



CHARLOTTE COUNTY
FLORIDA

REQUEST FOR PROPOSAL

BUILDING AUTOMATION CONSULTANT

AUGUST 25, 2020

PREPARED BY

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU



LETTER OF INTEREST

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August 21, 2020

Senior Division Manager - Purchasing, Charlotte County Administration Complex
18500 Murdock Circle, Suite 344, Port Charlotte, Florida 33948-1094

RE: RFP 2020000552 Building Automation Consultant

Dear Senior Division Manager and Selection Committee,

We understand the importance of integrating all Charlotte County facility systems into one building automation system and developing a standard to be used in future facility construction. Having one global system and unified interface for all County facilities can provide many benefits to Charlotte County including improved occupant comfort, higher efficiency of building systems, reduction in operating and maintenance costs, streamlined maintenance operations, and improved life cycle of utilities.

As the Project Manager for this project, I feel confident that my background as a controls project developer for a major OEM has given me the firsthand experience needed to successfully assess your existing infrastructure and recommend an enterprise level building automation system solution for Charlotte County. Having an expert in controls and building automation with over a decade of experience in the industry sets Matern apart from nearly every other engineering firm in the industry today.

With controls being a highly specialized discipline, both owners and the engineering firms they hire to represent them often find themselves at a disadvantage in terms of technical expertise when selecting, working with, or negotiating with BAS vendors. We will work hand in hand with Charlotte County, so this will never be the case because an industry insider will be working directly for the County with their best interests in mind at all times.

Our team has worked with Charlotte County for 15 years, and we have extensive knowledge of your facilities and standards, as well as local codes, governing agencies and various Southwest Florida design considerations as they pertain to building automation systems.


We are currently working on the Charlotte County Justice Center expansion and controls retrofit project, which includes an evaluation of the legacy BAS in the building and development of a specification to facilitate the integration of existing LonTalk based controls hardware with new BACnet based systems. We've also worked on the building automation system for the Community Development Facility expansion project, among many other projects we've completed for the County.

Our philosophy for accomplishing our projects is built on "teamwork". An all-inclusive process that allows our team and your facilities and maintenance teams to work hand in hand to provide professional, effective and efficient services for your construction and renovation projects. We stand ready to be your partner in this endeavor.

I hope the enclosed information will demonstrate the experience, integrity, and quality solutions you need for this project. I look forward to working with you and your team, and respectfully ask that Charlotte County award our team this important contract.

Thank you for your consideration,

Nojan "NJ" Nowakhtar, LEED AP
Project Manager, Matern Professional Engineering

A black and white photograph of an industrial facility, likely a water treatment plant, featuring large, insulated pipes and storage tanks. The image is split vertically: the left half is in grayscale, and the right half is overlaid with a solid blue color. The text is positioned on the blue side.

SECTION I

PROPOSED TEAM

MATERN
ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

Matern Professional Engineering is an established mechanical, electrical, plumbing, fire protection, technology, commissioning & energy engineering firm. Founded in 1984, we have offices in Maitland, Fort Myers, and Tampa, Florida; we are also licensed in Alabama, Georgia, North Carolina, Pennsylvania, South Carolina, Tennessee, Texas and Virginia.

Our staff includes experienced electrical, mechanical, plumbing, fire protection, technology, energy and commissioning professional engineers. Their credentials also include LEED Accredited Professionals, Certified Energy Managers, Commissioning Authorities, Registered Communications Distribution Designers and other specialty certifications within the engineering industry. These qualifications coupled with real world experience enable us to provide consultation and design services for any type of facility.

Our market sectors include aviation, corrections, central energy plants, education (K-12, private and higher), healthcare, hospitality, municipal/government, public safety, office spaces, retail and tenant build outs. We have experience ranging from minor projects to large multi-million dollar facilities.

Our experience in leading projects gives the ability to understand scheduling, budgeting, safety, minimal facility interruption and other aspects required to successfully construct a project. We understand and acknowledge that in today's economy projects may be small in size, under time and budget constraints, phased or performed on occupied campuses/facilities. We have the experience and staff necessary to effectively handle any of these situations. Our number one priority is to protect your interests and make your job easier.

BUSINESS STRUCTURE & HISTORY

Matern was incorporated in 1984 in the State of Florida, and until 2013, it was solely owned by Douglas P. Matern. Thereafter, three senior managers acquired 12.5% ownership. Together they make up our Executive Committee overseeing the financial health and client satisfaction for the firm. This team is strongly supported by a 10-member Management Committee, which not only helps oversee projects in design and construction, but assists in workload projections, man power allocation, client satisfaction, streamlining processes, and mentoring younger staff. Many of the members of both committees have been with Matern for 10-25 years. In 2005, the firm established an office in Fort Myers, Florida.

With a strong and consistent management team, dedicated & experienced staff, and effective in-house quality control, Matern offers financial stability for years to come. As a client centric firm, we pride ourselves on quick responses, complete flexibility and pragmatic decision making it our endeavor to "engineer building systems that work for you".



OUR MISSION

We are in the people business.

Without people, we have no clients and we have no product to offer.

The most important thing to maintain longevity is to take care of our staff and clients.

This commitment led us to develop these core values.



