



**Full Board Meeting
July 13, 2022**

Action Item

BOT - 2.5 Approval of Designer Selection for Phillips Hawkins and Moore Strong Phased Resident Halls HVAC Replacement

Background Information

The delegated authority has been granted to the university's Board of Trustees from the Board of Governors to proceed with Advance Planning through Schematic Design. The full construction funding amount (total project budget estimated at \$10.6M) will be determined before the onset of Design Development. Capital request for full authority to be submitted to the Board of Governors for approval after scope and budget have been clearly defined in the Schematic Design Submission.

This project's scope is to replace the aged mechanical systems in both resident halls (including fan coil units, AHUs, and mechanical piping) and update mechanical rooms to provide chilled and hot water to HVAC units and add redundancy to the HVAC system. The HVAC system units are well past their expected useful life. These units now need to be updated with high-efficiency equipment. These project schedules are tied together so Housing can phase the construction and schedule occupancy in the most beneficial way to meet student needs.

The University of North Carolina System website advertised the request for qualifications and letters of interest for design services for this project. Ten (10) design firms submitted letters of interest and two (2) were from Guilford County.

The Designer Selection Committee reviewed the letters of interest and invited three (3) firms to an interview on June 30, 2022 to present their qualifications. The Committee recommends the following in ranking order.

1. Sigma Engineering
2. Optima Engineering
3. McKim & Creed

Sigma Engineering is an engineering firm and is recommended as the Designer for the following reasons:

1. They presented the most significant understanding and familiarity with the mechanical systems typical to UNC Greensboro's Residence Halls. During the interview, they best demonstrated success on similar replacement and renovation projects.
2. Sigma's team illustrated the most expertise in working on complex, phased projects with similar issues to this project. They presented the strongest approach on how to approach and sequence the work.
3. Sigma presented the most comprehensive and appropriate team for this specific project and thoroughly addressed risk management issues and challenges during design and construction.

Attachment:

See Sigma Engineering Letter of Interest below.

Requested Action

Based on the above information, the Board of Trustees of the University of North Carolina at Greensboro approves the firm of Sigma Engineering. If agreeable terms cannot be met with the recommended firm, then the Board authorizes the administration to negotiate terms with the other firms in ranking order.



Robert J. Shea, Jr.
Vice-Chancellor for Finance *and*
Administration



Statement of Qualifications for

Phillips Hawkins and
Moore Strong
Phased Resident Halls HVAC
Replacement

Prepared for
The University of North Carolina
Greensboro



Prepared by
Sigma Engineered Solutions, PC

May 13, 2022



Information Sheet

Firm Name

HUB Certified If HUB, Specify Type Female American Indian Hispanic Socially & Economically Disadvantaged
 Disabled Asian-American Black

Point of Contact E-mail Address

Street Address

City State Zip Code County

Phone # Fax #

Type of Firm (e.g. Architectural, Civil Engineering, Surveying, Etc)

Consulting Firms

Architectural:	<input type="text" value="Lambert AI"/>	<input type="checkbox"/> Check If HUB	Mechanical:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Electrical:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Plumbing:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Structural:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Civil:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Landscape:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Interior Design:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text"/>				<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text"/>				<input type="checkbox"/> Check If HUB



May 13, 2022

Mr. Timothy Rouse
UNCG Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412
(via email: fdc@uncg.edu)

Re: Request for Qualifications – Phillips Hawkins and Moore Strong Phased Resident Halls HVAC Replacement

Dear Mr. Rouse:

We at Sigma Engineered Solutions, PC (Sigma) are pleased to offer this Letter of Interest and Statement of Qualifications for Engineering Services for the Phillips Hawkins and Moore Strong Phased Resident Halls HVAC Replacement.

Sigma Engineered Solutions, PC (Sigma), a multi-discipline engineering office in Raleigh, opened in 2003. The design and renovation of North Carolina educational and institutional facilities are the heart of our practice. Many of our projects in the last nineteen years have been renovation or combination renovation and new construction projects in the UNC system, and some of our major projects were done while the Owner fully or partially occupied the building. We have designed and managed construction of projects for clients such as:

- UNC Greensboro
- UNC Chapel Hill
- NC State University
- East Carolina University
- Duke University
- Wake Tech Community College
- NC Department of Administration
- NC Department of Health and Human Services
- NC Department of Natural and Cultural Resources

We have formed ongoing relationships with these clients that continue to develop favorably and provide mutual benefit. The organization of our firm allows our principals to manage each project personally and to maintain a close, constant involvement throughout the design and construction process.

Sigma's principals and engineers have worked on several significant residence hall projects on the UNCG campus, including the Ragsdale-Mendenhall Renovations, the Reynolds and Grogan Renovations, the Weil Winfield Fire Alarm and Fire Protection Upgrades, and the Spartan Village II Complex. We have held Open-End Design Service agreements with UNCG in the past and have completed many projects on the campus in our nineteen years of business. We are currently trusted with the Open-End Design Service agreements for several regional entities including UNCG, NCSU, Wake County GSA, and the City of Raleigh.

In response to your Request for Qualifications, we offer the following:

- ◆ Current and extensive experience in **HVAC, electrical and plumbing** design for numerous institutional facilities; our principals and design team are currently working on the design and construction of over 2,000,000 square feet of significant renovations for HVAC, electrical, plumbing and fire protection systems on facilities across the State of North Carolina.
- ◆ Our ability to continue to procure projects from past Clients is a good indicator of our performance - present and past. Over 98% of our Clients are Owners for whom we have completed two or more projects.
- ◆ We have a staff of thirteen full-time employees. Our current workload and staff allow us to respond to almost any Client need in a timely fashion.
- ◆ We continue to meet all design schedules in a timely fashion. In addition, our record of keeping a project on budget is exemplary. Our estimates are generally within 3-5% of awarded bids on State projects.

We propose to team up with Winston-Salem firm **Lambert Architecture and Interiors** for the architectural needs of this project. We have a solid history of working with the team at Lambert and have completed multiple successful projects with them, including the recently completed renovations to Ragsdale-Mendenhall Residence Hall on the UNCG campus.

Please do not hesitate to contact me if I can answer any questions you have or if you would like additional information. Again, we thank you for this opportunity to present our qualifications. We look forward to continuing our relationship with the University of North Carolina at Greensboro.

Sincerely,



Paul Romiti, PE
Sigma Engineered Solutions, PC

Attachments: SF-330 Form



SIGMA ENGINEERED SOLUTIONS, PC

NC C-2490



Paul J. Romiti, PE

*Principal in Charge and
Chief Mechanical Engineer*

**Reginald Adams, PE,
LEED AP BD+C**

Chief Electrical Engineer

Brent Hanes, PE

Sr. Mechanical Engineer

Steven D. Richardson, EI

Sr. Electrical Designer

John R. Erickson, PE

Mechanical Engineer

L A M B E R T
ARCHITECTURE | INTERIORS

LAMBERT A+I

(Architectural Consultant)

SIGMA ENGINEERED SOLUTIONS, PC

SELECTION CRITERIA



1. *Specialized or appropriate expertise in the type of project.*

Sigma has successfully completed over five hundred projects since its inception. Most of these projects have been "messy" renovations in occupied spaces. Some of the project highlights we will address at length in later pages of the SOQ include the following projects:

- **UNCG Ragsdale Mendenhall renovations, Greensboro NC**
- **UNCG Reynolds Dormitory renovations, Greensboro NC**
- **UNCG Grogan Dormitory renovations, Greensboro NC**
- **UNCG Spartan Village II, Greensboro NC**
- **UNCG Weil Winfield – Fire Alarm and Sprinkler replacements, Greensboro NC**
- **NCSU Partners I and Research II Energy Improvements, Raleigh NC**
- **NCSU Varsity Research Building, NCSU - Plant Pathology Renovations to Modules 2,3,6 & 7, Raleigh NC**
- **Tryon Palace – HVAC Renovations, New Bern NC**

2. *Past performance on similar projects.*

Ninety percent of our revenues come from repeat clients. We think that this speaks directly to our past performance. All of our projects with similar experience were completed on time, on budget and to the satisfaction of the client. We specialize in "messy" renovation projects that require thorough field investigations and careful planning. We are adept at routing projects through the SCO as the prime designer and managing bidding, contracts, and construction administration.

3. *Current workload and State projects awarded.*

Sigma only responds to projects advertisements that we know we are qualified to deliver and also have the capacity to properly service the client. Below is a list of the most significant projects currently in production at Sigma Engineered Solutions, PC. Projects that have been awarded through the State Construction Office are denoted with 'SCO'.

Jobs in Design

Golf House PGA Headquarters	Completion May 2022	
Wake Tech Community College Building HE Boiler Replacement	Completion May 2022	
Wake Tech Community College Building SK and SJ Energy Upgrades	Completion Summer 2022	
McCullers and Garner Fire EMS Stations	Deadline Summer 2022	
Renovations to Greene's Motel, Boone NC	Deadline September 2022	
NC School of Science and Math Student Center and Servery	Deadline December 2022	
Longleaf Neuro-Medical Treatment Center – Scott Wing Renov.	Deadline Spring 2023	SCO

Jobs under Construction

DHHS State Lab Loading Dock	June 2022	SCO
NC Dept of Administration Parking Decks 75 & 76 Improvements	Completion Summer 2022	SCO
Various Wake Med Medical Office fit-ups	Various Deadlines	

SIGMA ENGINEERED SOLUTIONS, PC

SELECTION CRITERIA



4. Proposed design approach for the project including design team and consultants.

The design approach for this project should resemble the typical SCO design phase process of SD/DD review, then progress directly into CD design.

We have found that the UNCG project kickoff meetings do an excellent job in encapsulating project scope, budget and schedule, and the project will begin there. From this meeting we will develop an understanding of the project goals and we will draw upon past experiences with UNCG housing, successful strategies we've used at other universities, and any new technologies in order to help to achieve them.

