28203

### ABOUT ME


Keith is the CEO and Founder of Optima Engineering, PA. Based in North Carolina with offices in Charlotte, Raleigh, and Asheville, Optima has provided high-quality M/E/P engineering and sustainable design consulting services to architects and design professionals throughout the Southeast for over three decades. With nearly 40 years of experience as an electrical engineer, and registrations in over 30 states, Keith is a strong advocate for sustainable and Net Zero design in communities nationally.

### PROJECT EXPERIENCE

- Apex Friendship High School
- Cabarrus County High School
- CMS Harding University High School Add/Reno
- CMS Northwest School of the Arts
- CMS Palisades (Olympic Relief) High School
- CMS South Meck Ardrey Kell Relief High School
- CMS West Charlotte High School Replacement
- Horry County Schools
- Jones County K-12 School
- Montgomery County High School/Early College
- Montgomery County High School/Early College
- North Moore High School Addition
- Robeson County K-8 School
- Sullivan County High School



6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



**JOHN MATHEWS P.E.**  
Principal In-Charge  
Mechanical Engineer

**CREDENTIALS**


PROFESSIONAL REGISTRATION: North Carolina 034468

YEARS OF EXPERIENCE: 25 Years

YEARS WITH OPTIMA: 6 Years

**EDUCATION**

University of Tennessee | Bachelor of Science - Mechanical Engineering



**MORGAN GUNTER P.E.**  
Electrical Engineer  
Project Manager

**CREDENTIALS**

PROFESSIONAL REGISTRATION: North Carolina 048210

YEARS OF EXPERIENCE: 9 Years

YEARS WITH OPTIMA: 9 Years

**EDUCATION**

University of North Carolina at Charlotte | Bachelor of Science - Electrical Engineering

**ABOUT ME**

John Mathews, P.E., LEED AP, is a mechanical engineer with a breadth of experience across many sectors including government, healthcare, mission critical, and life science — with a focus on pharma and laboratory — facilities. In addition to his technical expertise, he has strong project management skills and is a trusted resource for interdisciplinary coordination during both project development and design.

**PROJECT EXPERIENCE**

- Jones County K-12 School
- Ahoskie Elementary School
- Robeson County K-8 School
- Erwin Elementary School
- Johnsonville School Cafeteria
- NW Harnett Elementary School
- Bladen County K8 School
- Washington County K-12
- Pamlico County High School

**ABOUT ME**

Morgan is an electrical engineer with experience in lighting, control systems, and power distribution using REVIT, AutoCAD, and BIM planning. His application remains sensitive to cost while giving designed systems high performance without detouring from a budget. He has understanding many project types including, but not limited to, government, mission critical, and commercial, while continuing to add to his wide range of design abilities. His troubleshooting expertise with knowledge of arc-flash analysis, field surveys, and communications make him a well-versed engineer.


**PROJECT EXPERIENCE**

- Northwest School of the Arts Reno
- Penderlea K-8 School
- Jones County K-12 School
- Ahoskie Elementary School
- Robeson County K-8 School
- Erwin Elementary School
- Bladen County K8 School
- Washington County K-12





6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



DREW  
LANDEN P.E.

Mechanical Engineer

CREDENTIALS


PROFESSIONAL REGISTRATION: North Carolina 040316

YEARS OF EXPERIENCE: 15 Years

YEARS WITH OPTIMA: 7 Years

EDUCATION

NC State University | Bachelor of Science - Mechanical Engineering



GEORGE  
FOWLER P.E.

Plumbing & Fire Protection Engineer

CREDENTIALS

PROFESSIONAL REGISTRATION: North Carolina 026023

YEARS OF EXPERIENCE: 28 Years

YEARS WITH OPTIMA: 19 Years

EDUCATION

University of North Carolina at Charlotte | Bachelor of Science - Mechanical Engineering

**ABOUT ME**

Drew Landen, P.E., LEED AP O+M is a mechanical engineer with extensive experience in HVAC design, project management, energy modeling, building assessments, commissioning and energy auditing in multiple market sectors. His experience includes working with building owners, contractors, architects, and municipalities. His extensive knowledge of USGBC LEED requirements, International codes, and ASHRAE standards & Procedures for Commercial Energy Audits makes him a vital part of our engineering team.

**PROJECT EXPERIENCE**

- Penderlea K-8 School
- Jones County K-12 School
- Governor Morehead School
- Ahoskie Elementary School
- Robeson County K-8 School
- Erwin Elementary School
- NW Harnett Elementary School
- Bladen County K8 School
- Washington County K-12
- Pamlico County High School
- Robeson Career & Technical High School
- Hoke County High School

**ABOUT ME**

George Fowler, III, P.E., LEED AP, is a Senior Plumbing & Fire Protection Engineer with nearly three decades of experience. He has extensive design experience with large solar thermal projects, compressed air, medical gas distribution, natural gas, many other systems. George's responsibilities include project coordination, client relations, construction administration, and quality control.

**PROJECT EXPERIENCE**

- CMS North K-8 School
- Sullivan County Middle School
- Sullivan County High School
- CMS Davidson K8 Conversion
- Robeson County K-8 School
- Fort Mill Middle School #6
- NW Harnett Elementary School
- Bladen County K8 School
- Washington County K-12





6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## Robert E. Lasater, Jr., PE

Principal

### EDUCATION

Master of Science in Civil Engineering,  
NC State University

Bachelor of Science in Civil Engineering,  
NC State University

### PROFESSIONAL REGISTRATIONS

Professional Engineer in NC, SC, and VA

### AFFILIATIONS

American Concrete Institute (ACI)

American Council of Engineering  
Companies (ACEC)

American Institute of Steel Construction  
(AISC)

Structural Engineers Association  
of North Carolina

Bobby has more than 35 years of structural engineering experience. A principal of the firm, he has served as Engineer of Record on 250+ projects throughout North Carolina and is regarded as a design specialist for higher education and K-12 projects. Bobby typically serves as the lead on this type of project, providing oversight and leadership from conception through completion. With broad-based experience and a knack for relaying information in a clear and concise manner, he often acts as a trusted mentor for junior engineers. In addition, Bobby has served on the North Carolina Licensing Board for General Contractors for the last 10 years.

### RELEVANT EXPERIENCE

- Midway High School, Newton Grove, NC
- Union High School, Rose Hill, NC
- Felton Grove High School, Apex, NC
- Weldon High School, Weldon, NC
- Fuquay-Varina High School, Fuquay-Varina, NC
- Garner Magnet High School, Garner, NC
- Willow Springs High School, Fuquay-Varina, NC
- Rolesville High School, Rolesville, NC
- Northern High School, Durham, NC
- East Bladen High School, Elizabethtown, NC
- West Bladen High School, Bladenboro, NC
- First Flight High School, Kill Devil Hills, NC
- Seaforth High School, Pittsboro, NC
- Cedar Ridge High School, Hillsborough, NC
- Overhills High School, Spring Lake, NC
- Jesse C. Carson High School, China Grove, NC
- East Chapel Hill High School, Chapel Hill, NC
- Harnett Central High School Addition, Angier, NC
- Western Harnett High School Addition, Lillington, NC
- Overhills High School, Spring Lake, NC
- Athens Drive Magnet High School Athletic Facilities Improvements, Raleigh, NC
- Clayton High School Auditorium, Clayton, NC





6.5.2 The experience of the firm or consortium of firms making the proposal and the key principles involved in the proposed project, including experience with projects of comparable size and complexity. The length of time in business, business experience, public sector experience, and other engagements of the firm or consortium of firms.



## Security Consultant

Craig S. Gundry, PSP, cATO, CPS



Craig is the Critical Intervention Services Vice President of Special Projects and consultant with specialized focus on managing risks of mass homicide. During his 21-year tenure with CIS, Craig supervised consulting and training initiatives and served as the architect of many of the company’s flagship risk management programs including the Guardian SafeSchool Program®, Anti-Terrorism Officer Division, and Guardian SafeWorkplace Program™.

As a security consultant, Craig has provided expert assistance to a diverse range of schools, colleges, corporations, non-profit organizations, and government agencies. In addition to academic institutions, some of his clients include the American Automobile Association, Carpenter Technology Corp, CF Industries, Corinthia Hotels, European Central Bank, European Commission, European External Action Service, European Parliament, Florida Blue/GuideWell, Highway Transport, Nashville General Hospital, Northrop Grumman, Organization for Security and Cooperation in Europe, TECO Energy, U.S. Department of Justice, and U.S. DoD.