OUR CORE VALUES

Possess a "Can Do" Attitude

Show Respect

Behave Ethically

Demonstrate Integrity & Accountability

Commitment to Excellence

Open to Innovation

Embrace Diversity

Encourage Growth

Help People

Maintain a Balance of Work & Home

MATERN'S IN-HOUSE PROFESSIONAL SERVICES



MECHANICAL DESIGN

Heating, Ventilation, & Air Conditioning Systems; Central Energy Plants, Energy Management Systems, Life Cycle Cost Analysis, Geothermal Technology, Thermal Energy Storage, Controls, Humidity Control, Primary Mechanical Systems, Secondary HVAC Systems, Perimeter Systems, Exhaust & Filtration Systems, Heat Recovery Systems, Campus Utility Distribution, System Modeling, Building Automation Systems



ELECTRICAL DESIGN

Power, Lighting, Lightning Protection, Site Lighting, Power Generation & Distribution, Uninterruptible Power Systems, Emergency Power Distribution, Emergency Generators, Fire Alarm/Detection, Life Safety Systems, Sub-metering



TECHNOLOGY DESIGN

Fiber Optics, Audio/Voice/Data, Telephone & Telecommunication Systems, Security Systems, Intercom & Paging Systems, CCTV, Technology Enhancements and Retrofits, Infrastructure Planning, Distributed Television Systems, BIDS/FIDS/GIDS



ENERGY ANALYSIS

In-Depth Utility Analysis, Energy Conservation Measures, Power Density Analysis, Code Compliance Documentation, Energy Rebates, Energy Modeling & Auditing



COMMISSIONING

LEED, Enhanced, Fundamental, Retro-Commissioning, Re-Commissioning



PLUMBING DESIGN

Acid Drain, Waste & Vent, Grease & Sanitary Drain Systems; Compressed Air Systems, Domestic Water, Booster Pump Systems, Storm Drainage Systems, Fuel-Gas Piping & Medical Gas Systems, Water Purification/Conditioning, Solar Heating, Storm Water Recovery, Grey Water Systems, Code Compliance



FIRE PROTECTION DESIGN

Code Analysis and Research, Electric & Diesel Fire Pump, Early Suppression Fast Response System, Hydrant Flow Testing, Hydraulic Calculations, Special Hazard Design, Sprinkler System Design, Storage System Design, Water Supply Analysis, Water Wall/Deluge System



LIGHTING DESIGN

Concept Development, Control System Design, 3-D Visualization, Design Sketches, Design Charrettes, Photometrics, Luminaire Layouts & Specifications



SUSTAINABLE DESIGN

LEED Analysis and Support, Green Globes Analysis & Support, Daylighting & Daylight Harvesting Design and Support, Load Shedding Design, Renewable Energy



BUDGETING & COST TRACKING

Overall Feasibility Studies, Phase Budget Reports, Bidding and Negotiations, Bid Validation and Acceptance, Bidding Support

TEAM PROPOSED FOR THIS PROJECT

PROJECT TEAM OVERVIEW



K. Todd Griffith, PE

Principal-In-Charge
Quality Control



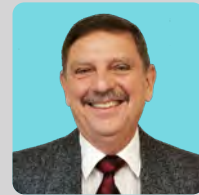
NJ Nowakhtar, LEED AP

Project Manager
Controls & Energy Engineer



Scott Lain, PE

Sr. Electrical Engineer



Robert Moss, PE

Mechanical Engineer



POINT OF CONTACT

NJ Nowakhtar, LEED AP will be the primary contact between Charlotte County and any agency or design/construction firm that is involved in the project construction process. NJ will lead the project team, assign tasks to his team and require each of the team members to be fully accountable for their required tasks. He will be responsible for coordinating all communication efforts and delegating assignments to key personnel on the project.

This dedicated team will work hand-in-hand with your representatives, regulatory agencies, permitting agencies, local power companies and other entities, such as consulting architects and engineers to successfully complete any project assigned. You can count on this team to be there any time you are in need. Our entire team is made up of full time employees.



TEAM WORK / FLEXIBILITY

We understand that responsiveness is one of the most important factors in leading and completing any construction project, especially a time sensitive, fast tracked project. Waiting lengthy time periods for questions to be answered in order to move forward isn't an option. Our team's schedules will remain flexible to meet with your staff when needed.



PROJECT MEETINGS

Critical project meetings should include your representatives, regulatory agencies and other consultants as needed. Face-to-face meetings are optimal to expedite the understanding of our developing documents, but meeting in person is not always feasible. In those instances, our team is available via phone, cell phone, video conference and e-mail. E-mail is accessible through cell phone as well as secured VPN, if they are out of the office. We have found conducting live Bluebeam REVU sessions between parties involved allows for real-time and anytime coordination on projects. We also utilize a variety of secured file transfer sites for exchanging large files between project team members, if necessary. We have these methods in place to help ensure that projects continue to move forward despite the fast pace of the current world.



METHODS OF COMMUNICATION & SHARING OF INFORMATION

All communications are saved on our server under the project folder. This allows for easy reference should a question arise as the project moves forward. Anyone on our project team will be fully accessible to your staff at all times. The key is to always have staff available to keep the project moving, especially with short design and construction schedules. This helps prevent bottlenecks in times when you need an answer and the Project Manager is at a meeting or in the field. You can count on this team to be there any time you are in need.

TEAM PROPOSED FOR THIS PROJECT

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K. TODD GRIFFITH, PE LEED AP

SR. VICE PRESIDENT / DIRECTOR OF SOUTHWEST FLORIDA DIVISION

ROLE

Principal-In-Charge
Quality Control

LOCATION

7680 Cambridge Manor
Place, Suite 101
Fort Myers, FL 33907

YEARS EXPERIENCE

12 Years at Matern
14 Years with Other Firms

EDUCATION

Bachelor of Mechanical
Engineering, Auburn University

REGISTRATIONS

Registered Mechanical
Engineer, Florida #67083,
Alabama #22729,
Pennsylvania #090484,
Georgia #038907

CERTIFICATIONS

LEED Accredited Professional

Mr. Griffith has over 26 years of experience in consulting engineering, and is a Senior Vice President and the Director of the Southwest Florida Division at Matern. He has been directly involved in over 20 million square feet of new construction and renovation during his career. Todd's expertise is in HVAC system design and project management. He has an extensive resume of commercial experience including projects for Charlotte County Government, Collier County Government, Lee County Government and Sarasota County Government.