Next Sigma will collect all available information about the building using plans and historical energy data and start to schedule our field surveys at convenient times during the school year. During this survey period, Sigma will help identify other deficiencies and inaccuracies in record drawings and prepare a report for presentation of any deficiencies to the Owner. From this report, further refinement of the project scope can be determined and reconciled with the available project budget. Once these issues are decided upon, we will provide a design schedule acceptable to the owner and project manager.

Sigma will prepare 50% CD submission for UNCG review to verify that all scope has been considered and to present enough of the design intent to generate meaningful comments from UNCG shareholders before moving to CD documents.

At the CD phase, Sigma will incorporate and user comments, reconcile the budget and complete the design for simultaneous submission to the SCO and to UNCG for final comments.

At this time our proposed design team will be: Paul Romiti, PE; Brent Hanes, PE; John Erickson, PE; Reggie Adams, PE; and Steve Richardson, EI. This team has demonstrated continued success in UNCG projects since 2012 and we feel that bringing our past experiences to this project will ensure a successful process.

We propose to team up with Winston-Salem firm **Lambert Architecture + Interiors** for the architectural needs of this project. We have a strong history of working with the team at Lambert and have completed several successful projects with them, including university work such as the recently completed Ragsdale Mendenhall renovations at UNC Greensboro.

Other sub-consultants that might be needed would be Structural and Hazmat professionals. If required, we propose using Lynch Mykins for structural and EEC for hazmat design services.

5. Recent experience with project costs and schedules.

The past few years have seen unprecedented escalations in construction costs. As a result, Sigma will develop its own internal construction estimate but due to market conditions fluctuating almost daily - we have found the best success when we compare our internal estimates to those of a professional cost estimator. Recently we have been working with Palacio Collaborative to means test our estimates not only during design - but also to project costs when the project goes into the bid market.

SIGMA ENGINEERED SOLUTIONS, PC

SELECTION CRITERIA



Recent Project Cost Experience

This has been an outlier from normal construction years and has been difficult to predict project costs. It is critical to recognize the impact that the shut-downs have caused to contractor pricing and availability of materials. These conditions fluctuate greatly – most significantly among the trade contractors like Mechanical and Electrical. We have had to keep in touch with contractors and suppliers throughout the design process to predict what is going to happen on bid day. In order to absorb these fluctuations, Sigma will identify and design multiple bid alternates, extend bid invitations to many contractors, and specify products that we know are less susceptible to supply shortages. Most bid tabulations have been very spread out because some contractors are more eager for the work than others. Below is a list of some of our public project results but we have been able to award every project we have bid.

	Project Budget	Final Contract Amount
WTCC Group 3	\$ 500,000	\$ 485,000
NCSU Admin Annex	\$ 224,330	\$ 137,885
Lynn EMS	\$ 315,588	\$ 280,000
Pullen Aquatics	\$ 612,000	\$ 607,843
Reedy Creek	\$ 920,700	\$ 895,500
WTCC Ionization	\$ 450,000	\$ 400,975

Recent Schedule Keeping Experience

Keeping a design schedule is paramount to a successful project and it is the highest priority for us to meet projected bid dates. Sigma will set aggressive design schedules and meet or precede our own milestones to make sure the projects are able to be constructed during the intended windows.

Sigma engineers are driven by client satisfaction. Everyone on our staff shares a personal commitment to each of our clients and have, and always will do whatever it takes to make a client's deadline.

6. Construction administration capabilities

Sigma Engineers always do their own construction administration. We feel that when the actual designer also oversees all aspects of their designs being installed, they are the most qualified to ensure adherence to the documents. We also feel that their institutional knowledge of the entire design process empowers them to make appropriate and timely decisions in the field. This attention to detail and quick response to changing field conditions can substantially decrease the potential for change orders and leads to a more successful project for all parties involved.

7. Proximity to and familiarity with the area where project is located.

Sigma's office is 1hr and 5 min from the Grey Home. We know this because our staff have made this trip weekly for nearly 6 years. The trip from Raleigh to Greensboro can literally take less time than getting to some jobsites even in the Raleigh area. Greensboro has become our second home and I do not think you can find an example where Sigma didn't present as a local firm.

SIGMA ENGINEERED SOLUTIONS, PC

SELECTION CRITERIA



8. *Record of successfully completed projects without major legal or technical problems.*

Sigma has successfully completed projects of up to \$80,000,000 since 2003. Every single one was completed successfully with ZERO major legal or design-related technical problems. Sigma Engineered Solutions, PC, stands by our designs through construction and beyond to make sure that we never let any issues turn into major problems, and certainly not into legal problems.

9. *Energy conservation/LEED experience*

At UNCG, Sigma is proud to brag that our designs have realized exceptional energy savings at our last three dorm renovations on campus: Reynolds, Grogan, and Ragsdale-Mendenhall. We approach every project – whether LEED certified or not – with the same eye for energy savings.

Profile

FIRM INFORMATION: Sigma Engineered Solutions, PC
5909 Falls of Neuse Rd., Suite 101
Raleigh, NC 27609
Phone: (919) 840-9300
www.sigmaes.com
Professional Corporation
NC Business License # C-2490



PRINCIPAL CONTACT: Reginald D. Adams, PE, LEED AP BD+C
O: (919) 840-9300, C: (919) 606-9539
E: radams@sigmaes.com

COMPANY STRUCTURE AND HISTORY

Sigma Engineered Solutions, PC (Sigma) was established in 2003. Our firm is a partnership of professional engineers with over 100 years of combined experience in consulting engineering and construction administration services in North Carolina, South Carolina, Virginia and Maryland. Principals of the firm are Mr. Reginald Adams, PE, LEED AP, President and CEO; and Mr. Paul Romiti, PE, Vice-President and COO. Mr. Romiti has a vast knowledge of temperature control systems and commissioning. We currently have a staff of 13 full-time employees, comprised of seven (7) professional engineers, one (1) graduate engineer, one (1) senior designer, two (2) CAD operators, and two (2) administrative staff.

Since its inception, Sigma has completed designs in NC, VA, MD, OK, GA, LA and SC, established relationships with premier architectural design firms, and created strategic affiliations with other engineering and related firms. We have demonstrated a capacity to respond successfully to a broad range of design and client challenges. Building upon this experience, our goal is to be a premier and profitable service provider to leading design and construction projects around the United States.

DESCRIPTION OF BUSINESS SERVICES

Our objective is to provide superior consulting services for the design of mechanical (HVAC), plumbing, electrical, fire suppression, and telecommunications systems. Additionally, we provide feasibility studies, cost estimating, due diligence reports, master planning, and systems analysis. We perform life cycle cost analysis and energy modeling on most large projects, and offer temperature control system verification on all projects to ensure that all equipment is operating at design performance.

Sigma has a commitment to providing sustainable design for its clients. We are members of the U.S. Green Building Council, and have three LEED Accredited Professionals on staff. Even if the project is not targeted for LEED certification, we consistently bring many of the strategies of LEED to every project.

Sigma has successfully completed over nine-hundred projects since its inception. Most of these projects have been renovations or combination renovation-and-new construction projects. Some of our major projects were done while Owner fully occupied the building. Our principals and engineers are well versed in working on projects in the public sector and have vast experience working with plan reviewers to expedite the approval process on both new and renovation projects.

We are experienced with working directly for many large organizations such as:

- University of North Carolina Greensboro
- University of North Carolina Chapel Hill
- North Carolina State University
- East Carolina University
- Wake Technical Community College
- North Carolina Department of Administration
- North Carolina Dept. of Health and Human Services
- Wake County
- City of Raleigh
- City of Durham

Sigma has extensive experience with Higher Education Facilities in North Carolina, including:

UNIVERSITIES:

- University of North Carolina at Greensboro – *(Over 15 projects; including active Open-Ended Service Agreements)*
 - Coleman Building Room Envirochamber Installation
 - Coleman Building Weight Room Renovation
 - Cone Ball Room
 - ECU/Cone Ballroom Auditorium Lighting Upgrade
 - Ferguson Child Care Classroom
 - HHP Renovations
 - HHP Cooling Tower Replacement
 - Ragsdale-Mendenhall Residence Hall Renovations
 - Reynolds and Grogan Residence Hall Renovations
 - Spartan Village II Residence Hall and Retail Complex
 - Taylor Theater A/V Upgrades
 - Taylor Theater Dimming Upgrades
 - Weatherspoon Art Museum
 - Weil Winfield Fire Alarm and Generator Upgrade
- University of North Carolina at Chapel Hill – *(100+ projects; including Open-Ended Service Agreements)*
 - Beard Hall Renovations
 - Campus Y Building
 - Chase Dining Hall Expansion and Renovation
 - Cheek Clark Emergency Project
 - Davie Hall Renovations
 - Fetzer Gym Renovations
 - Field Hockey Training Facility and Stadium
 - Frank Porter Graham Student Union Renovations
 - Health Affairs Bookstore
 - Hinton James Residence Hall Renovations
 - Kenan Stadium Field Renovations
 - Lenoir Dining Hall Renovations
 - MacNider Hall HVAC Feasibility Study
 - McGavran Greenberg Fire Pump Study
 - Morrison Residence Hall Renovations
 - New East ADA Renovations
 - Playmakers Theater Renovations
 - Student Health Services Pharmacy Renovations
 - Swain Hall Renovations
 - Taylor Hall Student Health Modifications
 - Thurston Bowles Lab Renovations
 - Wilson Library Fire Alarm Upgrades
- North Carolina State University – *(50+ projects; including active Open-Ended Service Agreements)*
 - Administrative Services Annex - Chiller Plant Tie-In
 - Avent Ferry Building F Renovations
 - Avent Ferry Network Lab Renovations
 - Broughton Hall Suite 2216 Renovations
 - Bureau of Mines Renovations
 - Carmichael Gym Renovations
 - Case Athletics Center Study
 - Case Commons Residence Hall
 - DH Hill Library Study and Renovations
 - Kappa Alpha Theta
 - Lee Dorm ADA Renovations
 - Materials Management Warehouse UPS Upgrade
 - McKimmon Center Renovations
 - Murphy Sports Center Renovations
 - New Creamery Building
 - Partners I Energy Improvements
 - PNC Arena NCSU Players Lounge
 - Price Music Hall Renovations
 - Research II Energy Improvements
 - Ricks Hall 1st Floor North Wing Renovations
 - SAS Hall Atrium Renovations
 - SAS Technology Renovations
 - Student Health Center Renovations
 - Tucker Dorm Improvements
 - Varsity Drive Lighting Renovations
 - Varsity Research Building Renovations
 - Weisiger-Brown Training Room
 - Witherspoon Renovations
 - Wolf Ridge and Village ADA Suites
 - Wolf Village and Dail Softball Complex MDF Upgrades