Craig is court-approved as an expert witness on school security, active shooter response, physical security, risk management, and emergency management. He was also a technical committee member for the revision of ASIS International’s WVPI-2020/AA, Workplace Violence and Active Assailant standard.

Craig is the lead instructor for the S2 Institute’s School Security Planning Workshop, School Protection Officer (SPO) course, Anti-Terrorism Officer course, and advanced seminars on security risk assessment, physical security analysis and design, active shooter preparations, and emergency response planning. In addition to training educators and faculty members, his previous students include over 5,000 security and public safety professionals from over 70 nations. He also lectures on security topics for John Jay College of Criminal Justice, Executive Security International, and presents PSP® exam preparation courses for ASIS International. Craig is also a TEDx presenter and frequent speaker at conferences worldwide on topics related to managing risks of mass homicide.

Craig is a board-certified Physical Security Professional (PSP®) through ASIS International and possesses additional certifications including Certified Anti-Terrorism Officer (cATO®), Certified Protection Specialist (CPS), and Kirkpatrick Partners Bronze Certification.



6.5.3 The identity of any firm that will provide design, construction, and completion guarantees and warranties and a description of such guarantees and warranties.

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The project will be bonded through Avis Construction. Work performed on the project will be covered by a one-year warranty with longer duration warranties (for example, an extended roof warranty) provided by the respective subcontractor and material manufacturer. Avis' bonding will be handled by the Marsh McLennan Agency through the Travelers Casualty and Surety Company of America. A copy of the bonding reference from the Marsh McLennan Agency can be found in Volume II, page 3.

6.5.4 The names, addresses, and telephone numbers of persons within the firm or consortium of firms who may be contacted for further information.

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**Primary Point of Contact**

Troy Smith - President  
 Avis Construction Company, Inc.  
 521 Rutherford Ave NE,  
 Roanoke, VA 24016  
 (540) 798-8653  
 smitht@avisconstruction.com

Robbie Ferris, AIA, REFP, LEED AP - CEO/President  
 Firstfloor Roanoke | Sfl+a Architects  
 333 Fayetteville St., Ste 225  
 Raleigh, NC 27601  
 (919) 610-2251  
 rferris@sfla.biz

Mike Woolwine, President  
 Hughes Associates Architects & Engineers  
 656 Elm Avenue, SW  
 Roanoke, VA 24016  
 (540) 580-6784  
 mwoolwine@hughesae.com

Asher McGlothlin, LEED AP BD+C, WELL AP - Project Coordinator  
 Sfl+a Architects  
 333 Fayetteville St., Ste 225  
 Raleigh, NC 27601  
 (276) 210-4836  
 amcglathlin@sfla.biz



## 6.8 Project Benefit & Compatibility

6.8



## 6.5 QUALIFICATIONS & EXPERIENCE



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6.5.5 A current or most recently audited financial statement of the firm or firms and a financial statement of each partner with an equity interest of twenty percent or greater.

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Financial statements included in Volume II on pages 4-39.

6.5.6 Any persons known to the proposer who would be obligated to disqualify themselves from participation in any transaction arising from or in connection to the project pursuant to the Virginia State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2.

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After careful review of the Virginia State and Local Government Conflict of Interests Act, Chapter 31 of Title 2.2, Avis/Firstfloor is unaware of any person associated with our team who would be obligated to disqualify themselves from participation in any transaction arising from or in connection with this project.

## 6.6 PROJECT CHARACTERISTICS



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Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

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While our team is submitting one comprehensive proposal, we know that these three schools are unique and deserve their own thoughtful consideration. These projects provide a great opportunity for Roanoke County Public Schools, and our team is dedicated to working with you and the Roanoke County community to ensure we arrive at a design for each of these projects that reinforces the C-Change Framework, and supports RCPS in its goal to prepare every student with Opportunity Ready skills.

We have conceptually designed each of these schools while carefully considering your programmatic needs as outlined in the space programming documents published in your RFP. We look forward to having the opportunity to work with you to further refine the design strategy for each of these schools, to ensure they support RCPS's Vision of "Preparing every student, in every school, and in every classroom to be Opportunity Ready."

For plans, renderings, and more detailed information regarding our design for these projects, please see Volume II, pages 42-70.



Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.1 Identify and fully describe any work to be performed by the School Board.

In the interest of promoting a collaborative building venture, it is important to clarify the important roles that each team member must perform to ensure the ultimate success of the project. To that end, Firstfloor Roanoke will rely on timely and constructive input from the Roanoke County Public Schools (RCPS) throughout the design, building, and occupancy phases of the project. The next step will be to select a qualified PPEA proposal to move forward to the Detail Phase, which will conclude with the RCPS approving the construction contract.

During the design and construction phases RCPS, with assistance from the entire project team, should consider establishing community relations goals that will guide the board, staff and other team members as we solicit community involvement and engage district staff, parent groups, and other agencies. We look forward to working with you to develop a community engagement strategy.

RCPS will act as the primary point of contact with the media to ensure a smooth flow of information to and from school users and the broader community. As part of this communication plan, Firstfloor will periodically provide progress reports at regularly scheduled board meetings.

The next step will be to select a qualified PPEA proposal to move forward to the Detail Phase, which will conclude with RCPS approving the construction contract. The Firstfloor team is committed to working collaboratively with Roanoke County Public Schools to achieve your goals and get the most out of the PPEA process. Communication is key for any project to be successful, and we look forward to having the opportunity to work with you and the residents of Roanoke County to ensure these schools are sources of pride for the community for years to come. In the interest of promoting a collaborative venture, it is important to clarify the important roles that each team member must perform to ensure the ultimate success of the project. To that end, Firstfloor will rely on timely and constructive input from Roanoke County Public Schools (RCPS) throughout the design, building, and occupancy phases of the project.

To further foster collaboration and assure that the project is delivered on-time, we request that the School Board:

- Provide reasonable access to the proposed sites.
- Appoint a design advocacy group to work with our team on the project's design to ensure that the project meets the goals of the community and RCPS while staying within the project budget.
- Establish a preferred method of communication and appoint a primary point of contact for all issues pertaining to the project.

Our team has a wealth of experience in seeking community input on major projects, with one of our team members, Asher McGlothlin, having led the community engagement efforts for a similar large-scale PPEA project located in Southwest Virginia.

## 6.6 PROJECT CHARACTERISTICS



Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.2 Include a list of all federal, state, and local permits and approvals required for the project and a schedule for obtaining such permits and approvals.

The construction of the new CTE Center, Cundiff and Glen Cove will require the following state permits:

- Virginia Stormwater Management Program (VSMP) permit issued by the Virginia Department of Conservation and Recreation (VDCR).
- Land Use permit issued by the Virginia Department of Transportation (VDOT).
- Virginia Department of Environmental Quality (VDEQ).
- Virginia Department of Health
- Commonwealth of Virginia Department of Education
- Building, Structural, Mechanical, Electrical, Plumbing and Fire Protection Permits
- Virginia DEQ Storm water permitting (SWPPP)
- Erosion and sediment control plan

The construction of will require the following permits issued by the Roanoke County:

- Land Disturbance Permit
- Conditional Use Permit
- General Building Permit
- Demolition Permit
- Certificate of Occupancy

The construction of Glen Cove and Cundiff schools will require the following permits issued by Roanoke County:

- Building Permit for Temporary Trailers
- Land Disturbance Permit
- General Building Permit
- Demolition Permit
- Certificate of Occupancy

The list identified above represents typical permit requirements for the state and each local jurisdiction. Any other permits or approval processes required by the Commonwealth or local governments will be stated in the general conditions of the project specifications.

6.6 PROJECT CHARACTERISTICS



Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.3. Identify any anticipated adverse social, economic, and environmental impacts of the project. Specify the strategies or actions to mitigate the known impacts of the project.

Given the nature of this project and the level of public support shown to date, we do not anticipate any adverse social, economic, or environmental impacts arising from the construction of these schools. It should be noted that the RCPS and district staff have done a significant amount of front end work in defining and advancing the planning of these project sites. We will contract to have a traffic study completed, if required, for any or all of the projects.

Our team has thoroughly reviewed Roanoke County Public Schools' 2014 Comprehensive Plan and 2021-2026 Strategic Plan, as well as Roanoke County's 2005 Community Plan, the draft of the Roanoke County 200 Plan, and the Roanoke County Design Handbook. Following our review of these documents and the level of support shown to date, we do not anticipate any adverse social, economic, environmental and transportation impacts arising from the construction of these schools. We commend the significant amount of front-end work performed by RCPS and district staff in defining and advancing the planning of these project sites. Our team is well aware of the importance sustained community support will play in the success of these projects, and we look forward to working with you on developing a community engagement strategy that will work best for these projects. The Roanoke Comprehensive Plan and the Roanoke County Public Schools Comprehensive Plan both state the importance of community engagement. Our team has extensive experience in receiving community input on the design of similar school facilities, and we look forward to working with the residents of Roanoke County to foster support from the community throughout the development of these projects.