A majority of Todd's recent projects have been HVAC renovation projects in various types of existing buildings including office spaces, schools, museums, and places of worship. Many times the design of these projects are required to account for keeping the building occupied and operational during construction. He also has several performing arts projects on his resume where acoustic considerations are of primary concern.

Todd has extensive experience in HVAC systems including: chilled water (air cooled and water cooled), water source heat pump systems, split system DX, packaged DX, dedicated outdoor air systems, energy recovery, desiccant technology, geothermal heat pump systems, hot gas reheat, steam production & distribution, heating hot water distribution, cooling towers, evaporative fluid coolers, heat exchangers, VAV air distribution systems, constant volume air distribution systems, boiler systems (steam & hot water), laboratory fume hood exhaust & makeup air systems, and DDC control systems.



Todd will be the Principal-in-Charge for this project, and will not be substituted without the express permission of the County.



NOJAN "NJ" NOWAKHTAR LEED AP

PROJECT MANAGER / CONTROLS & ENERGY ENGINEER

ROLE

Project Manager
Primary Point of Contact

LOCATION

130 Candace Drive
Maitland, FL 32751

YEARS EXPERIENCE

2 Years at Matern
13 Years with Other Firms

EDUCATION

Bachelor of Science,
Mechanical Engineering,
University of Central Florida

CERTIFICATIONS

LEED Accredited Professional

Mr. Nowakhtar brings with him over 12 years of experience as a mechanical engineer with an extensive background in building automation and HVAC controls. Throughout NJ's career, he has played an active role in every major phase of the construction process. This includes initial planning, budgeting, design, risk analysis, installation, testing and commissioning as it relates to building automation systems. NJ has experience in the healthcare, hospitality, K-12 & higher education, commercial office space, and state & local government markets.

With over a decade of experience with major Original Equipment Manufacturers (OEMs) as a controls engineer and project developer, NJ is able to anticipate how design decisions will be perceived by members of the contracting chain and the net effects of the decisions in real world applications. He has worked with end users, building owners and facility managers, to optimize control systems for their individual operational needs and provide appropriate levels of service & maintenance. This experience allows him to drive design decisions which facilitate optimum levels of system performance over the entire life cycle of a building while giving end users the flexibility they desire to operate their systems in accordance with their standards.

NJ's career highlights include the comprehensive design of a complete controls retrofit at One Orlando Centre, a twenty story high-rise in downtown Orlando, where he developed a custom sequence of operation which allowed the client to operate their central energy plant in the most efficient configuration based on seasonal weather changes, and the development of a controls system upgrade at Coleman Federal Prison which required formulation of a plan to execute extensive installation and repair work in an active prison facility along with an integration between multiple building automation platforms to comply with multiple Energy Conservation Measures (ECMs).



NJ will be the Project Manager for this project, and will not be substituted without the express permission of the County.

TEAM PROPOSED FOR THIS PROJECT

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SCOTT LAIN, PE LEED AP BD+C

SR. PROJECT MANAGER / SR. ELECTRICAL ENGINEER

ROLE

Sr. Electrical Engineer

LOCATION

7680 Cambridge Manor
Place, Suite 101
Fort Myers, FL 33907

YEARS EXPERIENCE

7 Years at Matern
8 Years with Other Firms

EDUCATION

Bachelor of Science,
Electrical Engineering,
University of Central Florida

REGISTRATIONS

Registered Electrical Engineer,
FL #69099

CERTIFICATIONS

LEED Accredited Professional

Mr. Lain brings with him 15 years of experience in electrical engineering. Scott is currently the Senior Project Manager and Electrical Engineer in Matern's Southwest Florida office. During his tenure at Matern, Scott has designed for various project types such as large residential high rise buildings, religious establishments, renewable energy systems, educational facilities, municipal facilities, federal/military facilities, commercial buildings, and hospitality facilities. His overall responsibilities include project management, quality control, design, specifications, scheduling & technical support for electrical, communication systems, and renewable systems design.

Scott specializes in the implementation of Building Information Modeling (BIM) in building design, photovoltaic & renewable energy, and life cycle cost analysis for engineering systems, interior/exterior lighting design, daylight modeling, electrical power distribution, standby/emergency power systems and lighting control design. He strives to provide our clients with the most effective and efficient systems design possible by providing his expert skills to each project.



ROBERT MOSS, PE

MECHANICAL ENGINEER

ROLE

Mechanical Engineer

LOCATION

7680 Cambridge Manor
Place, Suite 101
Fort Myers, FL 33907

YEARS EXPERIENCE

2 Years at Matern
27 Years with Other Firms

EDUCATION

Bachelor of Science,
Mechanical Engineering,
University of Akron

REGISTRATIONS

Registered Mechanical
Engineer, FL #61460

Mr. Moss is a registered Professional Engineer with 29 years of experience as a mechanical engineer. Robert obtained his Bachelor's Degree in Mechanical Engineering from the University of Akron and has completed 30 hours towards his Master's degree. He has participated in a wide range of project types and associated professions including custom air handling systems, design/build, and AHJ plans review.

Robert has been the Engineer of Record for HVAC, plumbing, electrical, and fire protection, and was previously the president/owner of Associated Engineering Services in Fort Myers. His most notable project was the Akron-Summit County Public Library in Akron, Ohio, a 340,000 square feet project which included a custom 150,000 CFM penthouse air handling unit and 600 tons of total chilled water. He has also currently worked on projects for Lee Health, Charlotte County School Board, Collier County Public Schools, and Lee County School Board.

Robert is experienced in working with clients to develop mechanical systems that meet precise owner standards and needs. His current responsibilities include design, specifications, scheduling and technical support for the mechanical systems design in Matern's Southwest Florida office.

State of Florida Department of State

I certify from the records of this office that MATERN PROFESSIONAL ENGINEERING, INC. is a corporation organized under the laws of the State of Florida, filed on March 4, 1988, effective February 29, 1988.