COMMUNITY COLLEGES:

- Wake Technical Community College
 - Ready Hall Addition
 - HVAC Surveys – Mechanical Equipment Replacements across Multiple Campuses
 - Mechanical Equipment Replacements – Group 1: Pucher LeMay and Howell Library
 - Mechanical Equipment Replacements – Group 2: Buildings N & P
 - Mechanical Equipment Replacements – Group 3: Buildings N & P Additional scope
 - Mechanical Equipment Replacements – Group 4: Ionization Project
 - Mechanical Equipment Replacements – Group 4: Building SJ
 - Mechanical Equipment Replacements – Group 4: Multiple Chiller Replacements
- Surry Community College
 - Buildings C and V Renovations
 - Security Building Renovations
 - Pilot Center Phase 2

SIGMA ENGINEERED SOLUTIONS, PC

SELECT PROJECT EXPERIENCE



Ragsdale-Mendenhall Residence Hall

UNCG, Greensboro, NC

In conjunction with Lambert Architecture + Interiors, Sigma provided the mechanical, electrical, plumbing and fire protection for this ninety thousand square foot project. It included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements.

Cost: \$ 10,000,000

Project Prime: Lambert Architecture + Interiors

MEP Subconsultant: Sigma Engineered Solutions, PC



Reynolds and Grogan Residence Halls

UNCG, Greensboro, NC

In conjunction with Little Diversified Architectural Consulting, Sigma designed the engineering systems for the renovations of these two 8-story, 80,000 SF residence halls with classrooms and gathering areas. Project scope included total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensors to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance.

Cost: \$15,000,000

Project Prime: Little Diversified Architectural Consulting, PA

MEP Subconsultant: Sigma Engineered Solutions, PC



Spartan Village II

UNCG, Greensboro, NC

In conjunction with Little Diversified Architectural Consulting, Sigma designed the engineering systems for a new complex of mixed-use buildings consisting of apartment-style student housing and retail spaces. Sigma provided design for HVAC, plumbing, electrical, telecommunications, fire protection systems, and ADA compliant spaces for the complex of four 4-story buildings, totaling approximately 200,000 SF.

Cost: \$ 30,000,000

Project Prime: Little Diversified Architectural Consulting, PA

MEP Subconsultant: Sigma Engineered Solutions, PC



SIGMA ENGINEERED SOLUTIONS, PC

SELECT PROJECT EXPERIENCE



Weil Winfield Residence Hall – Fire Alarm and Sprinkler Replacement UNCG, Greensboro, NC

Sigma provided electrical and fire protection engineering design services for this 284 bed, 75,000 SF residence hall. Project scope included a new mass notification fire alarm system, and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad, security system enhancements, and replacement of an existing non-freeze wet-pipe sprinkler system in the attic with a dry-pipe sprinkler system.

Cost: \$1,900,000

Project Prime: Sigma Engineered Solutions, PC



Energy Improvements to Partners I and Research II North Carolina State University, Raleigh, NC

Sigma provided mechanical and electrical engineering design, and construction administration for the replacement of existing mechanical systems in these two laboratory and office buildings to increase energy efficiency and tenant comfort.



The Partners I building is 78,500 SF and was built in 1992. The HVAC systems were all low-efficiency DX split and packaged systems. This project replaced all of the existing DX equipment with high efficient, high-comfort hydronic air handlers and connected the building to nearby campus steam and chilled water. Sigma worked closely with NCSU facility ops and the Centennial Campus Development Office to completely convert the HVAC systems in this laboratory and office building with zero interruptions to existing tenants. The project was phased and remained fully occupied during all phases of construction.

Cost: \$2,800,000

Project Prime: Sigma Engineered Solutions, PC

*"This project was like performing a heart transplant on a patient without them knowing it."
– M. Michaelson, NCSU Construction Manager*

The Research II building was another early 90's laboratory/office building that originally housed the NCSU contributions to the NASA Mars rover project. The systems were aging and inefficient and laboratory exhaust was twice what the building actually needed. This project combined multiple smaller air handlers into more efficient systems, and rebalanced exhaust air for current Laboratory needs.

Cost: \$1,500,000

Project Prime: Sigma Engineered Solutions, PC



SIGMA ENGINEERED SOLUTIONS, PC

SELECT PROJECT EXPERIENCE



Varsity Research Building Plant Pathology Modules 2, 3, 6 & 7 Renovations North Carolina State University, Raleigh, NC

Sigma was retained to assess the existing Mechanical, Electrical, Plumbing, Fire Protection and Fire Alarm Systems in the Varsity Research Building (VRB) on NC State's campus in order to prepare for the relocation of the Plant Pathology department into labs and office spaces in the building.

This study led to renovations of 4 stand-alone lab modules that included Revisions to existing 100% OA units, new air distribution ductwork, balancing of laboratories with new fume hoods, now controls, lighting and emergency generator power. This project also included a building-wide RO water distribution system, designed for future expansion and connection in other module upgrades.



Cost: \$6,000,000

Project Prime: Flad Architects

MEP Subconsultant: Sigma Engineered Solutions, PC

Tryon Palace – Governor's Palace Main Building and Kitchen Building HVAC Repair, New Bern, NC NC Dept. of Natural and Cultural Resources

Sigma served as the prime consultant on this project, and provided engineering design and construction administration to replace the HVAC equipment in the Palace main building and the Palace's kitchen building including cooling tower, boiler, hot water pumps, air handlers, chiller, condenser pumps, chilled water pumps, hot water air control system, chilled water air control system, and associated piping.

Site remained fully functional and open to the public during construction.

Cost: \$1,100,000

Project Prime: Sigma Engineered Solutions, PC





LAMBERT Architecture + Interiors Firm Profile:

Established by David M. Lambert, Jr. in 1989, LAMBERT Architecture + Interiors has provided design services to a wide range of clients including higher education, corporate workspace & operations, healthcare, retail, automotive and senior living throughout the Southeast from our offices in Winston-Salem for over 30 years. Our commitment to the community runs deep and much of our most rewarding work has been for post-secondary clients who embrace progressive design ideas and also challenge us to do our best work. The interactive relationship is why we enjoy working with institutions of higher learning. We have a long history of work within the UNC and Community College systems and a great working relationship with the State Construction office.

ARCHITECTURE

- Predesign
- Design
- Construction Services

INTERIORS

- Interior Architecture
- Furnishings Consulting
- Finishes Selection
- Brand Management/Identity
- Move Management

PLAN/DEVELOPMENT

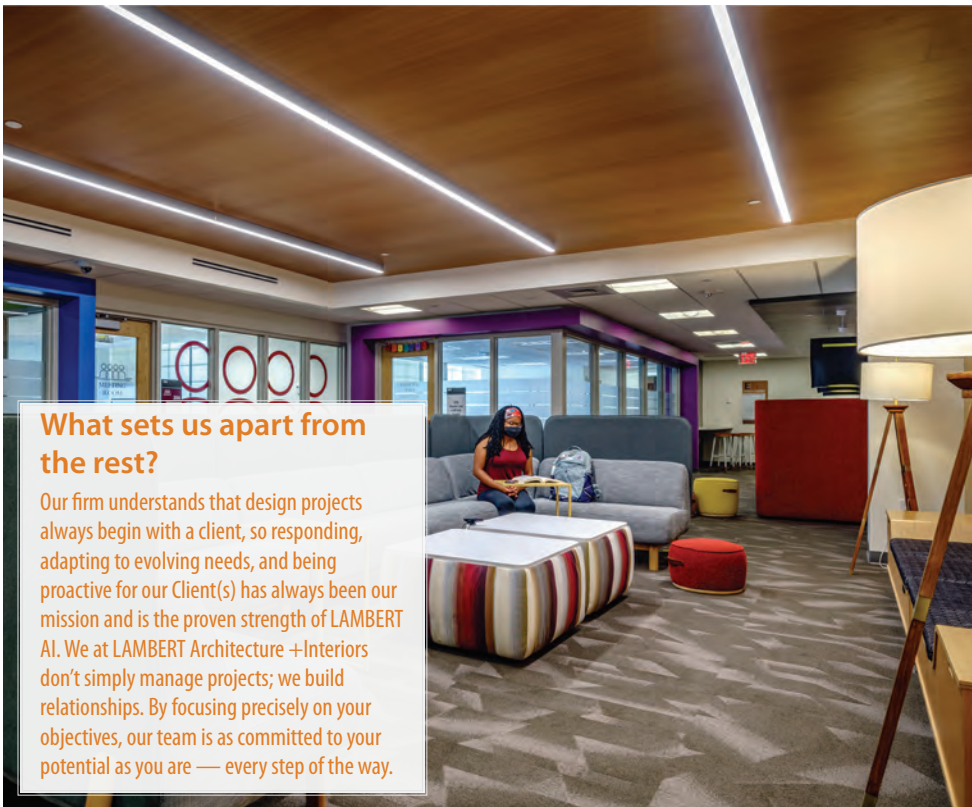
- Master Planning
- Strategic Facilities Planning
- Site Planning/Analysis
- Feasibility Studies
- Program Management

SUSTAINABILITY

- Sustainability Consulting
- LEED Certification

TECHNOLOGIES

- 3D computer rendering & animation
- Building Information Modeling (BIM)
- Project/Client FTP sites



What sets us apart from the rest?