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Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.4. Identify the projected positive social, economic, and environmental impacts of the project.

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Accelerating the construction of the proposed projects will save the tax payers millions of dollars as outlined below. Constructing the proposed projects will save tens of millions of dollars over the life of the buildings and will provide social and educational benefits for generations to come. The buildings can be used as a teaching tool with curriculum built around the building. Students and the public will be able to access the building dashboard in the classroom as well as from home to collect data on how the building operates. The engineering, building trades and other curriculum areas at new CTE Center will have direct access to mechanical and electrical system operations of the building community whole. It is not an overstatement to suggest that such a robust and decisive building campaign will have a significant positive impact on life in these deeply affected communities.

The very nature of building these school facilities will be an economic boon to the region. Local businesses will be asked to participate, by supplying building materials, or providing skilled labor, or offering needed services. Long after the construction activity subsides, the region will benefit from the acquisition of new facilities at a favorable cost.

No less significant is the potential to offset the environmental impact of this project by incorporating many green building practices in the design, construction, and operation of these facilities. The Firstfloor team is committed to the highest level of building performance. We are prepared to lead the RCPS and the community at large toward a more sustainable building program, whether the goal is a LEED certified building or net-zero energy performance. The three schools combined will reduce energy costs by almost \$170,000 in the first year, saving approximately \$20,000,000 million over 40-years. This will allow the schools to meet the "Net-Zero Schools" recommendation in the 2021 Guidelines for School Facilities in Virginia's Public Schools. A zero energy use building would not only benefit the environment, but would benefit the district's bottom line as well. Whether the goal is net-zero and/or LEED Gold, Firstfloor can deliver the best school for Roanoke County Public Schools.

The implementation of renewable energy systems such as geothermal heat pumps and solar photovoltaic panels have the potential to result in net first cost savings, while also lowering RCPS's operating costs. Our design strategy will reduce operating, saving millions of dollars over 40 years. For more information on these savings, please see Volume II, page 74.

We will put the plumbing, mechanical, electrical, and site construction out for public bidding, which should result in reduction in the cost of these scopes. Since these scopes represent approximately 35% of the project cost. This should result in a significant reduction in project cost compared to our competition. These savings are genuine and will be utilized to improve the quality of the building.

We are proposing a project that will allow us to obtain approximately millions in rebates that can be utilized to improve the quality of the building and reduce operating costs. In addition, we know that "time is of the essence" with these projects and we will accelerate the design and construction, saving approximately 5% on inflation and general conditions. See pages 41, 71-73 of our Volume II for the project budgets and project schedule.

All of these strategies will allow us to enhance the quality of each of the school projects, furthering the social, economic, and environmental impacts that these projects will have on Roanoke County.



Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.4. Identify the projected positive social, economic, and environmental impacts of the project.

Our team is committed to working closely with you to ensure that these projects have the greatest positive impact for Roanoke County Public Schools, and the Roanoke County community.

Roanoke County's 2005 Community Plan

We have carefully analyzed Roanoke County's 2005 Community Plan, in which Roanoke County set five Community-Wide Themes:

- “1. Regionalism - The County must take the lead in finding new and innovative ways to look beyond its political boundaries for solutions to the challenges of the next century.
2. Sustainability - Recognizing that our natural systems are vital to providing both economic needs and quality of life for all citizens, sustainable development has been incorporated into County planning - meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.
3. Community Identity - Roanoke County citizens identify very closely with their neighborhoods and school districts. Efforts must be made to preserve the elements of community identity that provide gathering spaces for the exchange of information and support.
4. Scenic Beauty - The mountains that surround the County provide a sense of place and are a source of beauty, recreational activity and inspiration. Steps must be taken to develop sound conservation policies for our own dwindling farm lands, mountainsides and ridges, rivers and streams, soil and air. These resources are considered by many to be our region's greatest asset.
5. Quality of Life - The citizens of Roanoke County recognize that there exists a fragile balance between economic growth and prosperity and the preservation of a way of life that is cherished by many. Proactive steps must be taken to manage growth in a positive way - to act conservatively and with deliberation when making decisions that will affect our high quality of life and that of our children's children. ”

By working closely with you and the Roanoke County community, our team thoroughly believes we can deliver schools that serve and celebrate Roanoke County by responding to each of these themes. We know that Roanoke County residents identify closely with their neighborhoods and school districts, and we look forward to working with you to ensure that these schools are pillars of their respective neighborhoods for years to come.

In addition to these community-wide themes, each of the focus groups developed a vision statement that reflects their discussions about the future of Roanoke County. Our team is particularly inspired by the Public Education focus group's goal of “providing world-class educational services to all citizens. The educational focus is to prepare learners for the work place and to develop in them characteristics of responsible, productive members of society for whom learning is a lifelong endeavor.”

The Comprehensive Plan also states Roanoke County's goal “To achieve the highest possible level of citizen participation in all elements of Roanoke County government by keeping our citizens informed and educated on public policy issues and by maintaining an open, democratic, and easily accessible governmental system.” Our team is highly skilled in managing a thorough community-engagement process. In the past, we have implemented strategies including:

- Publicly available surveys
- Focus Groups composed of school system staff, students, and community members
- Public meetings held in-person and virtually

We look forward to discussing the various methods for community involvement that we have at our disposal, and to working with you to develop a process that will work best for providing a voice to all community members on these projects.



Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.5. Identify the proposed schedule for the work on the project, including the estimated time for completion.

For a more detailed schedule, please see Volume II, page 41.

6.6.6. Propose allocation of risk and liability for work completed beyond the agreement's completion date and assurances for timely completion of the project.

The completion date presented in this proposal will be accomplished provided all parties' stay focused on the schedule and make decisions in a timely manner. Avis/Firstfloor has identified the schedule risks along with risk mitigation plans for the timely completion of the project. Avis/Firstfloor, through its general contractors, will provide performance and payment bonds for the entire amount of the contract.

#### **RISKS:**

##### **New CTE Center**

1. Bad soils: We will require site contractors to dig test pits to evaluate soils and we will bid soils unclassified.

##### **General Risks:**

1. Supply chain availability of materials - we will order all long lead time items early to receive them in time to complete our work on schools. Avis/Firstfloor along with RCPS will work to identify long lead items and remain flexible as items are delayed beyond our control.
2. Permitting: We will work review agencies at the project earliest stages to ensure there are no surprises when we submit for final projects.
3. Inflation - We will build adequate contingencies in our preliminary pricing to compensate for inflation. Once a price is agreed upon, all inflation risk will be on Avis/Firstfloor and its subconsultants.

6.6.7. State assumptions related to ownership, legal liability, law enforcement, and operation of the project and the existence of any restrictions on the School Board's use of the project.

Avis/Firstfloor is proposing this as a turn-key project with Avis/Firstfloor obtaining financing which should lower the total cost of ownership. During the construction phase of the project, the ownership could be the Avis/Firstfloor joint venture or RCPS, whichever is deemed to be the most effective at accomplishing the goals of RCPS and Roanoke County.

RCPS or a related legal entity will be the operator of the projects and will carry its own insurance. As such, RCPS will assume responsibility for all expenses pertaining to operating the projects once these projects are complete. Avis/Firstfloor will utilize its team of industry experts to ensure that each of these projects is sustainable and energy efficient, dramatically reducing operating costs over the lifetime of these projects.

During the Design-Build phase of this project, the Firstfloor team will assume the legal liabilities on the project site typically associated with our business practices while engaged in the project. At the project's conclusion, full responsibility for the projects and their respective sites will return to RCPS. Upon occupancy, RCPS will be responsible for law enforcement, building maintenance and janitorial services.

We assume that these projects will take place on sites wholly owned by Roanoke County Public Schools and that adequate infrastructure, including water, electricity, and sewer, is available.

## 6.6 PROJECT CHARACTERISTICS



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Provide a description of the project, including the conceptual design. Describe the proposed project in sufficient detail so that the type and intent of the project, the location, and the communities that may be affected are clearly identified.

6.6.8. Provide information relative to phased or partial openings of the proposed project prior to the completion of the entire work.