The document number of this corporation is M71298.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on January 3, 2020, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Third day of January, 2020*



Randy Be
Secretary of State

Tracking Number: 7296786146CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

Ron DeSantis, Governor
Halsey Beshears, Secretary

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
GRIFFITH, K. TODD
ADDRESS REDACTED
LICENSE NUMBER: PE67083
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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Ron DeSantis, Governor
Halsey Beshears, Secretary

STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE
PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
LAIN, SCOTT M.
ADDRESS REDACTED
LICENSE NUMBER: PE69099
EXPIRATION DATE: FEBRUARY 28, 2021
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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS
THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE
PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
MATERN PROFESSIONAL ENGINEERING, INC.
130 CANDACE DRIVE
MAITLAND FL 32751
LICENSE NUMBER: CA5096
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MOSS, ROBERT E
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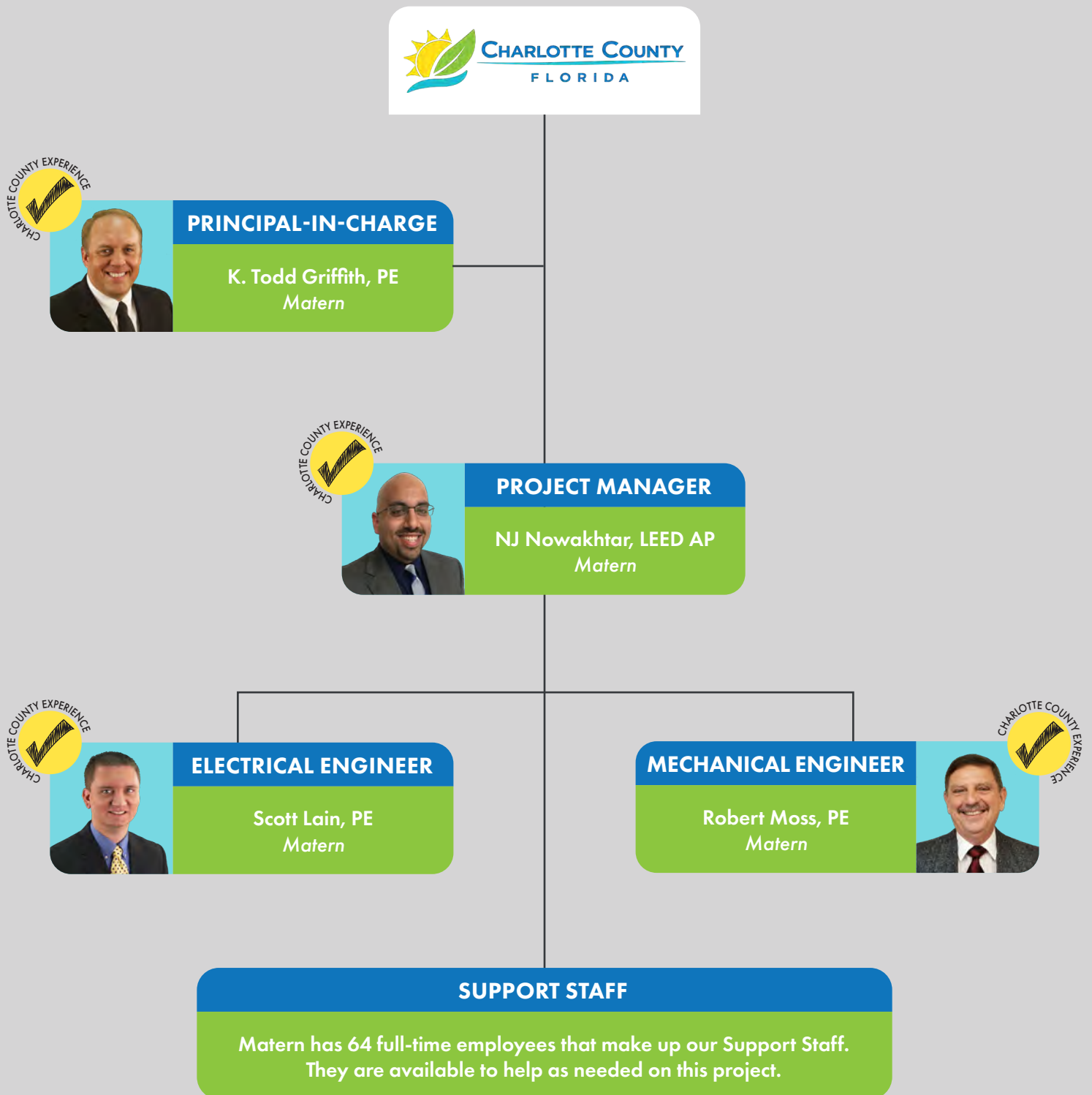
SECTION II

PROPOSED MANAGEMENT PLAN

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

TEAM ORGANIZATION



COMMUNICATION & TEAMWORK ARE THE KEY TO ANY SUCCESSFUL PROJECT!



TEAM ORGANIZATION

NJ Nowakhtar, LEED AP will serve as the Project Manager and primary point of contact for Charlotte County during all phases of the project, starting with initial evaluations of available documentation and consultations with county facilities personnel, through the building inspection and system evaluation, and finally during the proposal phase. Additionally, he will be available for further consultation as needed following the project completion as the County moves into implementation of the proposed system.

NJ will lead the project team, assign tasks to team members and require each of the team members to be fully accountable for their required tasks. He will be responsible for coordinating all communication efforts and delegating assignments to key personnel on the project. NJ will be assisted by Scott Lain, PE for electrical engineering and Robert Moss, PE for mechanical engineering. Todd Griffith, PE will serve as Principal-In-Charge providing quality control for this project.

This dedicated team will work hand-in-hand with your representatives and any other entity to successfully complete the project. You can count on this team to be there any time you are in need. Our team's schedule will remain flexible to meet with your staff as needed.