Our firm understands that design projects always begin with a client, so responding, adapting to evolving needs, and being proactive for our Client(s) has always been our mission and is the proven strength of LAMBERT AI. We at LAMBERT Architecture +Interiors don't simply manage projects; we build relationships. By focusing precisely on your objectives, our team is as committed to your potential as you are — every step of the way.

YOUR LAMBERT A+I DESIGN TEAM



Stuart McCormick, AIA

As the President and Design Principal of LAMBERT, Stuart McCormick, AIA, LEED AP, NCARB will serve as the Architectural Principal of the project. With over 35 years of experience, he has overseen several university projects. He has directed large teams that included multi-faceted members from the Owner as well as consultants, contractors and sub-contractors. A creative at heart, his #1 strength is "Strategic Thinking" which will insure that all possible angles are presented before making a decision.



Peter Falk, RA

With over 29 years of experience, Peter Falk will be the Architectural Project Manager handling the coordination of all architectural project efforts, administrative and technical, to assure the most efficient processes for the project. A former U.S. Marine, his background is ideally suited to his #1 strength of "Consistency" and making sure tasks are accomplished in a logical and timely manner.



408 N. MARSHALL STREET
 SUITE 300
 WINSTON-SALEM, NC • 27101
 (336) 777-3657

For over 30 years, LAMBERT Architecture + Interiors, one of the South's pre-eminent design firms, continues to provide architectural design, interiors, and planning services for clients in the public and private sectors. Our diverse expertise targets the historic preservation, adaptive reuse, workspace, and higher education sectors.

University of North Carolina Greensboro Projects:

• Jackson Library Reno Feasibility Study	220,000 SF
• Elliott Univ. Center Design Standards	119,000 SF
• Guilford & Mary Foust Res. Hall Reno	72,000 SF
• Ragsdale Mendenhall Res. Hall Reno	75,200 SF
• Elliott Univ. Center Standards Impl	38,000 SF
• Library Archive Storage	30,000 SF
• Jackson Library Renovations	27,710 SF
• McNutt Technology Center	26,500 SF
• Jackson Library Digital Media Renovation	16,000 SF
• Jackson Library Ph I & II Renovations	10,000 SF
• Housing & Residence Life Resources	6,000 SF
• Jackson Library ERIT Renovation	4,300 SF
• Ragsdale Mendenhall Dormitory Renovation	90,000 SF



4.1 Expertise and experience in this type of project

4.2 Past performance on similar projects to Phillips Hawkins & Moore HVAC Replacement

LAMBERT AI has done more Renovations to aged buildings than any other type of project:



UNCG Ragsdale Mendelhall Reonvation | Greensboro, NC | \$11M

A comprehensive renovation of two historic residence halls built in 1946 required creative thinking to accommodate occupancy schedule complications. Fall semester enrollment peaks at UNCG in the Fall Semester. In order to use the space for fall, LA+I suggested a creative construction phasing sequence beginning after May graduation. Construction commenced through the first Summer with the buildings back at full occupancy in the Fall and some infrastructure work continuing on the basement level through the Fall. The building was vacated at the beginning of Winter break and construction extended through the Spring and following Summer.



NC A&T University Reonvation | Greensboro, NC | \$9.1M

Marteena Hall was constructed in 1980 and has not undergone any major renovations. The 72,000 SF classroom building includes a complete replacement of mechanical, electrical, and plumbing systems, the upgrade of the fire alarm system, light fixtures, window, waterproofing, stabilizing floor/foundation, and laboratory upgrades conducted in phases.

HIGHER EDUCATION EXPERIENCE

LAMBERT has worked successfully on several projects with various colleges and universities across North Carolina:

(* denotes a Project with the NC State Construction Office - SCO)

List of OEAs with Higher Education Institutions in NC:

Alamance Community College * **Graham, NC**
Architectural Agreement 2014-2015

Appalachian State University * **Boone, NC**
Architectural Agreement 2012-2015

Guilford Technical Community College * **Jamestown, NC**
Architectural Agreement 2010-2012

North Carolina A&T University * **Greensboro, NC**
Architectural Agreement 2014-2016
Architectural Agreement 2004-2005

UNC-Charlotte* **Charlotte, NC**
Architectural Agreement 2019-2020
Architectural Agreement 2021-2022

UNC Greensboro * **Greensboro, NC**
Architectural Agreement 2015-2018
Architectural Agreement 2012-2014
Architectural Agreement 2007-2009
Interiors Agreement 2015-2017
Interiors Agreement 2012-2014
Interiors Agreement 2009-2010

UNC-School of the Arts * **Winston-Salem, NC**
Architectural Agreement 2007-2010
Architectural Agreement 2021-2022

Wake Forest University **Winston-Salem, NC**
Architectural Agreements (consecutive yrs) 2018-2022

Winston-Salem State University * **Winston-Salem, NC**
Architectural Agreement 2002-2005

The following list represents additional and relevant Higher Education experience that further qualifies LAMBERT AI:

Rowan Cabarrus Community College **Salisbury, NC ***
• Design Guidelines
• Building 700 Remodel 9,000 SF

Alamance Community College **Graham, NC ***
• Maker Space

Appalachian State University **Boone, NC***
• Technology Store Upfit 2,275 SF
• Career Development Center 5,000 SF
• Anne Belk Hall Move Management
• College of Health Sciences Move Management
• Design Guidelines

Davidson College **Davidson, NC**

- Lula Bell Laundry Bldg Reno 5,000 SF
- Lavender Lounge & Belk Lab 2,300 SF
- Belk Residence Hall Renovations 6,000 SF
- New Self-serving laundries in 14 Residence Halls
- Hance Auditorium SF
- Cannon Dormitory restrooms SF

Duke University **Durham, NC**

- Smith Warehouse Student Services Center 90,000 SF
- Power House Renovation/TIP Department 27,000 SF
- Trent Hall Testing Center 2,500 SF
- P.M. Gross Hall Exterior Renovations

Elon University **Elon, NC**

- Moseley Center Renovation 25,000 SF
- Koury Athletic Center Renovations 24,000 SF
- Student Professional Development Center 4,500 SF
- Danieley Center Renovation 3,000 SF
- The Pendulum Newspaper Suite 2,500 SF
- Moseley Center 2nd Floor Renovation 25,000 SF



Guilford Technical Community College Jamestown, NC *

- Facilities Relocation Study

Lenoir Rhyne University Hickory, NC

- Cromer Center Dining Renovation 11,300 SF
- Cromer Center Lobby Renovation 7,500 SF

NC State University Raleigh, NC *

- Harris Hall Student Services Renovation 4,000 SF

Salem College Winston-Salem, NC

- Global Career & Leadership Commons 1,100 SF
- Bahnson & Schaffner Residence Hall Reno. 22,000 SF
- Student Center (LEED SILVER) 15,000 SF

NC A&T University Greensboro, NC *

- Martena Hall Renovation 72,000 SF

UNC-Charlotte Charlotte, NC *

- Student Union Suite Renovation 5,500 SF

UNC-Greensboro Greensboro, NC *

- Jackson Library Reno Feasibility Study 220,000 SF
- Elliott Univ. Center Design Standards 119,000 SF
- Guilford & Mary Foust Res. Hall Reno 72,000 SF
- Ragsdale Mendenhall Res. Hall Reno 75,200 SF
- Elliott Univ. Center Standards Impl 38,000 SF
- Library Archive Storage 30,000 SF
- Jackson Library Renovations 27,710 SF
- McNutt Technology Center 26,500 SF
- Jackson Library Digital Media Renovation 16,000 SF
- Jackson Library Ph I & II Renovations 10,000 SF
- Housing & Residence Life Resources 6,000 SF
- Jackson Library ERIT Renovation 4,300 SF
- Ragsdale Mendenhall Dormitory Renovation 90,000 SF

UNC-School of the Arts Winston-Salem, NC *

- Moore-Sanford Dormitory Renovations 43,000 SF
- E&F Residence Halls Study + Renovation 21,000 SF

Wake Forest University Winston-Salem, NC

- Welcome/Admissions Center (LEED GOLD) 22,000 SF
- Starling Hall Renovation Study 8,600 SF
- Brendle Recital Hall, Scales Fine Arts Ctr 6,100 SF
- Magnolia, Heritage and Autumn Rooms 4,000 SF
- Scales Fine Arts Center 4,000 SF
- Green Room Renovation 3,000 SF
- Babcock Residence Hall Renovation 3,000 SF
- Bostwick Residence Hall Renovation 2,000 SF
- Z. Smith Reynolds Library Interior Reno 2,000 SF

Winston-Salem State University Winston-Salem, NC *

- 1602 Lowery Street Renovation 28,000 SF
- Guard Houses & Entrance Drives Study
- Civitan Park Study





May 13, 2022

Mr. Timothy Rouse
UNCG Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412

Re: Request for Qualifications – Phillips Hawkins and Moore Strong Phased Resident Halls HVAC Replacement

MINORITY PARTICPATION PLAN

Dear Mr. Rouse,

We at Sigma Engineered Solutions, PC (Sigma) are always eager to use MWBE firms on projects where sub consultants are necessary.

We have ongoing relationships with several MWBE firms such as:

Lynch-Mykins (Structural)-WBE
EEC, Inc (Hazmat Design)-MBE

If we find that this project requires any of those services, we will reach out to the appropriate parties.

Sincerely,

A handwritten signature in blue ink that reads "Paul D. Romiti".