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Given the expedited schedule Avis/Firstfloor envisions for these projects, we do not anticipate that the projects will require the need for separate phases. The schedule we have provided will allow Roanoke County Public Schools to occupy these schools as soon as possible. If RCPS would like to discuss the possibility of a phased approach to the construction of these projects, we are happy to work collaboratively with you to develop a schedule and approach that works best for you. We have assumed that we will provide mobile units for the elementary school students to occupy while renovations are taking place

For a more detailed schedule, please see Volume II, page 41.

6.6.9. List any other assumptions relied on for the project to be successful.

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There are no assumptions at this point in time.

6.6.10. List any contingencies that must occur for the project to be successful.

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Firstfloor has developed many large public buildings in less time than conditions permit for this project. We have developed projects for public agencies that could not obtain conventional governmental financing. We have encountered almost every problem imaginable, including bankrupt sub-contractors and bankrupt bonding companies. While we do not anticipate any such eventualities for this project, we have learned to manage intensely and be prepared for the challenges each project presents. Based on this experience, we have built project contingencies into this proposal and are ready to begin work immediately. If the elementary schools are not completed on time, students will continue to go to school in the on-site construction trailers until construction is complete. If the new CTE center is not finished on time, students will continue to go to school in the building they are currently in.



## 6.7 Project Financing

6.7





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6.7.1. Provide a preliminary estimate and estimating methodology of the cost of the work by phase, segment, or both per Section 6.1.2.

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Based on construction estimates provided by consultants to RCPS, we propose spending \$80 million on the CTE Center and \$50 million on the combined on renovations/additions to W.E. Cundiff and Glen Cove, for a total of \$130 million.

The detailed budgets included in Volume II on pages 71-73 were developed as follows:

Glen Cove & Cundiff:

These estimates were developed based on experience with similar projects in Roanoke County and the surrounding Area. The projects included the William Byrd High School & Cave Spring High School.

CTE Center:

The estimate for this project is based on a the design development estimate based on a similar CTE Center currently designed by SfL+a Architects. The detailed cost estimated was adjusted to be consistent with the Roanoke market.



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6.7.2. RCPS anticipates financing the project through public funding but will consider proposals for alternative financing models. If proposing alternative financing models, submit a plan for the development, financing, and operation of the project showing the anticipated schedule on which funds will be required. Describe the anticipated costs of and proposed sources and uses for such funds, including any anticipated debt service costs. The operational plan should include appropriate staffing levels and associated costs. Include supporting due diligence studies, analyses, or reports.

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**Development Plan** - The proposed development schedule is in Volume II, page 41.

Hereunder is the entire development schedule, which includes design and construction, and an estimated project draw schedule.

**Financing Plan** - The financing plan is in Volume II, pages 75-81.

**Operation Plan** - The schools would be fully operated by the school system. Firstfloor would provide optimization of the HVAC systems for the first 3-years of occupancy and will train school system personnel on all building systems.

6.7.3. Include a list and discussion of assumptions underlying all major elements of the plan. Assumptions should include all significant fees associated with financing, given the recommended financing approach. In addition, complete disclosure of interest rate assumptions should be included. Any ongoing operational fees, if applicable, should also be disclosed, as well as any assumptions with regard to increases in such fees.

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See Volume II pages 75-81 for financing assumptions.




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6.7.4. Identify the proposed risk factors and methods for dealing with these factors.

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The Design-Build project delivery method afforded by the PPEA process allow the Avis/ Firstfloor team of industry experts to work collectively from the beginning of these projects. This sense of collaboration, combined with our commitment to engaging with RCPS and the Roanoke County community, will allow us to identify any potential problems early in the project schedule, giving us adequate time to address these problems and mitigate the risks associated with them.

Avis/Firstfloor has compiled a team of architects and engineers that are industry leaders in the design of K12 facilities. To date, the team has developed more energy-positive public schools than any firm in the nation. Together, Firstfloor and SfL+a have provided development, financial and other consulting services on 26 public-private projects representing approximately 3,000,000 square feet.

Avis Construction has a wealth of experience constructing projects in Roanoke and throughout Southwest Virginia. Avis recently completed a renovation of Cave Spring High School for RCPS that opened in the Fall of 2020. Even with the challenges to construction presented by the COVID-19 Pandemic, Avis was able to deliver this project on-time and on-budget, exhibiting their ability to be faced with difficult, unforeseen circumstances and provide innovative solutions to achieve successful project delivery. Construction Risk – The risk of constructing the schools is subject to change but is transferred to the Avis/Firstfloor team under the PPEA strategy.

6.7.5. Identify any local, state, or federal resources that the proposer contemplates requesting for the project. Describe the total commitment, if any, expected from governmental sources and the timing of any anticipated commitment. Such disclosure should include any direct or indirect guarantees or pledges of the School Board's credit or revenue.

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The school system could apply any normal federal, state, or local sources to reduce the amount of borrowed funds.

Our team has explored additional funding opportunities that may be available to RCPS, and we have included detailed information about these potential sources in Volume II, page 75-81.

While our team is confident that we can deliver these projects within the current budget RCPS has available, we have identified several sources that could increase the amount of available funding for the project. Those funding sources include:

- The Virginia Board of Education's School Construction Assistance Program
  - » URL: <https://www.doe.virginia.gov/programs-services/school-operations-support-services/facility-construction-maintenance/school-construction-assistance-program>
  - » "The School Construction Assistance Program was created at the 2022 Special Session I of the General Assembly through the 2022 Appropriation Act (i.e., Chapter 2, Item 137, Paragraph C.43). Item 137, Paragraph C.43. provides appropriations for the program in fiscal year 2023 of \$400,000,000 from the general fund and \$50,000,000 from the Literary Fund to be transferred into the School Construction Fund for the Board of Education ("Board") to award grants on a competitive basis to local school boards that demonstrate poor building conditions, commitment, and need in order for such local school boards to be able to fund the construction, expansion, or modernization of public school buildings. Any unobligated appropriation balance for this program on June 30, 2023, must be reappropriated for expenditure in fiscal year 2024 for the same purpose. Detailed information was communicated to school divisions in Superintendent's Memo 041-23.

For the last round of awards made available by this program in May of 2023, the following criteria was used for school divisions to determine the grant award amount.

- School divisions with a local composite index value below 0.3000, or contained in a locality designated with high fiscal stress were eligible to receive up to 30% of project costs.
- School divisions with a local composite value at or above 0.3000 and below 0.4000, or contained in a locality designated with above average fiscal stress were eligible to receive up to 20% of project costs.
- All other school divisions were eligible to receive up to 10% of project costs.

According to Virginia's 2022-2024 Composite Index of Local Ability-to-Pay, Roanoke County has a Composite Index of 0.3643, meaning RCPS would be eligible to receive up to 20% of project costs from this funding source, should Virginia choose to replenish this sources next year and Roanoke County submit a successful application.



6.7 PROJECT FINANCING



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6.7.6. Identify the amounts and the terms and conditions for any revenue sources.

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Sources:

- Roanoke County will contribute \$130 million plus interest. Other sources of funding are outlined in Volume II, pages 75-81.

6.7.7. Identify any aspect of the project that could disqualify the project from obtaining tax-exempt financing.

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None.

## 6.6 Project Characteristics

6.6





6.8.1 Identify who will benefit from the project, how they will benefit, and how the project will benefit the overall community, region, or state.

The students, teachers, staff, and the citizens of Roanoke County will directly benefit from the newly renovated W.E. Cundiff and Glen Cove Elementary Schools and the new Career and Technical Center.

Students and staff will benefit from these projects by utilizing positive, effective, safe, and inspiring learning environments. The schools will take advantage of modern educational tools, resulting in a higher quality education, and efficient equipment and technology, saving on energy usage and maintenance costs. The enhanced facilities will build community and foster engagement. We made sure that each school maintains its own identity and keeping its place in the community. The schools will also include safety and security features that are integrated throughout the facilities, remaining virtually unnoticeable, while still supplying added protection.

The citizens of Roanoke County will directly benefit from these projects by spending less tax dollars in maintenance costs. They will benefit from the enhancement of Roanoke County Public Schools' already excellent reputation for education, graduation rate, athletics, and student life, further making Roanoke County a significant and positive force for change in the Roanoke region and the state.

The most prominent positive impacts we anticipate are:

- Up-to-date educational facilities that will inspire learning and promote career and technical skills in Roanoke County
- Increased satisfaction and job efficiency of teachers, administrations, and faculty
- Long-lasting, energy efficient buildings with reduced life cycle costs
- Environmentally conscious facilities using the latest trends in design, equipment, materials, and operational efficiency
- Tax dollars and time saved using our team build approach
- High community support

6.8.2 Identify any anticipated public support or opposition, as well as any anticipated government support or opposition, for the project.