BUILDING INSPECTION PHASE

The nature of modern Building Automation Systems (BAS), in that they are designed to facilitate remote access, would serve to imply that extensive field investigation is not required in order to evaluate an existing architecture. However, it is important to note that modern graphical user interfaces serve only as a window to operational data and do not reflect the condition of an existing BAS, nor do they indicate the configuration of the system hardware.

We believe that a comprehensive field investigation of every building to be tied into the new controls architecture is vital to the success of this project. Prior to any field inspections, a thorough review all available construction documents and controls as-built documents will be completed to establish a baseline reference for the existing facilities. Consultations with Charlotte County facilities personnel whom interface with and use the BAS will also be conducted to gather first-hand accounts of the current status of the systems in the respective buildings and to document the observations and opinions of the current system operators as it pertains to the strengths and weaknesses of the existing BAS. These consultations will also serve as the foundation of the approach to the System Evaluation Phase as the needs of those whom will be operating the new global BAS must be taken into account when developing the final recommendation.

The project manager will allocate time for and assign team resources to inspections based on the data gathered during the aforementioned preliminary studies. Factors that will influence the allocation will be as follows:

- » Age of the building and age of the existing BAS in the building
- » Availability of reference documents and the age of the documents
- » Size and complexity of the existing mechanical systems
- » Mission critical nature of buildings and priority of individual sites as communicated by county personnel
- » Existing challenges communicated by Charlotte County personnel

As the level of uncertainty regarding an existing site increases, the time and resource allocation will proportionally increase to ensure that site conditions can be documented adequately. As the controls expert on the team, NJ will lead all inspections while prioritizing his field time to target the sites with the least reliable existing documentation. His extensive background in project development for major controls OEMs will be critical at this phase as the type, design, and configuration of the existing automation systems serving each site will be ascertained.

Inspections will be conducted on a building by building basis with an initial focus on establishing a comprehensive understanding of the architecture of the existing BAS. If it is anticipated that panel replacements, panel additions, new communication wiring, or an expansion of the site's IT infrastructure will be required to tie the system into the new countywide enterprise interface, follow up inspections will be scheduled as needed to evaluate the power infrastructure and availability of conduits in the respective areas. These secondary site visits will be assigned to Scott Lain and/or Robert Moss as needed. This approach will prevent unnecessary labor costs by preventing personnel from being assigned to site visits where their input will not be required.



SYSTEM EVALUATION AND PROPOSAL PHASE

SYSTEM EVALUATION

A fundamental truth of the building automation industry of today is that the same end result can be achieved through multiple divergent approaches. While there are underlying differences between the commercially available systems, many of those underlying differences do not constitute anything that is perceived by the end user. As such, any evaluation meant to determine the appropriate building automation solution for a given client must be rooted in the needs of the client and the day to day operators of the system, rather than strictly the technical details involved in delivering the solution.

To that end, the system evaluation phase will be managed directly by NJ to determine what the appropriate solution will be to meet the needs of Charlotte County. Based on the consultations with County personnel and the data gathered in the previous phase, he will conduct an analysis of all available building automation and integration platforms currently available and determine the solution which represents the ideal balance between achieving the operational targets set forth by Charlotte County and maintaining a reasonable level of feasibility from an implementation perspective. NJ will leverage his background from the control industry to consult with contacts at the factory and/or corporate level of the major BAS manufacturers. He will also consult with local representatives and contractors in the Charlotte County market.

Key criteria to be used in evaluating each potential solution will include:

- » The capability of the system to meet the needs of Charlotte County BAS operators
- » First cost for implementation and long term maintenance cost
- » Percentage of the existing BAS architecture which can be re-used as part of the new solution
- » Familiarity of County personnel with the type of interface and the operational parameters of the system
- » The amount of initial training required in the operation of the new system and the amount of periodic training required over time as the system is updated
- » The business model employed by the vendor for software and firmware updates and security patches and the compatibility of said model with Charlotte County's standards for allocating service costs

- » The IT security capabilities of the controls platform and the compatibility of its security protocols with Charlotte County IT standards
- » The robustness and stability of the local representative or representatives of the platform and their long term business outlook in the local market
- » The time required for installation and startup of the new system
- » The anticipated level of disruption to building operations during installation of the new system
- » The viability of starting up the new system while maintaining the existing system's operational and the smoothness with which a transition can be accomplished

PROPOSAL PHASE

The proposal phase will consist of two parts. First, we will issue a comprehensive written report outlining the findings and formal recommendation for the new enterprise level BAS. The report will include a primary recommendation, as well as secondary options deemed viable due to specific advantages which may be worth consideration. A possible outline of the solutions presented would be as follows.

- » Primary Recommendation – Best Overall Solution for Charlotte County
- » Secondary Recommendation – Option with Shortest Implementation Time
- » Secondary Recommendation – Option with Lowest First Cost

Once the County reviews the written report, a face to face meeting or virtual conference will be scheduled to answer any questions or provide clarification. The written report, as well as the outcome of the face to face consultation, could subsequently be used as the basis for developing design documents for implementation of the new system should Charlotte County desire to proceed as such.

SECTION III

PREVIOUS TEAM EXPERIENCE

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

PREVIOUS EXPERIENCE OF TEAM PROPOSED FOR THIS PROJECT

PRIME GOVERNMENT EXPERIENCE

Matern has been providing professional engineering services to government clients since its inception in 1984. Our firm's very first project was a street lighting design for the City of Orlando.