Paul Romiti, PE
Sigma Engineered Solutions, PC

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

UNC Greensboro

Phillips Hawkins and Moore Strong Phased Residence Halls HVAC Replacement

2. PUBLIC NOTICE DATE

04/21/2022

3. SOLICITATION OR PROJECT NUMBER

N/A

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Paul J. Romiti, PE, Vice-President

5. NAME OF FIRM

Sigma Engineered Solutions, PC

6. TELEPHONE NUMBER

919-840-9300

7. FAX NUMBER

n/a

8. E-MAIL ADDRESS

promiti@sigmaes.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

#	<i>(Check)</i>			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCONTRACTOR			
a.	<input checked="" type="checkbox"/>			Sigma Engineered Solutions, PC <input type="checkbox"/> CHECK IF BRANCH OFFICE	5909 Falls of Neuse Rd. Suite 101 Raleigh, NC 27609	Prime Designer, MEPF Engineer
b.			<input checked="" type="checkbox"/>	Lambert Architecture + Interiors <input type="checkbox"/> CHECK IF BRANCH OFFICE	408 N. Marshall Street Suite 300 Winston-Salem, NC 27101	Architectural Consultant
c.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
d.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
e.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		
f.				<input type="checkbox"/> CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

(Attached)





SIGMA ENGINEERED SOLUTIONS, PC

NC C-2490



Paul J. Romiti, PE

*Principal in Charge and
Chief Mechanical Engineer*

**Reginald Adams, PE,
LEED AP BD+C**

Chief Electrical Engineer

Brent Hanes, PE

Sr. Mechanical Engineer

Steven D. Richardson, EI

Sr. Electrical Designer

John R. Erickson, PE

Mechanical Engineer

L A M B E R T
ARCHITECTURE | INTERIORS

LAMBERT A+I

(Architectural Consultant)

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Paul J. Romiti, PE		13. ROLE IN THIS CONTRACT Principal In Charge / Chief Mechanical Engineer		14. YEARS EXPERIENCE	
				a. TOTAL 26	b. WITH CURRENT FIRM 19
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC Raleigh, NC					
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Mechanical Engineering, 1996			17. CURRENT PROFESSIONAL REGISTRATION NC #026581; MD; SC Mechanical Engineer		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Paul is the Vice-President and a Principal of Sigma Engineered Solutions, PC, and serves as senior mechanical engineer and project manager.					

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	Ragsdale Mendenhall Residence Hall Renovations UNCG – Greensboro, NC	2018	2020
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm In conjunction with Lambert A+I, Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. Engineering scope included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades and life safety generator, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements. Chief Mechanical Engineer.		
b.	Reynolds & Grogan Residential Halls – Renovations UNCG – Greensboro, NC	2012	2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of two 80,000 SF, 8-story residential dormitories. Scope included total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. Electrical scope of work included modernization of four existing elevators and installation of an emergency life safety generator. Mechanical/Plumbing/Fire Protection Engineer of Record.		
c.	Spartan Village II Residence Hall UNCG – Greensboro, NC	2016	2018
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma designed the MEPF systems for this new \$30M, 200,000 SF complex of mixed-use buildings consisting of apartment-style student housing and retail spaces at the edge of the UNCG Campus. Scope of work encompassed full HVAC, plumbing, electrical, telecommunications, fire protection systems, emergency generator, and ADA compliant spaces for the complex of four 4-story buildings. Design and construction were broken into phases consisting of first the building Core and Shell, and then the Fit-Ups for the individual retail spaces. Principal in Charge/Mechanical Engineer of Record.		
d.	HVAC Upgrades at Fletcher Residence Hall East Carolina University – Greenville, NC	2018	2019
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm In 2017, Sigma was awarded the prime design contract to design a makeup air system for the 8-story Fletcher Residence Hall on ECU campus. Scope of work included Installation of 100% OA make up unit and glycol hot water system. Design was completed in the Spring of 2018 and constructed over the Summer of 2019. Principal in Charge/Mechanical Engineer.		
e.	Tryon Palace-Governor’s Palace Main Building & Kitchen Building HVAC Repair NC Department of Cultural and Natural Resources – New Bern, NC	2017	2018
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma served as the prime consultant on this project, and provided engineering design and construction administration to replace the HVAC equipment in the Palace main building and the Palace’s kitchen building including cooling tower, boiler, hot water pumps, air handlers, chiller, condenser pumps, chilled water pumps, hot water air control system, chilled water air control system, and associated piping. Site remained fully functional and open to the public during construction. Principal-in-Charge and Chief Mechanical Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Reginald D. Adams, PE, LEED AP BD+C	13. ROLE IN THIS CONTRACT Chief Electrical Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 34	b. WITH CURRENT FIRM 19
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC Raleigh, NC			
16. EDUCATION (DEGREE AND SPECIALIZATION) BSEE Electrical Engineering, 1988		17. CURRENT PROFESSIONAL REGISTRATION NC #19658; MD, SC, VA, TN, GA Electrical Engineer	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Reggie is the President and a Principal of Sigma Engineered Solutions, PC; and serves as chief electrical engineer and project manager. He is a LEED Accredited Professional BD+C.			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	Ragsdale Mendenhall Residence Hall Renovations UNCG – Greensboro, NC	2018	2020
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm In conjunction with Lambert A+I, Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF dormitory renovation project. Engineering scope included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets, as well as fire alarm and sprinkler work in order to meet HVAC requirements. Electrical scope included power upgrades including a life safety generator. Chief Electrical Engineer.		
b.	Reynolds & Grogan Residential Halls Renovations UNCG – Greensboro, NC	2012	2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Engineering design and construction administration for total renovation of two 80,000 SF, 8-story residential dormitories. Electrical scope of work included modernization of four existing elevators and installation of an emergency life safety generator. Chief Electrical Engineer.		
c.	Weil Winfield Residence Hall Fire Alarm and Fire Sprinkler Replacement UNCG – Greensboro, NC	2018	2019
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project included a new mass notification fire alarm system in Weil Winfield and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad. Principal in Charge/ Chief Electrical Engineer.		
d.	Spartan Village II Residence Hall UNCG – Greensboro, NC	2016	2018
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma designed the MEPF systems for this new \$30M, 200,000 SF complex of mixed-use buildings consisting of apartment-style student housing and retail spaces at the edge of the UNCG Campus. Scope of work encompassed full HVAC, plumbing, electrical, telecommunications, fire protection systems, emergency generator, and ADA compliant spaces for the complex of four 4-story buildings. Design and construction were broken into phases consisting of first the building Core and Shell, and then the Fit-Ups for the individual retail spaces. Chief Electrical Engineer.		
e.	Weatherspoon Art Museum Gallery Lighting Upgrades UNC Greensboro – Greensboro, NC	2018	2019
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Lighting upgrades in three of the galleries at the Weatherspoon Art Museum on campus. Scope included replacement of existing track lighting and controls with new LED track lighting and digital control system, and miscellaneous electrical repairs. Principal in Charge/ Chief Electrical Engineer.		
f.	Taylor Theater Dimming System Renovations UNCG – Greensboro, NC	2019	2019
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma provided electrical and mechanical engineering design services for the upgrades to the dimming systems in Taylor Theater as well as power and HVAC upgrades in the Dimming Booth. ACM was also abated as part of the project. Chief Electrical Engineer.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Brent Hanes, PE	13. ROLE IN THIS CONTRACT Senior Mechanical / Plumbing / Fire Protection Engineer	14. YEARS EXPERIENCE	
		a. TOTAL 21	b. WITH CURRENT FIRM 15
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC Raleigh, NC			
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Industrial Engineering, 2001		17. CURRENT PROFESSIONAL REGISTRATION NC #34319; VA Mechanical Engineer	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Brent is a Senior Engineer of Sigma Engineered Solutions, PC; and serves as project manager, senior mechanical / fire protection / plumbing engineer, and construction administrator. Brent is a member of NFPA and ASHRAE.			

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	Weil Winfield Residence Hall Fire Alarm and Fire Sprinkler Replacement UNCG – Greensboro, NC	2018	2020
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Engineering design services for this 284 bed, 75,000 SF residence hall. Project scope included a new mass notification fire alarm system, and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad, security system enhancements, and replacement of an existing non-freeze wet-pipe sprinkler system in the attic with a dry-pipe sprinkler system. Fire Protection Engineer.		
b.	Reynolds & Grogan Residential Halls Renovations UNCG – Greensboro, NC	2012	2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations of two 80,000 SF, 8-story residential dormitories. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. Fire Protection Designer.		
c.	Bureau of Mines Renovations NC State University – Raleigh, NC	2019	2021
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma provided the MEPF scope for the renovations of the existing Bureau of Mines building on the main campus at NCSU. Scope of work included complete removal and replacement of HVAC systems, thermal imaging study, new plumbing water and waste, new fire protection system for currently unsprinklered building, complete removal and replacement of fire alarm system, and new power and receptacles and LED lighting, as well as new emergency egress lighting, and telecom system upgrades throughout. Mechanical/Plumbing/Fire Protection Engineer.		
d.	Kappa Alpha Theta Sorority House NC State University – Raleigh, NC	2018	2020
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm New construction for a 3-story sorority house housing +/- 40 students. The building includes a commercial kitchen. Scope of work includes full Fire Protection, Mechanical, Electrical and Plumbing design. Mechanical/Plumbing/Fire Protection Engineer and Project Manager		
e.	Carmichael Gym Renovations NC State University – Raleigh, NC	2014-2015	2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Renovations to the Men's and Women's Locker rooms, laundry room, mechanical room and surrounding auxiliary spaces. Mechanical/Plumbing/Fire Protection Engineer, and Construction Administration of mechanical & plumbing scope.		
f.	Energy Improvements & Laboratory Renovations, Phase 1 – Lineberger Comprehensive Cancer Center UNC CH – Chapel Hill, NC	2015	2015
	(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Mechanical, Plumbing, Fire Protection and Electrical upgrades and energy improvements for 5,000 SF renovations on 3 stories of the building. Mechanical, Plumbing and Fire Protection designer and Engineer of Record.		