We would anticipate that the communities impacted by these projects would be supportive of receiving state of the art, "energy positive" buildings that can be used as a teaching tool. We don't know of any opposition for these projects.

The Avis/Firstfloor team recognizes and commends the effort put forth by RCPS and the broader community in framing a resolution to the critical and urgent need to address the three schools identified in this proposal. The \$80 million for construction of the new career and technical education center and the \$50 million for the renovation of Glen Cove and W.E. Cundiff elementary schools is indicative of the Roanoke County Board of Supervisors strong support for these projects.

While our team anticipates that the communities impacted by these projects would be supportive of receiving state of the art, "energy positive" buildings that can be used as teaching tools, we also know how important sustained public support is for any major project. We look forward to working with you on a community engagement strategy that will keep the Roanoke County community informed and up to date on the project's progress, further cultivating support for these projects.



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6.8.3. Explain the strategy and plans that will be carried out to involve and inform the general public, the business community, and governmental agencies in areas affected by the project.

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The Firstfloor project team has extensive experience in assisting school districts to facilitate community participation in order to incorporate their views and needs into the decision-making process. This will require a strong commitment by the School Board and district staff towards raising awareness about the school design and building process, listening to public views and comments about the process and acting upon this feedback.

The purpose of the community engagement strategy is to coordinate, guide and manage the district's approach to public involvement. This means supporting and enabling participation in shaping the educational programming that leads to school facilities more closely aligned to the needs and expectations of students and parents, the general public, the business community and local agencies affected by this project. RCPS has already done an amazing job in developing the C-Change Framework. We look forward to working with you to ensure that these schools embody the C-Change Framework in their design and construction.

Generally speaking, the community engagement strategy for this project will be carried out by:

- Increasing public awareness about the project and identifying opportunities to become involved in learning about and shaping the project.
- Building on existing methods of communication to ensure a smooth flow of information as the project progresses.
- Conducting public information sessions to share essential information about the school design and building process.
- Providing a comprehensive public information campaign to reach the broader community including the general public, elected officials, public agencies, businesses, and parent groups.



6.8.4. Describe the anticipated significant benefits to the community, region, or state, including anticipated benefits to the economic condition of the School Board and whether the project is critical to attracting or maintaining competitive industries and businesses to the School Board, Roanoke County, or the surrounding region.

Roanoke County Public Schools has dedicated a considerable amount of time and energy in developing the C-Change Framework with the goal of supporting deeper learning for all its students. The C-Change Framework listed on RCPS’s website states that “Schools are positive, welcoming communities built on a foundation of mutual respect and equity of opportunity.” We couldn’t agree more, and our team is committed to working with you in the creation of learning spaces that are engaging and purposeful for all of RCPS’s students.

Each of the projects included in this proposal have been designed with the goal of supporting the C-Change Framework and RCPS’s Profile of a Graduate. We take your statement that “Collaboration is a primary conduit for skill growth for students and adults” to heart. We believe that our collaboration with you on these schools will allow us together to create learning environments that promote the values of the C-Change Framework in preparing every student to be Opportunity Ready.

In addition to the benefits these schools will have on RCPS, there is also a phenomenal opportunity to enhance and support the goals of the Roanoke County Community Plan. The last update to the Roanoke County Community Plan was published in 2005. At that time, a focus group on Public Education stated that its primary goal for Roanoke was “providing world-class educational services to all citizens. The educational focus is to prepare learners for the work place and to develop in them characteristics of responsible, productive members of society for whom learning is a lifelong endeavor.” It’s inspiring to see that RCPS’s goal of preparing Opportunity Ready students reflected in the Community Plan. Roanoke County is currently in the process of creating the Roanoke County 200 Plan, which will be a major update to the county’s Comprehensive Plan. We commend Roanoke County for this effort, and we believe that the timing is perfect for these projects to be developed with close consideration of the Roanoke County 200 Plan to ensure that each of these schools supports the plan and serves as a point of pride for their respective communities for years to come.

**Mission**

“To invest in our community’s future by preparing our students with Opportunity Ready skills as defined in the RCPS Profile of a Graduate.”

**Vision**

“Preparing every student, in every school, and in every classroom to be Opportunity Ready.”





6.8.5. Describe compatibility with the local comprehensive plan, local infrastructure development plans, the capital improvements budget, or other government spending plans.

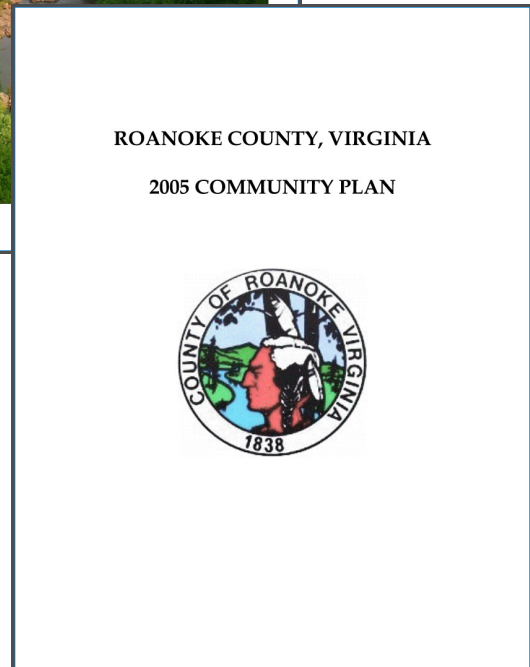
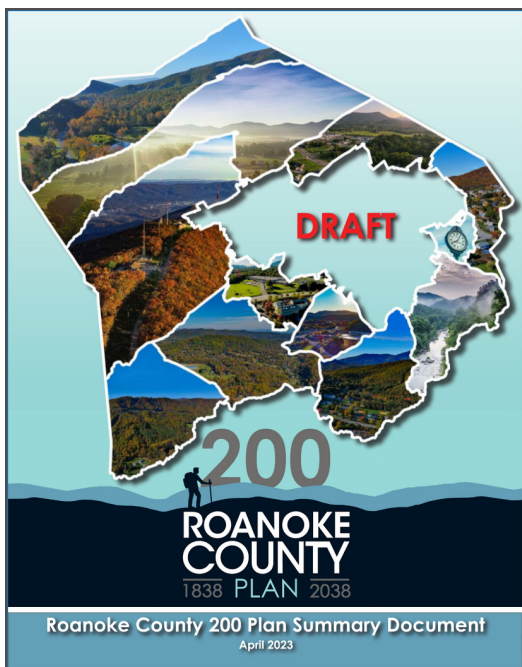
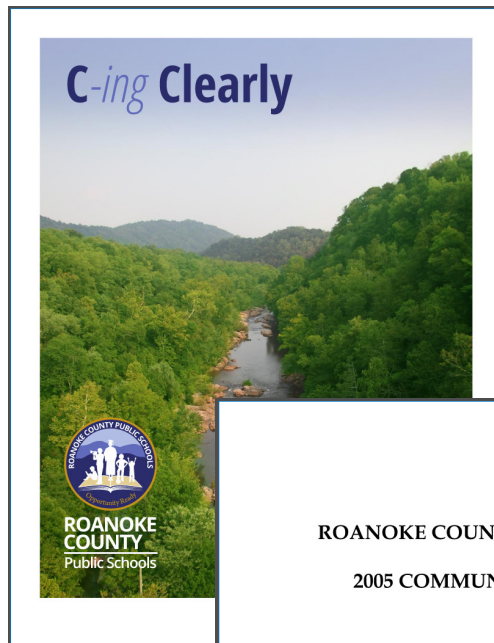
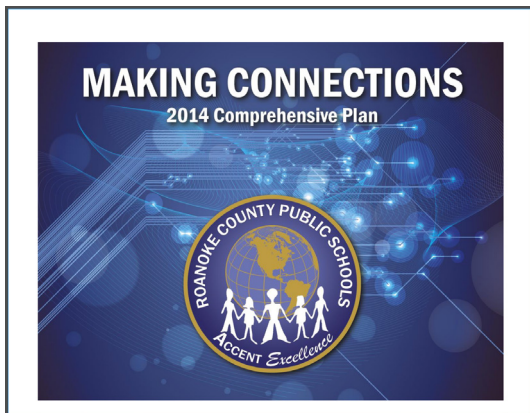
Avis/Firstfloor recognizes the effort put forth by the RCPS and the broader community in framing a resolution to the critical and urgent need to address the three schools identified in this proposal. The intent is clear, to provide high quality facilities and educational programs that meet the broad range of needs in the surrounding areas.