Since then, we have maintained a consistent record of designing projects for all types of government facilities with over 2,000 projects completed to date. We have helped design both renovation and new construction projects for the following types of government facilities:



**FIRE STATIONS, ADMIN BUILDINGS
& PUBLIC SAFETY FACILITIES**



**COURTHOUSES &
MUNICIPAL FACILITIES**



**JAILS, POLICE DEPARTMENTS, &
CORRECTION FACILITIES**



**HEALTH DEPARTMENTS
& CLINICS**



**EMERGENCY OPERATION CENTERS
& MAINTENANCE FACILITIES**



**COMMUNITY CENTERS,
PARKS & SPORTS FIELDS**

This wide range of experience enables us effectively assist with the evaluation and engineering of building systems in almost any kind of government owned building. Our experience also allows us to anticipate the needs of the people who use the facility and keep them as uninterrupted as possible when working on an occupied building.

Furthermore, as an extension of the facilities and maintenance staff, our clients have counted on us to provide quality work using our experience in complying with building codes and ordinances required to complete design and construction projects. We are prepared to perform the necessary "leg work" to determine the most cost effective solutions that keep your overall strategic plan in mind.

Our staff specializes in leading, designing and successfully completing projects. What started as leading a small single discipline project has led to leading multi-million dollar projects with a multiple discipline sub-consultant team.

We have had 36 years to vet through and streamline our coordination, quality control and cost control processes. Never stagnant, we continue to evolve as technology advances and we continue to adapt as government processes change. It is rare to find an engineer who has longevity in leading municipal projects. This has been our specialty from day one.

In the end, team communication, as well as close attention to safety, budget, timeliness and quality, are paramount to a successful relationship. Our approach is simple: Understand your needs, listen to your concerns, work within your budgets, and complete a successful project for the entire team. Our number one goal is to make your job easier.

PREVIOUS EXPERIENCE OF TEAM PROPOSED FOR THIS PROJECT

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EXPERIENCE WITH CHARLOTTE COUNTY

We have been working with Charlotte County Government since 2005, and have completed numerous projects throughout the last 15 years. The team we have presented in this qualifications package also has a great relationship with Charlotte County Government. We believe our team is the most qualified to design this project because of our relationship with the County, familiarity with your standards and our building automation system experience.

CHARLOTTE COUNTY PROJECTS (PARTIAL LIST)

- » Carmalita Park Concession Stand
- » Charlotte County Geothermal Pool Heating System
- » Charlotte County Jail Domestic Water Heater System Analysis
- » Charlotte County Jail Expansion
- » Charlotte County Jail HVAC Commissioning
- » Charlotte County Jail Infirmary Addition
- » Community Development Facility Expansion
- » Event Center Generator Addition
- » Fire EMS Station 2 HVAC Evaluation
- » Fire Station 10 New Sprinkler System
- » Fire Station 6 Renovations
- » Fire Stations Solar Water Heating
- » Fleet Building Renovations & Existing Building Evaluation
- » Harold Ave Park Concessions Rehabilitation
- » Harold Avenue Recreation Center Addition
- » Historical Center Rehabilitation
- » Human Services Building Fundamental Commissioning
- » Justice Center Expansion Commissioning
- » Justice Center Expansion Master Plan
- » Justice Center Generator Addition
- » Murdock Building Secure Parking
- » PCB Fishing Pier Lighting
- » Photovoltaic System FS12 & Charlotte Sports Park
- » Public Safety Building Generator Exhaust
- » Public Safety Complex
- » South County Annex Building Renovation
- » South County Recreation Center Renovations
- » South County Regional Park Concession Stands
- » Tringali Recreation Center Renovations



45

PROJECTS

Matern has completed 45
Charlotte County projects.

15

YEARS

Matern has partnered with
Charlotte County for 15 years.

75

PERCENT

Government projects comprise
75% of our overall business.

PREVIOUS EXPERIENCE OF TEAM PROPOSED FOR THIS PROJECT

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GOVERNMENT BUILDING AUTOMATION SYSTEM PROJECTS (PARTIAL LIST)

- » Charlotte County Community Development Facility Expansion
- » Charlotte County Justice Center Expansion
- » City of Bonita Springs City Hall AHUs
- » City of Fort Myers Fire Station No.17 (formerly No 7)
- » City of Groveland Public Safety Complex
- » City of Ocoee City Hall
- » City of Orlando Grand Ave Community Center
- » City of Orlando Rosemont Gymnasium Addition
- » City of Tavares City Hall, Planning & Zoning Area HVAC
- » City of Tavares Public Safety Complex
- » Collier County Building H HVAC Renovations 3rd Floor
- » Collier County CID Building HVAC Renovation
- » Collier County Growth Management Division Building HVAC Renovation
- » Collier County Heritage Bay Government Center
- » Deland Police Evidence Storage HVAC Assessment
- » Lee County Jail Core AHU Controls Remediation
- » Orlando International Airport North Terminal Central Plant
- » State of Florida DMS Trammell Building HVAC Renovation
- » Town of Fort Myers Beach Bayside Park Renovations



OTHER BUILDING AUTOMATION SYSTEM PROJECTS (PARTIAL LIST)

- » AdventHealth AHU Replacements at 5 Locations
- » AdventHealth Celebration 4th Floor Communications Room HVAC Improvements
- » AdventHealth Trickle Building HVAC Replacement
- » Bailey-Matthews Nationals Shell Museum
- » Barrier Island for the Arts aka Big Arts
- » Chico's CEP Renovation
- » Conservancy of SWFL Dalton Discovery Center Expansion
- » Diocese of Orlando St Anthony Hall Renovations
- » Edyth Bush Office Building
- » Florida Gulf Coast University Cohen Center Addition
- » FSW Lee Campus Building R Central Plant Renovation
- » FSW Lee Campus Building S 2nd Floor Renovation
- » Lee Health Corporate Building AHU Chiller Replacement
- » Lee Health Corporate Center 1st Floor
- » Lee Health GCMC MOB Building RTU Replacement
- » One South Orange Office Building Renovations
- » Orlando Health Physician Associates Cagan Crossings Tenant Improvements
- » Orlando Health South Seminole Storage Reconfiguration
- » Pelican Sound Clubhouse Renovations
- » Red Sox Stadium Jet Blue Park Player Lounge Hood Ventilation
- » RSW-Airport Traffic Control Tower & Tracon Commissioning
- » Seminole State College Building H Thermal Storage Expansion
- » Seminole State College Building V Chiller Addition
- » United Cerebral Palsy West Orange
- » Valencia College East Campus CEP Piping & Controls Modifications
- » Valencia West Campus SB Building Generator Redistribution
- » Virgin Trains USA Vehicle Maintenance Facility
- » WKMG Local 6 Tech Center Renovation
- » Woodruff Institute – Phase 1

A black and white photograph of an industrial facility, likely a power plant or refinery, featuring large pipes, valves, and machinery. The image is partially covered by a yellow overlay on the right side.