E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME Steven Richardson, EI		13. ROLE IN THIS CONTRACT Senior Electrical Designer		14. YEARS EXPERIENCE	
				a. TOTAL 26	b. WITH CURRENT FIRM 19
15. FIRM NAME AND LOCATION (City and State) Sigma Engineered Solutions, PC Raleigh, NC					
16. EDUCATION (DEGREE AND SPECIALIZATION) BS Electrical Engineering, 1996			17. CURRENT PROFESSIONAL REGISTRATION		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.) Steve is a graduate electrical engineer and serves as electrical designer, project manager, and construction administrator.					
19. RELEVANT PROJECTS					
a.	(1) TITLE AND LOCATION (City and State) Weil Winfield Residence Hall Fire Alarm and Fire Sprinkler Replacement UNCG – Greensboro, NC			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) 2020
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Electrical and fire protection engineering design services for this 284 bed, 75,000 SF residence hall. Project scope includes a new mass notification fire alarm system, and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad, security system enhancements, and replacement of an existing non-freeze wet-pipe sprinkler system in the attic with a dry-pipe sprinkler system. Electrical designer and Construction Administration.					
b.	(1) TITLE AND LOCATION (City and State) Ragsdale Mendenhall Residence Hall Renovations UNCG – Greensboro, NC			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) 2020
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma provided the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. It included tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements. Electrical designer and Construction Administration.					
c.	(1) TITLE AND LOCATION (City and State) Reynolds & Grogan Residential Halls Renovations UNCG – Greensboro, NC			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2012	CONSTRUCTION (if applicable) 2015
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Engineering design and construction administration for total renovation of two 80,000 SF, 8-story residential dormitories. Electrical scope of work included modernization of four existing elevators and installation of an emergency life safety generator. Electrical designer and Construction Administration.					
d.	(1) TITLE AND LOCATION (City and State) Spartan Village II Residence Hall UNCG – Greensboro, NC			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2016	CONSTRUCTION (if applicable) 2018
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Sigma designed the MEPF systems for this \$30,000,000 mixed used residential/retail facility at the edge of the UNCG Campus. Scope of work encompassed full HVAC, plumbing, electrical, telecommunications, fire protection systems, emergency generator, and ADA compliant spaces for the complex of four 4-story buildings. Design and construction were broken into phases consisting of first the building Core and Shell, and then the Fit-Ups for the individual retail spaces. Electrical designer and Construction Administration.					
e.	(1) TITLE AND LOCATION (City and State) Replacement of Electrical Service Panels in Five Buildings UNC CH – Chapel Hill, NC			(2) YEAR COMPLETED	
				PROFESSIONAL SERVICES 2016	CONSTRUCTION (if applicable) 2018
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Electrical engineering design for replacement of outdated electrical equipment in Fetzer Gymnasium, Swain Hall, and Battle, Vance, and Pettigrew Halls. Equipment replaced included main service electrical switchgear, selected distribution and subpanels, and obsolete feeder wiring. Electrical designer and Construction Administration.					

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete on Section E for each key person)

12. NAME Stuart H. McCormick, AIA, LEED AP, NCARB	13. ROLE IN THIS CONTRACT Principal-in-Charge	
14. YEARS OF EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 38 27		15. FIRM NAME AND LOCATION <i>(City and State)</i> LAMBERT Architecture + Interiors 400 N. Marshal Street, Suite 300 Winston-Salem, NC 27101
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> Bachelor of Science in Design, Master of Architecture		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i> Registered Architect - NC, SC
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i> LEED AP, NCARB		

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	UNC Greensboro Ragsdale / Mendenhall Residence Hall Renovation (SCO) (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-Charge for the renovation of 75,200 SF Ragsdale Mendenhall Dormitory Renovation Projects. The Renovation will provide new mechanical and electrical systems to meet current standards, replace exterior windows for improved energy efficiency, ADA upgrades including the modernization of the existing elevator, and interior finishes throughout the building. The current construction budget of this project is \$12.8M	2016-2020	2019-2020
b.	Sentinel Commons Complex Upfits/Renovation, Winston-Salem NC (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-charge of new 137,000 SF design to transform an old building into a vibrant, multi-use complex. Redevelopment is ongoing and will include the creation of new entrances for each street facing facade and the removal of blank wall cladding replacement with new windows. Office tenants have begun to fill the upper floors in newly upfitted offices that showcase the building's history while also being open, dynamic and new. Project Cost \$10M	2016-2018	2019-Ongoing
c.	Duke University TIP Department Offices, Durham, NC (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-Charge for the renovation of a 1920s power plant building purchased by Duke University. The 27,000SF space had thr envelope repaired in construction and it provides offices for the Talent Identification Program department at Duke. The project includes the renovation of three finished floors and two unfinished floors. The largely open environments will become offices, yet retain the building's open, industrial character.	2013	2014
d.	NC A&T University Marteena Hall Renovation, Greensboro, NC (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-charge for this renovation that includes all design, construction, associated construction and other costs for renovating approximately 72,000 SF and providing other improvements. Heavy Systems, HVAC and FP upgrades \$ 9,100,000. (SCO)	2022-2023	Est. 2023
e.	Davidson College, Residence Life Offices, Davidson, NC (3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Principal-in-Charge of the renovation of the Lula Bell Houston Laundry building, originally built in 1919 on the campus of Davidson College. Updates to both the interior and exterior of the building include: a new entryway, an overall new layout, new finishes, and lighting as well as windows and doors.	2017	On-Going

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete on Section E for each key person)

12. NAME Peter J. Falk, AIA		13. ROLE IN THIS CONTRACT Project Manager		
14. YEARS OF EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 31 16		15. FIRM NAME AND LOCATION <i>(City and State)</i> LAMBERT Architecture + Interiors 418 N. Marshal Street, Suite 300 Winston-Salem, NC 27101		
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> Bachelor of Science in Architectural Technology			17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i> Registered Architect - NY	
18. OTHER PROFESSIONAL QUALIFICATIONS <i>(Publications, Organizations, Training, Awards, etc.)</i>				

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION <i>(City and State)</i>	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION <i>(if applicable)</i>
a.	UNC Greensboro Ragsdale / Mendenhall Residence Hall Renovation (SCO)	2016	2019-2020
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project Manager for the renovation of 75,200 SF Ragsdale Mendenhall Dormitory Renovation Projects. The Renovation will provide new mechanical and electrical systems to meet current standards, replace exterior windows for improved energy efficiency, ADA upgrades including the modernization of the existing elevator, and interior finishes throughout the building. The current construction budget of this project is \$12.8M		
b.	Sentinel Commons Complex Upfits/Renovation, Winston-Salem NC	2016 - 2018	2019-On-Going
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project Manager of new 137,000 SF design to transform an old building into a vibrant, multi-use complex. Redevelopment is ongoing and will include the creation of new entrances for each street facing facade and the removal of blank wall cladding replacement with new windows. Office tenants have begun to fill the upper floors in newly upfitted offices that showcase the building's history while also being open, dynamic and new. Project Cost \$10M		
c.	NC A&T University Marteena Hall Renovation, Greensboro, NC	2022-2023	Est 2023
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project Manager for this renovation that includes all design, construction, associated construction and other costs for renovating approximately 72,000 SF and providing other improvements. Heavy Systems, HVAC and FP upgrades \$ 9,100,000. (SCO)		
d.	Davidson College, Residence Life Offices, Davidson, NC	2017-2018	2019-2020
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project Manager of the renovation of the Lula Bell Houston Laundry building, originally built in 1919 on the campus of Davidson College. Updates to both the interior and exterior of the building include: a new entryway, an overall new layout, new finishes, and lighting as well as windows and doors.		
e.	Duke University, Smith Warehouse Student Services Depts., Durham, NC	2009	2014
	(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE <input checked="" type="checkbox"/> Check if project performed with current firm Project Manager for the completion of the renovation of the historic Smith Warehouse. The renovation included the placement of a food service facility, The Saladelia Café, for both student and employee usage, as well as a common-use kitchen for potlucks and catered events.		

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

1

21. TITLE AND LOCATION <i>(City and State)</i> Ragsdale Mendenhall Residence Hall Renovations (UNCG) Greensboro, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2018	CONSTRUCTION <i>(If applicable)</i> 2020

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER UNC Greensboro	b. POINT OF CONTACT NAME Mr. Stuart McCormick, AIA – Lambert Architecture	c. POINT OF CONTACT TELEPHONE NUMBER (336) 777-3657
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

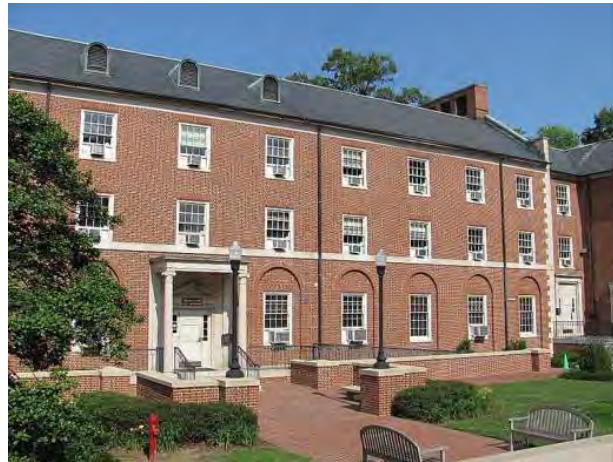
***Ragsdale Mendenhall Residence Hall Renovations
UNC Greensboro***

Sigma is currently a subconsultant to Lambert Architecture + Interiors on the renovation project at Ragsdale Mendenhall Residence Hall at UNCG. The project includes a comprehensive renovation that will provide:

- New mechanical and electrical systems throughout the building to meet current code standards
- Replacement of exterior windows for improved energy efficiency
- ADA upgrades including the modernization of the existing elevator
- Interior finishes through the building.