Our team has thoroughly reviewed Roanoke County Public Schools' 2014 Comprehensive Plan and 2021-2026 Strategic Plan, as well as Roanoke County's 2005 Community Plan, the draft of the Roanoke County 200 Plan, and the Roanoke County Design Handbook.

These projects are compatible with RCPS' Comprehensive Plan and Strategic Plan and will fulfill your Mission to "ensure quality learning experiences designed to equip all students with the skills to adapt and thrive in a changing global environment."

There will be no major impacts to the County's infrastructure and transportation plans. Our team understands how these projects must be designed, constructed, and operated consistent with all environmental, land use, building code, and design standard ordinances and regulations.

The County is the best resource regarding impacts on capital improvement and capital budget plans.





6.8.5. Describe compatibility with the local comprehensive plan, local infrastructure development plans, the capital improvements budget, or other government spending plans.

We have carefully analyzed Roanoke County's 2005 Community Plan, in which Roanoke County set five Community-Wide Themes: Regionalism, Sustainability, Community Identity, Scenic Beauty, and Quality of Life. We firmly believe that the strategies we have utilized for the design and construction of these schools has the ability to several of these themes:

**Regionalism** - These projects will serve as spaces where staff can prepare students with Opportunity Ready skills as defined by RCPS Profile of a Graduate. Roanoke County's 2005 Community Plan stated "The County must take the lead in finding new and innovative ways to look beyond its political boundaries for solutions to the challenges of the next century." Our proposal for these schools will create spaces for learning that support RCPS's Profile of a Graduate, helping students to grow as innovators that are ready to solve the complex problems of the coming decades.

**Sustainability** - We are proposing that each of these schools be state of the art, "energy positive" buildings. This means that these schools will produce more energy than they consume. We will achieve this by designing buildings that consume a low amount of energy, and by placing solar photovoltaic arrays on the school's roofs. This will dramatically reduce the operating cost of these buildings for RCPS, while also reducing the negative impacts to the environment that come with energy consumption. We believe this meets the theme for Sustainability laid out in the 2005 Community, that defines Sustainability as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs."

**Community Identity** - The 2005 Community Plan made it clear that Community Identity was important to the county's residents, stating that "Roanoke County citizens identify very closely with their neighborhoods and school districts. Efforts must be made to preserve the elements of community identity that provide gathering spaces for the exchange of information and support." If our team is selected, we hope to work with community members, as well as your staff and students to create a graphics package for each school that celebrates Roanoke County's history and natural beauty. We firmly believe that school buildings themselves can serve as great teaching tools, and we look forward to working with you and the residents of Roanoke County to ensure that these schools are sources of pride for the community for years to come.

**Quality of Life** - The 2005 Community Plan states that "The citizens of Roanoke County recognize that there exists a fragile balance between economic growth and prosperity and the preservation of a way of life that is cherished by many. Proactive steps must be taken to manage growth in a positive way - to act conservatively and with deliberation when making decisions that will affect our high quality of life and that of our children's children." These schools will further enhance Roanoke County's quality of life by providing its students with state-of-the art facilities that support their education while providing them with Opportunity Ready skills.

By working closely with you and the Roanoke County community, our team thoroughly believes we can deliver schools that serve and celebrate Roanoke County by responding to each of these themes. We know that Roanoke County residents identify closely with their neighborhoods and school districts, and we look forward to working with you to ensure that these schools are pillars of their respective neighborhoods for years to come.

In addition to these community-wide themes, each of the focus groups developed a vision statement that reflects their discussions about the future of Roanoke County. Our team is particularly inspired by the Public Education focus group's goal of "providing world-class educational services to all citizens. The educational focus is to prepare learners for the work place and to develop in them characteristics of responsible, productive members of society for whom learning is a lifelong endeavor."



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6.8.5. Describe compatibility with the local comprehensive plan, local infrastructure development plans, the capital improvements budget, or other government spending plans.

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The Comprehensive Plan also states Roanoke County’s goal “To achieve the highest possible level of citizen participation in all elements of Roanoke County government by keeping our citizens informed and educated on public policy issues and by maintaining an open, democratic, and easily accessible governmental system.” Our team is highly skilled in managing a thorough community-engagement process. In the past, we have implemented strategies including:

- Publicly available surveys
- Focus Groups composed of school system staff, students, and community members
- Public meetings held in-person and virtually

In addition to Roanoke County’s 2005 Community Plan, our team has also thoroughly reviewed the draft of the Roanoke County 200 Plan and the Roanoke County Design Handbook.

We look forward to discussing the various methods for community involvement that we have at our disposal, and to working with you to develop a process that will work best for providing a voice to all community members on these projects.

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6.8.6. Provide a statement setting forth participation efforts that are intended to be undertaken in connection with this project with regard to the following types of businesses: (i) minority-owned businesses, (ii) woman-owned businesses, and (iii) small businesses.

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Avis Construction will advertise for competitive subcontractor and vendor pricing for the projects and encourage participation from all qualified business types including DBE/SWaM business as required.

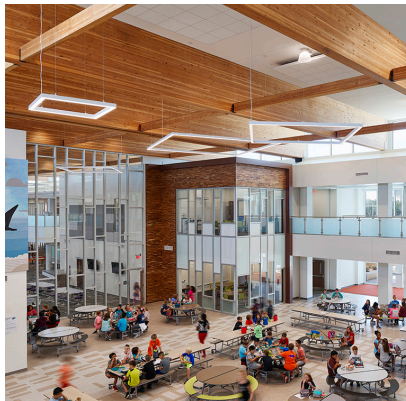




# Appendix A



## ST. JAMES INTERMEDIATE SCHOOL, HORRY COUNTY SCHOOLS | MYRTLE BEACH, SC



**Description:** These facilities are high-performance, safe and secure learning environment with classrooms, signature core spaces and feature energy positive building systems. The Owner wanted buildings that incorporated natural light, was student-centered & visually transparent throughout, had controlled access with appealing interior finishes. The building was designed around the learning commons. Lastly, the building was to comply with ASHRAE 189.1 and be energy positive. These compact buildings meet all the goals by organizing the building around the learning commons and accentuating the organization from every space. The energy-positive aspects of this project are best-in-class. The school include the following energy positive features: Thermally active building system (TABS); Centralized geothermal HVAC; Solar PV; LED lighting; Enhanced building automation; World-class indoor air quality; Superior building envelope; Monitoring-based commissioning; Advanced building analytics post construction.

**Consultants Involved:** SfL+a Architects, Firstfloor, Metcon, Optima, Bennett & Pless

**Size:** 170,784 sf

**Capacity:** 1,200

**Completion Date:** 2017

**Client Reference/Contact:** Ken Richardson - Former Horry County Schools Board Chair; 843.907.5551



## SOCASSEE ELEMENTARY SCHOOL, HORRY COUNTY SCHOOLS | MYRTLE BEACH, SC



**Description:** These facilities are high-performance, safe and secure learning environment with classrooms, signature core spaces and feature energy positive building systems. The Owner wanted buildings that incorporated natural light, was student-centered & visually transparent throughout, had controlled access with appealing interior finishes. The building was designed around the learning commons. Lastly, the building was to comply with ASHRAE 189.1 and be energy positive. These compact buildings meet all the goals by organizing the building around the learning commons and accentuating the organization from every space. The energy-positive aspects of this project are best-in-class. The school include the following energy positive features: Thermally active building system (TABS); Centralized geothermal HVAC; Solar PV; LED lighting; Enhanced building automation; World-class indoor air quality; Superior building envelope; Monitoring-based commissioning; Advanced building analytics post construction.

**Consultants Involved:** Sfl+a Architects, Firstfloor, Metcon, Optima, Bennett & Pless

**Size:** 120,401 sf

**Capacity:** 916

**Completion Date:** 2017

**Client Reference/Contact:** Ken Richardson - Former Horry County Schools Board Chair; 843.907.5551



## TEN OAKS MIDDLE SCHOOL, HORRY COUNTY SCHOOLS | MYRTLE BEACH, SC



**Description:** These facilities are high-performance, safe and secure learning environment with classrooms, signature core spaces and feature energy positive building systems. The Owner wanted buildings that incorporated natural light, was student-centered & visually transparent throughout, had controlled access with appealing interior finishes. The building was designed around the learning commons. Lastly, the building was to comply with ASHRAE 189.1 and be energy positive. These compact buildings meet all the goals by organizing the building around the learning commons and accentuating the organization from every space. The energy-positive aspects of this project are best-in-class. The school include the following energy positive features: Thermally active building system (TABS); Centralized geothermal HVAC; Solar PV; LED lighting; Enhanced building automation; World-class indoor air quality; Superior building envelope; Monitoring-based commissioning; Advanced building analytics post construction.