SECTION IV

PROJECT CONTROL

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

SCHEDULE

1. WHAT TECHNIQUES ARE PLANNED TO ASSURE SCHEDULE IS MET?

During the initial consultation phase with Charlotte County, we will establish a series of fixed due dates for all project deliverables. Intermediate dates for progress reports will also be established. These progress reports will consist of written communication or in-person meetings where we will provide status updates and confirm that schedule milestones are being met. Since this project does not require any design work in the traditional sense, classical milestones such as Design Development and 100% Construction Drawings cannot be relied upon. Key milestones will consist of date ranges within which a certain percentage of field investigation must be complete as well as milestones for delivery of the final proposal to Charlotte County.

2. WHO WILL BE RESPONSIBLE TO ASSURE THAT SCHEDULE WILL BE MET?

As project manager and primary point of contact, NJ Nowakhtar will take full responsibility to assure that the project is executed on schedule. He will maintain a continuous open line of communication with Charlotte County during each project phase. When access to Charlotte County facilities is required and or the active participation of Charlotte County employees is needed to facilitate any portion of the project, NJ will coordinate with the appropriate county team members no later than one week in advance of any such time commitment request.

COST

1. WHAT CONTROL TECHNIQUES ARE PLANNED?

The key to effective cost control is developing a comprehensive understanding of the project scope when setting the initial budget for the work to be performed. This project will consist primarily of field labor and office labor to conduct the building investigations and system evaluation respectively.

Based on our extensive background in building automation projects, knowledge of existing Charlotte County facilities, and information gleaned during consultation with County employees, we will develop a detailed estimate of the labor hours required to provide the desired final product. Hours will be assigned to each of the key project milestones. As each milestone is reached, the operational efficiency of the project to date will be evaluated and adjustments to the work plan will be made as needed to prevent cost overruns. If desired, we can incorporate a fixed, not-to-exceed, value into our initial cost estimate so as to eliminate the possibility of add service requests associated with the core scope of work.

2. DEMONSTRATE ABILITY TO MEET PROJECT COST CONTROL

As a firm that regularly serves as the prime consultant on government projects, we are familiar with what it takes to manage project costs. As it pertains to this project, all required cost controls will be internal. We are confident in our ability to execute the scope of work without any cost overruns within the indicated budget.

An example of a recent project for which cost control was a major factor is the Comprehensive BAS Upgrade of Lawton Chiles Middle School for Seminole County Public Schools. Matern was the prime consultant for this project. Following a comprehensive field review of the existing obsolete York ISN control system, we agreed upon a final cost for consulting and design services needed to facilitate a system replacement. By anticipating that a replacement scope often comes with certain field challenges due to the lack of available as-built documentation, we were able to plan for adjusting to the impact of project unknowns. Adjustments were made during design to incorporate the replacement of an existing refrigerant monitoring system and the installation of custom protocol translators to facilitate BAS communication with the legacy York chillers without any add service requests issued to the client. The necessary data to facilitate these design changes was acquired during our thorough field investigation, eliminating the need for additional site visits.

3. WHO WILL BE RESPONSIBLE FOR COST CONTROL?

The project manager, NJ Nowakhtar will have primary responsibility as it pertains to cost controls. Todd Griffith, in serving as the quality control leader for this project, will work with NJ at each phase to ensure that resource allocation is sufficient to ensure that all required project tasks can be completed within the agreed upon budget. As a team, we will communicate with Charlotte County during each phase of the project to ensure that billing is commensurate with the scheduling milestones agreed upon. The billing structure will be tailored to the preferred financial breakdown structure and timing schedule of Charlotte County.

RECENT, CURRENT AND PROJECTED WORKLOAD

PROJECT DESCRIPTION	PERCENT COMPLETE	ESTIMATED COMPLETION DATE
Valencia College East Campus CEP Piping & Controls Modification	78%	December 2020
Town of Fort Myers Beach Bayside Park Renovations	70%	November 2020
Charlotte County Jail Domestic Water Heating System Analysis	47%	August 2020
City of Fort Myers Fire Station No. 17 (formally No. 7)	44%	December 2020
Collier County Public Schools Immokalee Tech Center Standby Generator Addition	38%	August 2020
City of Orlando Tennis Center	18%	December 2021
Lake County Schools Aurella Cole Academy K-8	7%	August 2023
AdventHealth Kissimmee AHU Replacement	0%	March 2021
City of Marco Island Wastewater Membrane Bioreactor Wind Retrofit	0%	December 2021
Town of Fort Myers Beach Time Square Renovation	0%	December 2020
Florida Gulf Coast University Eagle Hall Power Distribution Modifications	0%	TBD
Charlotte County Harold Ave Recreation Center Generator Design	0%	December 2021

A black and white photograph of a modern interior space. In the foreground, two large, white, dome-shaped pendant lights hang from the ceiling. The background shows a bright window and a minimalist architectural design. A large blue vertical overlay covers the right half of the image, containing white text.