Sigma is providing the mechanical, electrical, plumbing and fire protection for this 90,000 SF project. Engineering scope of work includes tying the building to the existing campus chilled-water loop limited to 5 ft outside the building, providing new hydronic fan coil units, electrical upgrades, modernizing an existing elevator and renovating single occupancy toilets as well as fire alarm and sprinkler work in order to meet HVAC requirements.

Cost: \$10,000,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL, ELECTRICAL, FIRE PROTECTION, and PLUMBING ENGINEER, & CONSTRUCTION ADMINISTRATION
b.	(1) FIRM NAME LAMBERT AI	(2) FIRM LOCATION <i>(City and State)</i> WINSTON-SALEM, NC	(3) ROLE ARCHITECTURAL DESIGN SERVICES

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

2

21. TITLE AND LOCATION *(City and State)*

Reynolds Residence Hall Renovations (UNCG)
Greensboro, NC

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2013

CONSTRUCTION *(if applicable)*
2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER
UNC Greensboro

b. POINT OF CONTACT NAME
Mr. Eric Schoenagel, AIA - Little Diversified
Architecture

c. POINT OF CONTACT TELEPHONE NUMBER
(919) 474-2500

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

***Reynolds Residence Hall Renovations
UNC Greensboro***

Sigma designed the engineering systems for the renovations of this two 8-story, 80,000 SF residence hall with classrooms and gathering areas. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. AHU and fan coil units were being added and replaced.

Scope included a complete electrical renovation including new service, distribution, emergency generator, fire alarm and telecom.

Cost: \$7,000,000



- MEP/FP renovation
- DDC controls
- Air handling units
- State Construction Office-Capital Project

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL, ELECTRICAL, FIRE PROTECTION, PLUMBING ENGINEER
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

3

21. TITLE AND LOCATION *(City and State)*

Grogan Residence Hall Renovations (UNCG)
Greensboro, NC

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2014

CONSTRUCTION *(If applicable)*
2015

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER
UNC Greensboro

b. POINT OF CONTACT NAME
Mr. Eric Schoenagel, AIA - Little Diversified
Architecture

c. POINT OF CONTACT TELEPHONE NUMBER
(919) 474-2500

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

***Grogan Residence Hall Renovations
UNC Greensboro***

Grogan Residence Hall is the 'sister building' to Reynolds Residence Hall and this project followed immediately after the completion of Reynolds.

Sigma designed the engineering systems for the renovations of this two 8-story, 80,000 SF residence hall with classrooms and gathering areas. Scope includes total HVAC replacement, including air handling and fan coil units; addition of DDC controls with infrared room sensor to turn off lights and air conditioning if the room is unoccupied; and renovation of the bathrooms for ADA compliance. AHU and fan coil units were being added and replaced.

Scope included a complete electrical renovation including new service, distribution, emergency generator, fire alarm and telecom.

Cost: \$8,000,000



- MEP/FP renovation
- DDC controls
- Air handling units
- State Construction Office-Capital Project

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL, ELECTRICAL, FIRE PROTECTION, PLUMBING ENGINEER
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER 4				
21. TITLE AND LOCATION <i>(City and State)</i> Weil Winfield Residence Hall (UNCG) Greensboro, NC		22. YEAR COMPLETED <table border="1"> <tr> <td>PROFESSIONAL SERVICES</td> <td>CONSTRUCTION <i>(If applicable)</i></td> </tr> <tr> <td>2018</td> <td>2020</td> </tr> </table>	PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>	2018	2020
PROFESSIONAL SERVICES	CONSTRUCTION <i>(If applicable)</i>					
2018	2020					
23. PROJECT OWNER'S INFORMATION						
a. PROJECT OWNER UNC Greensboro	b. POINT OF CONTACT NAME Mr. Buddy Hale – UNCG Facilities Design and Construction	c. POINT OF CONTACT TELEPHONE NUMBER (336) 334-4431				
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>						

***Weil Winfield Residence Hall Fire Alarm and Fire Sprinkler Replacement
UNC Greensboro***

Sigma provided electrical and fire protection engineering design services for this 284 bed, 75,000 SF residence hall. Project scope included a new mass notification fire alarm system, and a new 500 kW generator to provide life safety and standby power for eight buildings on the UNCG Quad, security system enhancements, and replacement of an existing non-freeze wet-pipe sprinkler system in the attic with a dry-pipe sprinkler system.

Cost: \$1,900,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT		
a. (1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, ELECTRICAL and FIRE PROTECTION ENGINEER & CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER
5

21. TITLE AND LOCATION <i>(City and State)</i> Spartan Village II Residence Hall (UNCG) Greensboro, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2016	CONSTRUCTION <i>(If applicable)</i> 2018

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER UNC Greensboro	b. POINT OF CONTACT NAME Mr. Eric Schoenagel, AIA - Little Diversified Architecture	c. POINT OF CONTACT TELEPHONE NUMBER (919) 474-2500
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

***Spartan Village II Residence Hall
UNC Greensboro***

In conjunction with Little Diversified Architectural Consulting, Sigma is designed the engineering systems for a new quad complex of mixed-use buildings consisting of apartment-style student housing and retail spaces. Design and construction were broken into phases consisting of first the building Core and Shell, and then the Fit-Ups for the individual retail spaces.

Sigma provided design for HVAC, plumbing, electrical, telecommunications, fire protection systems, and ADA compliant spaces for the complex of four 4-story buildings, totaling approximately 200,000 SF.

Cost: \$30,000,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL, ELECTRICAL, FIRE PROTECTION, and PLUMBING ENGINEER, & CONSTRUCTION ADMINISTRATION
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT <i>(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)</i>		20. EXAMPLE PROJECT KEY NUMBER <p style="text-align: center;">6</p>
21. TITLE AND LOCATION <i>(City and State)</i> Health and Human Performance Room 101 (UNCG) Greensboro, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2012	CONSTRUCTION <i>(If applicable)</i> 2013
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER UNC Greensboro	b. POINT OF CONTACT NAME Mr. Robert Stevenson, AIA - Davis Kane Architects, PA	c. POINT OF CONTACT TELEPHONE NUMBER (919) 833-3737
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT <i>(Include scope, size, and cost)</i>		

***Health and Human Performance Room 101 – Renovation and Addition
UNC Greensboro***

The HHP building at UNC Greensboro is the athletic facility for the university. The racquetball courts were no longer used; and, therefore, the Athletic department decided to add a floor to the two-story high area and create offices, seminar rooms and a large classroom for the department (total of 5,000 SF). A new air handling unit for the first floor with VAV units with hot water reheat was added. The existing air handling unit that used to serve the courts, as well as offices on the second floor, was reused by adding a new fan and motor suitable for VFD usage and new shut-off VAV boxes with hot water reheat were added. The sprinkler system was redesigned to serve both floors.

The electrical work included new power and lights panels for the new first floor and revision to existing electrical distribution for the second floor. A new fire alarm system was provided and telecomm system was revised.

Cost: \$650,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS, PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE MECHANICAL, ELECTRICAL ENGINEER, & CONSTRUCTION ADMINISTRATION

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

7

21. TITLE AND LOCATION <i>(City and State)</i> Fletcher Residence Hall Make-Up Air (ECU) Greenville, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2018	CONSTRUCTION <i>(If applicable)</i> 2019

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER East Carolina University	b. POINT OF CONTACT NAME L.L. Everett – ECU Project Manager	c. POINT OF CONTACT TELEPHONE NUMBER (252) 328-6858
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

***Fletcher Residence Hall Make-Up Air
East Carolina University***

Sigma was retained as the prime designer on this renovation project at East Carolina University.

Fletcher Residence Hall is a 60,000sf high rise dormitory on ECU main campus. It had been expressing signs of overall negative pressurization due to a progression of energy saving measures, code revisions, and a recent bathroom renovation project. This project corrected the building negative pressure by introducing an increased volume of conditioned outside air into the space. The mechanical scope included installing new 100% Outside Air, DX Packaged Make-Up Air units capable of providing requisite outside air to each floor to make up for bathroom and other exhausts and support for these units involved a new glycol hot water generation station. All new equipment was integrated into a new BAS.

Cost: \$775,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MECHANICAL, ELECTRICAL, PLUMBING, ENGINEER & CONSTRUCTION ADMINISTRATION
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

8

21. TITLE AND LOCATION <i>(City and State)</i> Morrison Residence Hall Renovations (UNC CH) Chapel Hill, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2005	CONSTRUCTION <i>(If applicable)</i> 2009

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER UNC Chapel Hill	b. POINT OF CONTACT NAME Mr. Eric Schoenagel, AIA – Little Diversified Arch.	c. POINT OF CONTACT TELEPHONE NUMBER (919) 474-2500
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

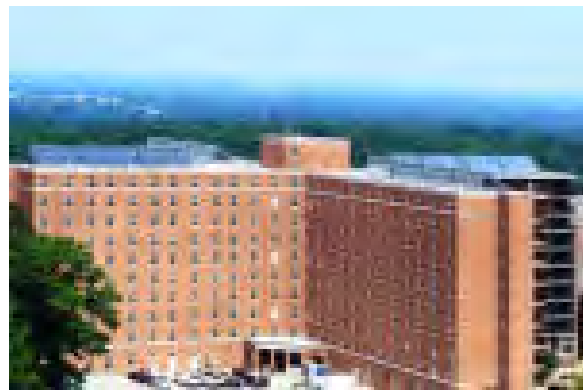
***Morrison Residence Hall Renovations
UNC Chapel Hill***

Sigma provided design for total renovation of this 200,000 SF, 10-story building infrastructure including new HVAC, plumbing, electrical, telecommunications, and fire protection systems. Scope included ADA renovations, installation of four new elevators and a fire command center, and space redesign to reduce total available beds by 25%.