**Consultants Involved:** Sfl+a Architects, Firstfloor, Metcon, Optima, Bennett & Pless

**Size:** 170,784 sf

**Capacity:** 1,200

**Completion Date:** 2017

**Client Reference/Contact:** Ken Richardson - Former Horry County Schools Board Chair; 843.907.5551



## SOCASTEE MIDDLE SCHOOL, HORRY COUNTY SCHOOLS | MYRTLE BEACH, SC



**Description:** These facilities are high-performance, safe and secure learning environment with classrooms, signature core spaces and feature energy positive building systems. The Owner wanted buildings that incorporated natural light, was student-centered & visually transparent throughout, had controlled access with appealing interior finishes. The building was designed around the learning commons. Lastly, the building was to comply with ASHRAE 189.1 and be energy positive. These compact buildings meet all the goals by organizing the building around the learning commons and accentuating the organization from every space. The energy-positive aspects of this project are best-in-class. The school include the following energy positive features: Thermally active building system (TABS); Centralized geothermal HVAC; Solar PV; LED lighting; Enhanced building automation; World-class indoor air quality; Superior building envelope; Monitoring-based commissioning; Advanced building analytics post construction.

**Consultants Involved:** Sfl+a Architects, Firstfloor, Metcon, Optima, Bennett & Pless

**Size:** 150,606 sf

**Capacity:** 800

**Completion Date:** 2018

**Client Reference/Contact:** Ken Richardson - Former Horry County Schools Board Chair; 843.907.5551



## MYRTLE BEACH MIDDLE SCHOOL, HORRY COUNTY SCHOOLS | MYRTLE BEACH, SC



**Description:** These facilities are high-performance, safe and secure learning environment with classrooms, signature core spaces and feature energy positive building systems. The Owner wanted buildings that incorporated natural light, was student-centered & visually transparent throughout, had controlled access with appealing interior finishes. The building was designed around the learning commons. Lastly, the building was to comply with ASHRAE 189.1 and be energy positive. These compact buildings meet all the goals by organizing the building around the learning commons and accentuating the organization from every space. The energy-positive aspects of this project are best-in-class. The school include the following energy positive features: Thermally active building system (TABS); Centralized geothermal HVAC; Solar PV; LED lighting; Enhanced building automation; World-class indoor air quality; Superior building envelope; Monitoring-based commissioning; Advanced building analytics post construction.

**Consultants Involved:** Sfl+a Architects, Firstfloor, Metcon, Optima, Bennett & Pless

**Size:** 170,784 sf

**Capacity:** 1,200

**Completion Date:** 2017

**Client Reference/Contact:** Ken Richardson - Former Horry County Schools Board Chair; 843.907.5551



## ROCKY MOUNT HIGH SCHOOL, NASH-ROCKY MOUNT PUBLIC SCHOOLS | ROCKY MOUNT, NC



**Description:** The facility is a two-story, "H" plan facility with central atrium that serves as the commons for the school. The project includes 1500 seat gymnasium, 300 seat auxiliary gym, 250 seat black box multi-purpose theatre, media center, culinary arts program, automotive technology, JROTC, weight room, training room, construction technology, masonry construction lab, self-contained and exceptional children learning center, technology and production labs, science classrooms, distance learning lab, and multiple teacher and student collaboration/project rooms..

**Consultants Involved:** SFL+a Architects

**Size:** 248,000 sf

**Capacity:** 1,200

**Client Reference/Contact:** Mark Strickland - Former Director of Design & Construction at Nash-Rocky Mount Public Schools. Currently at Wake County Public School System - 252.459.5220 or 252.459.5984



## CAREER & TECHNICAL EDUCATION CENTER, ALAMANCE-BURLINGTON SCHOOL SYSTEM | ALAMANCE, NC



**Description:** This new facility is designed to support a new curriculum and program design. The school district and architect engaged in the development of a new approach to the facility's purpose in the role of technology in the contemporary high school educational program. The facility is designed to engage students from six high schools on a daily basis. The new facility features a construction lab and classrooms, automotive lab and classrooms, and technology classrooms, an electrical trades lab and classrooms, drafting lab, video production lab and classroom, culinary arts and an information management center, as well as administrative areas, computer labs, faculty rooms, and a central commons area.

**Consultants Involved:** SfL+a Architects

**Size:** 43,071 sf

**Capacity:** 200 students





## WATAUGA HIGH SCHOOL & CTE CENTER, WATAUGA COUNTY SCHOOLS | BOONE, NC



**Description:** A new high school designed to house 1,500 students. Site amenities include a field house, concession stands (includes restrooms) at the football and baseball fields, football stadium and track, a soccer field, tennis courts, baseball and softball diamonds, and parking for students, staff and buses. The new facility features an Auditorium, two gymnasiums - main & auxiliary, athletics locker and weight rooms, cafeteria/commons/kitchen area, music/band/choir room, art areas, administrative/counseling areas, media/technology center, classroom wings and workforce development classrooms.

**Consultants Involved:** SfL+a Architects

**Size:** 285,195 SF

**Capacity:** 1500 students



## ROBESON CAREER & TECHNICAL EDUCATION CENTER, PLANETARIUM & SCIENCE CENTER, PUBLIC SCHOOLS OF ROBESON COUNTY | PEMBROKE, NC



**Description:** The Robeson Career & Technical Education Center, Planetarium and Science Center will be designed in two phases. Phase 1 will consist of a new 2-story, approximately 90,000 sq. ft. building that will contain the Career & Technical Education Center, Planetarium, and Science Center. Phase 2 will add approximately 20,000 sq. ft. of additional program space to the Career & Technical Education Center.

**Consultants Involved:** SfL+a Architects

**Size:** 110,000 SF

**Capacity:** 400 students

**Completion Date:** 2025

**Client Reference/Contact:** Dr. Freddie Williamson, Superintendent - Public Schools of Robeson County - [freddie.williamson@robeson.k12.nc.us](mailto:freddie.williamson@robeson.k12.nc.us); 910.671.6000



## WILLIAM BYRD HIGH SCHOOL, ROANOKE COUNTY PUBLIC SCHOOLS | ROANOKE, VA



**Description:** William Byrd High School was built in 1969 and currently houses 1,150 students and 125 staff and administration. The project at William Byrd is spread across the school's first and second floors and will entail over 100,000 square feet of renovations and roughly 16,800 square feet of additions. Renovations will include Science Labs, Band Room, Weight Room, Media Center, Guidance, Library, and Front Lobby. Additions will include choir and art rooms, wrestling/cheer, a front entrance portico, new toilets at the cafeteria, and a greenhouse. Preliminary work will include building assessments of existing conditions and fire and life safety features.

**Consultants Involved:** Hughes Associates A&E, Day & Kinder, Avis Construction

**Size:** 116,800 SF

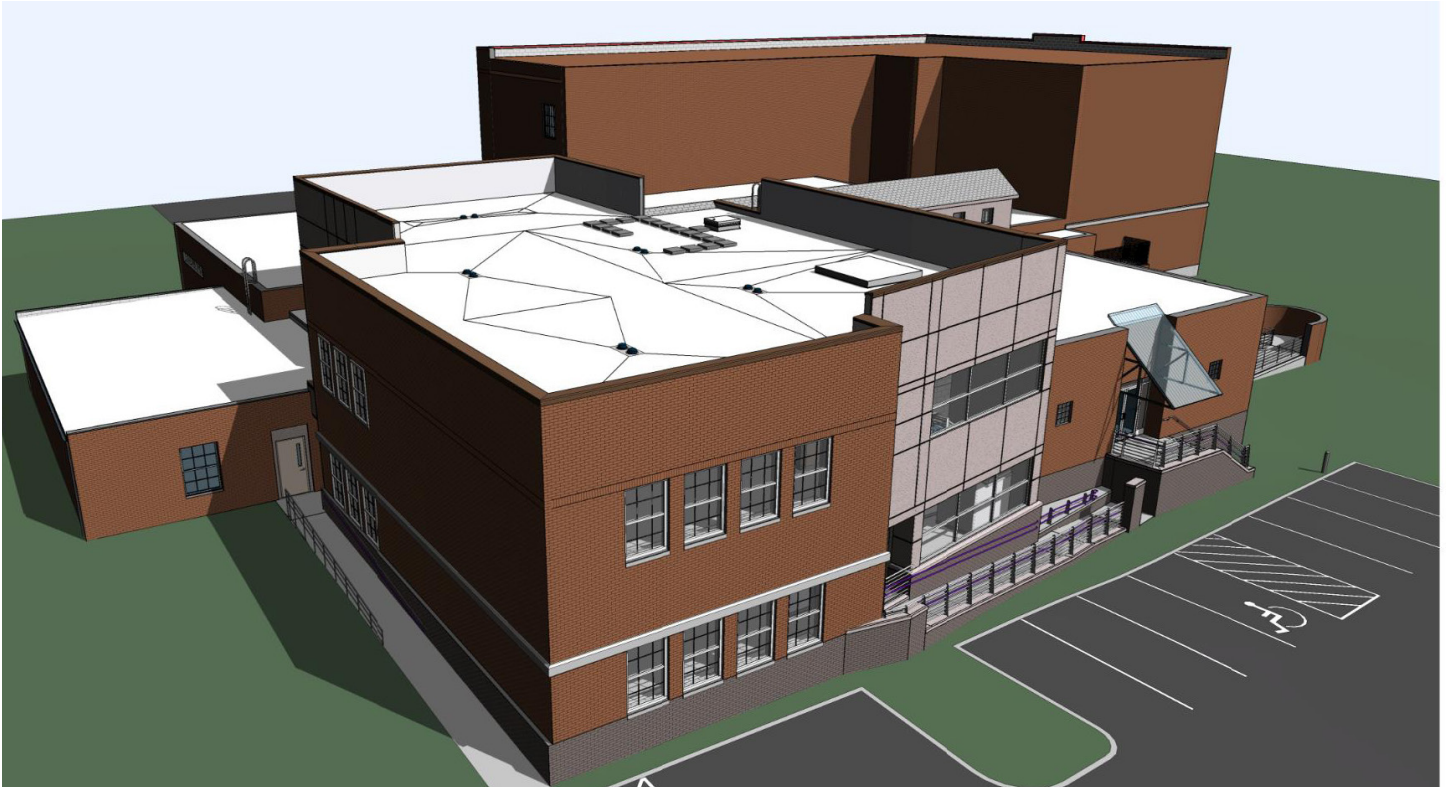
**Capacity:** 1,190 students

**Completion Date:** 2024

**Client Reference/Contact:** Jeff Shawver, PMP, [jshawver@rcps.info](mailto:jshawver@rcps.info); 540.853.2851



## MORNINGSIDE ELEMENTARY SCHOOL, ROANOKE CITY PUBLIC SCHOOLS | ROANOKE, VA



**Description:** Working with Roanoke City Public Schools, the new two-story addition and main building renovation at Morningside Elementary School will eliminate classroom trailers and provide the school with vital space for instruction. The addition includes 5 classrooms, 7 offices, resource rooms, and single and multiple user bathrooms. It will also feature an updated front entrance with a new canopy and accessible ramp. Alterations include the renovation of 3 classrooms with one being converted into an Art Room. Site work includes restoration of the parking lot.

**Consultants Involved:** Hughes Associates A&E, Day & Kinder

**Size:** 110,000 SF

**Capacity:** 300 students

**Completion Date:** 2023

**Client Reference/Contact:** Jeff Shawver, PMP, [jshawver@rcps.info](mailto:jshawver@rcps.info); 540.853.2851



## ROUND HILL ELEMENTARY SCHOOL, ROANOKE CITY PUBLIC SCHOOLS | ROANOKE, VA



**Description:** Hughes Associates Architects & Engineers was commissioned in 2012 to transform the over-crowded and aging school into a 21st-century educational campus. We first assessed existing school in order to design the necessary modifications. This project consisted of four phases of renovations and additions to expand the current 600-student elementary school to a final capacity of 900. We worked with the owner to phase the work so that the existing school could remain in operation throughout the construction. 4 Phases in total: Phase 1 - Gynasium & Site Work; Phase 2: Cafeteria/Kitchen & 12-Classroom Addition; Phase 3 - 9-classroom addition; Phase 4 - Interior Renovations.

**Consultants Involved:** Hughes Associates A&E, Day & Kinder, Avis Construction

**Size:** 112,600 SF

**Capacity:** 800 students

**Completion Date:** 2020

**Client Reference/Contact:** Jeff Shawver, PMP, [jshawver@rcps.info](mailto:jshawver@rcps.info); 540.853.2851



## FALLON PARK ELEMENTARY SCHOOL, ROANOKE CITY PUBLIC SCHOOLS | ROANOKE, VA



**Description:** Hughes Associates was commissioned in 2016 to create two schemes – one to renovate and enlarge the existing building and another to build a replacement school on vacant land at the rear of the site. After careful study of budget and logistics, a hybrid design was selected. Our solution called for a three-phase approach that allowed the school to remain functional throughout construction. Primary focus was placed on providing a spacious, secure, and efficient learning environment. Teaming with Avis Construction once again, a carefully orchestrated sequence of construction began. 3 PHASES: Phase 1 - New Classroom Wing; Phase 2 - New Cafeteria, Administration, Classroom Wing; Phase 3 - Renovation & Demolition.

**Consultants Involved:** Hughes Associates A&E, Day & Kinder, Avis Construction

**Size:** 112,600 SF

**Capacity:** 600 students

**Completion Date:** 2020

**Client Reference/Contact:** Jeff Shawver, PMP, [jshawver@rcps.info](mailto:jshawver@rcps.info); 540.853.2851



## CAVE SPRING HIGH SCHOOL, ROANOKE COUNTY PUBLIC SCHOOLS | ROANOKE, VA



**Description:** Complete renovation of existing high school including interior finishes, window replacement, library, gymnasiums and auditorium. Replacement of existing HVAC, electrical, plumbing, and IT/data/security. Addition of new classroom and administration space.

**Consultants Involved:** Avis Construction

**Size:** 176,000 SF

**Capacity:** 600 students

**Completion Date:** 2020

**Client Reference/Contact:** Chris Lowe, [clowe@rcps.us](mailto:clowe@rcps.us); 540.314.0901



## DEBT OFFERINGS

## PIPER | SANDLER

	Sale Date	Issue Dated date	Par Amount (USD Millions)	State of Issuer	County
30	11/13/2013	12/4/2013	45.20	Loudoun Co-Virginia	Virginia
29	10/9/2019	10/24/2019	27.32	Virginia Public School Authority	Virginia
28	9/29/2020	10/15/2020	106.51	Virginia Public School Authority	Virginia
27	7/27/2023	8/15/2023	128.79	Texas	Grayson
26	8/1/2023	8/1/2023	214.63	Texas	Bastrop
25	8/1/2023	8/1/2023	29.96	Texas	Bexar
24	8/1/2023	8/15/2023	377.46	Texas	Denton/Tarrant/Wise
23	8/2/2023	8/1/2023	237.58	Texas	Grayson
22	8/2/2023	8/15/2023	77.14	Texas	Potter
21	8/2/2023	8/1/2023	260.87	Texas	Williamson/Travis
20	8/2/2023	8/1/2023	24.92	Texas	Williamson/Travis
19	8/2/2023	8/1/2023	14.15	Texas	Williamson/Travis
18	8/3/2023	8/29/2023	8.46	Michigan	Clinton/Ionia
17	8/3/2023	8/1/2023	140.15	Texas	Tarrant
16	8/4/2023	8/17/2023	7.49	California	Riverside
15	8/7/2023	8/15/2023	93.27	Texas	Collin
14	8/7/2023	8/17/2023	2.44	New York	Tioga
13	8/8/2023	8/15/2023	41.70	Texas	Harrison
12	8/9/2023	8/22/2023	1.48	Oregon	Curry
11	8/9/2023	8/22/2023	13.53	Oregon	Curry
10	8/9/2023	8/23/2023	6.26	Colorado	Morgan/Weld
9	8/9/2023	8/1/2023	115.70	Texas	Parker/Tarrant
8	8/10/2023	8/1/2023	27.88	Texas	Nueces
7	8/15/2023	8/31/2023	35.00	South Carolina	Saluda
6	8/17/2023	8/30/2023	27.72	California	State Authority
5	8/17/2023	8/1/2023	27.81	Texas	Denton
4	8/17/2023	9/6/2023	45.88	California	Los Angeles
3	8/17/2023	8/30/2023	16.60	Kansas	Pratt
2	8/17/2023	9/1/2023	13.00	New York	Rockland
1	8/18/2023	8/31/2023	29.49	California	Los Angeles