This project was selected by State Energy Office to be designed with features equal to LEED Silver Rating. The design included a solar domestic hot water heating system consisting of 172 solar panels and an underground storage tank to generate 6,000 gallons of hot water at peak hours. A cutting-edge energy monitoring system was installed so students could monitor their personal resource consumption.

Morrison Residence Hall and 13 other buildings competed in a national challenge sponsored by the EPA's Energy Star National Building program to measure and reduce energy use over the year that ended August 31, 2010. Morrison Hall won the competition by reducing consumption by 35.7 percent – a savings of \$250,000 for the period.

Cost: \$26,000,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE ELECTRICAL, FIRE PROTECTION, MECHANICAL AND PLUMBING ENGINEER
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER
9

21. TITLE AND LOCATION <i>(City and State)</i> Energy Improvements to Partners I and Research II (NCSU) Raleigh, NC	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2015	CONSTRUCTION <i>(If applicable)</i> 2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER NC State University	b. POINT OF CONTACT NAME Mr. David Hammock – NCSU Project Manager	c. POINT OF CONTACT TELEPHONE NUMBER (919) 515-2030
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Energy Improvements to Partners I and Research II, NC State University

Sigma provided mechanical and electrical engineering design, and construction administration for the replacement of existing mechanical systems in these two laboratory and office buildings to increase energy efficiency and tenant comfort.



Cost: \$2,800,000

*This project was like performing a heart transplant on a patient without them knowing it.”
 – M. Michaelson, NCSU Construction Manager*

The Partners I building is 78,500 SF and was built in 1992. The HVAC systems were all low-efficiency DX split and packaged systems. This project replaced all of the existing DX equipment with high efficient, high-comfort hydronic air handlers and connected the building to nearby campus steam and chilled water. Sigma worked closely with NCSU facility ops and the Centennial Campus Development Office to completely convert the HVAC systems in this laboratory and office building with zero interruptions to existing tenants. The project was phased and remained fully occupied during all phases of construction.

The Research II building was another early 90's laboratory/office building that originally housed the NCSU contributions to NASA Mars rover project. The systems were aging and inefficient and laboratory exhaust was twice what the building actually needed. This project combined multiple smaller air handlers in to more efficient systems, and rebalanced exhaust air for current laboratory needs.
Cost: \$1,500,000



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a.	(1) FIRM NAME SIGMA ENGINEERED SOLUTIONS PC	(2) FIRM LOCATION <i>(City and State)</i> RALEIGH, NC	(3) ROLE PRIME DESIGNER, MECHANICAL, ELECTRICAL ENGINEER
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F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

6

21. TITLE AND LOCATION (City and State)

22. YEAR COMPLETED

Guilford & Mary Foust Residence Halls Renovation, UNCG, Greensboro, NC 2009

PROFESSIONAL SERVICES

CONSTRUCTION (if applicable)

2010

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

UNCG Facilities, Design & Const.

b. POINT OF CONTACT NAME

Douglas Cato, Construction PM

c. POINT OF CONTACT TELEPHONE NO.

336.334.5269

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (include scope, size, and cost)

UNCG Guilford & Mary Foust Residence Halls



Guilford Hall and Mary Foust Hall are two existing Dormitory buildings (at 36,000SF each) on the UNCG campus built from the same set of plans in the late 1920s. These three-story buildings had undergone a number of mechanical and electrical upgrades over time but are substantially the original construction. Due to the age and condition of the buildings, LAMBERT accomplished upgrades and corrected deficiencies as follows:

- Installed a complete wet-pipe fire sprinkler system in each building.
- Replaced existing single pane wood windows with thermo-pane aluminum windows in each building.
- Upgraded the existing fire alarm system for mass notification in common areas in each building.
- Resolved dead-end corridor issues identified by the Department of Insurance, DOI, in each building.
- Renovated existing group toilet room facilities (proposed configurations, far right) with new plumbing fixtures and finishes, providing increased handicap accessibility in each building toilet room.
- Renovated the Parlor finishes of Guilford Hall and provide handicap accessibility without reducing fixture quantities.
- Renovated corridor finishes including ceilings; metal soffits to enclose sprinklers; paint, and carpet.

The total project cost for these was \$3M.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	LAMBERT Architecture + Interiors	Winston-Salem, NC	Architectural Design Services - Prime
b.			

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Paul J. Romiti, PE	Principal in Charge, and Chief Mechanical Engineer	✓	✓	✓		✓	✓	✓	✓	✓	
Reggie Adams, PE, LEED AP	Chief Electrical Engineer	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Brent Hanes, PE, LEED AP	Senior Mechanical, Fire Protection and Plumbing Engineer	✓	✓	✓	✓	✓	✓		✓		
Steven D. Richardson, EI	Sr. Electrical Designer	✓	✓	✓	✓	✓	✓		✓	✓	
Stuart H. McCormick, AIA, LEED AP, NCARB	Architectural Consultant	✓									✓
Peter J. Falk, AIA	Architectural Consultant	✓									✓

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Ragsdale Mendenhall Residence Hall Renovations (UNCG)	6	Health and Human Performance Room 101 – Renovation and Addition (UNCG)
2	Reynolds Residence Hall Renovations (UNCG)	7	Fletcher Residence Hall Make-Up Air (ECU)
3	Grogan Residence Hall Renovations (UNCG)	8	Morrison Residence Hall Renovations (UNC CH)
4	Weil Winfield Residence Hall Fire Alarm and Fire Sprinkler Replacement (UNCG)	9	Energy Improvements to Partners I and Research II (NCSU)
5	Spartan Village II Residence Hall (UNCG)	10	Guilford & Mary Foust Residence Halls Renovations (UNCG)



H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE



32. DATE

05/13/22

33. NAME AND TITLE

PAUL J. ROMITI, PE, VICE-PRESIDENT

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (or Branch Office) NAME SIGMA ENGINEERED SOLUTIONS, PC			3. YEAR ESTABLISHED 2003	4. UNIQUE ENTITY IDENTIFIER 177422818
2b. STREET 5909 FALLS OF NEUSE RD., SUITE 101			5. OWNERSHIP	
2c. CITY RALEIGH	2d. STATE NC	2e. ZIP CODE 27609	a. TYPE PROFESSIONAL CORPORATION	
6a. POINT OF CONTACT NAME AND TITLE REGINALD D. ADAMS, PE, PRINCIPAL			b. SMALL BUSINESS STATUS SMALL BUSINESS	
6b. TELEPHONE NUMBER (919) 840-9300		6c. E-MAIL ADDRESS radams@sigmaes.com		
7. NAME OF FIRM (If Block 2a is a Branch Office)				

8a. FORMER FIRM NAME(S) (If any)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	ADMINISTRATIVE	2		F03	FIRE PROTECTION	2
08	CADD TECHNICIAN	2		S02	FIRE ALARM	2
21	ELECTRICAL ENGINEER	3		E03	ELECTRICAL DESIGN	2
42	MECHANICAL ENGINEER	6		H04	HVAC	3
				H08	HISTORICAL PRESERVATION	2
				L01	LABS: MEDICAL RESEARCH FACILITIES	2
				P07	PLUMBING & PIPING DESIGN	2
				S06	SOLAR ENERGY UTILIZATION	1
				R07	RESEARCH FACILITIES	2
				B01	DORMITORIES	2
				A11	AUDITORIUM & THEATRES	2
				E02	EDUCATIONAL FACILITIES AND CLASSROOMS	4
	Other Employees					
	Total	13				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)	a. Federal Work	
	b. Non-Federal Work	5
	c. Total Work	5
	PROFESSIONAL SERVICES REVENUE INDEX NUMBER	
1. Less than \$100,000	6. \$2 million to less than \$5 million	
2. \$100,000 to less than \$250,000	7. \$5 million to less than \$10 million	
3. \$250,000 to less than \$500,000	8. \$10 million to less than \$25 million	
4. \$500,000 to less than \$1 million	9. \$25 million to less than \$50 million	
5. \$1 million to less than \$2 million	10. \$50 million or greater	

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE 01/13/22
c. NAME AND TITLE REGINALD D. ADAMS, PE, PRESIDENT SIGMA ENGINEERED SOLUTIONS, PC	



ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any)

04192022

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME LAMBERT Architecture + Interiors			3. YEAR ESTABLISHED 1989		4. DUNS NUMBER 80-000-3154-
2b. STREET 408 N. Marshall St., Suite 300			5. OWNERSHIP		
2c. CITY Winston-Salem			2d. STATE NC	2e. ZIP CODE 27101	a. TYPE SubChapter S
6a. POINT OF CONTACT NAME AND TITLE Stuart H. McCormick, AIA, LEED AP, NCARB - President / Design Principal			7. NAME OF FIRM (if block 2a is a branch office) n/a		
6b. TELEPHONE NUMBER 336.777.3657		6c. EMAIL ADDRESS smccormick@lambertai.com			
8a. FORMER FIRM NAME(S) (if any) n/a			8b. YR. ESTABLISHED n/a		8c. DUNS NUMBER n/a

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (See Below)
		(1) FIRM	(2) BRANCH			
06/48	Architect + Project Management	4		E02	Educational Facilities; Classrooms	6
48	Project Manager	1		H08	Historical Preservation	2
37	Interior Designer	2		I05	Interior Design; Space Planning	3
08	CADD Technicians	2		O01	Office Buildings; Industrial Parks	6
02	Administrative	3		R08	Research Facilities	5
				S11	Sustainable Design	2
	Other Employees					
	Total	12				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)


a. Federal Work	1
b. Non-Federal Work	5
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,000 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 			b. DATE May 2, 2022		
c. NAME AND TITLE Stuart H. McCormick, AIA, LEED AP, NCARB - President and Design Principal					