SECTION V

PROPOSED
APPROACH
FOR THIS
PROJECT

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

PRESENT PROPOSED APPROACH FOR THIS PROJECT

A. DESCRIBE PROPOSED CONSULTING PHILOSOPHY

The approach to executing the scope of work will be based on a combination of tasks designed to account for both the specific requirements set forth by Charlotte County and the requirements endemic to the installation of a new enterprise level building automation system across multiple sites and campuses. The work will proceed in three phases: Documentation Review & Consultation Phase, Site Inspection Phase, and System Evaluation & Proposal Phase.

DOCUMENT REVIEW & CONSULTATION PHASE

The first step in developing a new building automation solution will be to gain a comprehensive understanding of the existing solutions in place, as well as the mechanical and electrical systems they control. To do this, we will conduct a full review of all available documentation regarding the existing buildings to be integrated into the new system. This will include mechanical design drawings, electrical design drawings, construction as-built drawings, and controls as-built drawings. Based on this review, a preliminary picture of the existing infrastructure will be built. The project documentation structure will be developed based upon this review with information organized by campus and individual buildings.

Following the documentation review, a series of face to face, or virtual, interviews will be scheduled with County personnel. The purpose of these meetings will be to gather firsthand knowledge of the operational state of the existing buildings. It will also be critical to gain foreknowledge of any significant alterations, modifications, or renovations which have taken place in each building which may not be accounted for in the available documentation. As it is not uncommon for such work to be done outside the standard construction or design-bid-build structure, it is likely that the buildings and systems will not be as indicated in even the most up to date documents.

Finally, these interviews will allow us to determine what the major challenges are in regard to the operation of the current systems. This understanding will serve as the basis for all system evaluations and recommendations. Once this phase is complete, the project manager will develop a plan and schedule for the subsequent building inspection phase based on key criteria outlined below.

AGE OF THE BUILDING AND AGE OF THE EXISTING BAS

It is anticipated that the greatest amount of field investigation time will need to be allocated to the oldest buildings and the buildings in which the existing BAS infrastructure is the oldest. As modern automation systems have progressed technologically with the rise of the information age, the latest generations of hardware have been developed on the assumption that modern IT infrastructures are in place as nearly all manufacturers have embraced web based interfaces. Determining if the existing IT infrastructure can support a modern BAS will be critical. Furthermore, many older buildings employ pneumatic systems in lieu of electronic or direct digital control (DDC) based systems. Cataloging existing pneumatics, if they exist, is a timely procedure. Finally, for sites that are equipped with DDC systems, determining the generation, capabilities, and communication protocols employed by the existing systems will likely be more time consuming as data regarding legacy systems is not always readily available and some systems are no longer actively supported by their original manufacturer.

AVAILABILITY AND AGE OF REFERENCE DOCUMENTS

More time will be allocated to sites for which existing documents are not available as inspections of these sites will involve familiarization with the overall layout, configuration, and usage of the facility prior to proceeding to the inspection of systems.

SIZE AND COMPLEXITY OF THE EXISTING MECHANICAL SYSTEMS

Higher priority will be placed on sites based on the amount and complexity of the systems being controlled. For example, a site with a chilled water central cooling plant or hot water central heating plant will likely require more time for evaluation than a site employing packaged or split direct expansion (DX) equipment. As sites grow in size variation of usage, it is also expected that their lighting systems become more complex. To that end, determining if lighting control integration is possible will require more field time.

PRESENT PROPOSED APPROACH FOR THIS PROJECT

MISSION CRITICAL AND HIGH PRIORITY SITES

Any sites serving a mission critical purpose for county personnel or the citizens served by the county such as emergency operations centers or police stations will receive greater priority in time allocation. Most importantly, any sites identified by county personnel as requiring a greater amount of field investigation time will appropriately prioritized.

EXISTING CHALLENGES COMMUNICATED BY CHARLOTTE COUNTY PERSONNEL

Greater levels of field time will be assigned to sites which have existing operational problems or failings as indicated by the county. It is likely that such buildings may require some system remediation or repairs in order facilitate the introduction of a new BAS. Additional time spent in these buildings will serve to allow for documentation of any such deficiencies.

SITE INSPECTION PHASE

Under the direction of the project manager, NJ Nowakhtar, we will conduct a comprehensive site inspection of all buildings to be served by the new enterprise level BAS. NJ will be directly involved in the survey process and spend the majority of his site time at sites where his extensive controls and building automation background will be most useful.

The inspections will not be limited to building automation system components only. Mechanical and electrical systems which are controlled by the BAS will also be documented. It is critical that a complete understanding of each building's systems is gained to select the appropriate solution and tie all the buildings together under a unified interface. While one BAS solution may be well tailored to a specific system type or building type, it may have weaknesses which limit its ability to be effectively employed for a different system or building type.

The final recommendation must encompass the entire spectrum of the Charlotte County buildings, systems, and operators in order to effectively accomplish the goal of providing a single unified system. In each building, the following items will be documented.

- » Type of control system installed i.e. pneumatic, mechanical thermostats only, or DDC/BAS
- » Manufacturer, or manufacturers, of the installed BAS platform
- » Generation of controls hardware installed for each existing manufacturer's product
- » Specific models of each controller type and I/O expansion module installed
- » Communication protocol(s) employed by the existing BAS (i.e. BACnet IP, BACnet MS/TP, LonTalk, MODBUS, or manufacturer specific proprietary protocols)
- » Presence of any existing enterprise level systems, or interfaces (i.e. Tridium Niagara, FIN Stack, SCADA, or manufacturer specific server solutions such as a Johnson Controls ADX or Trane Tracer Ensemble)
- » Existence of any local dedicated PC workstations, touchscreens or alphanumeric interface panels facilitating BAS access
- » Use of any product or manufacturer specific control panels or protocol translators facilitating interaction between the BAS and any packaged piece of HVAC equipment such as a chiller or DX rooftop unit
- » All peripheral building systems controlled or monitored by the existing BAS including but not limited to lighting systems, emergency generators, kitchen equipment, life safety, and smoke control systems
- » Nature of the interface between existing BAS and the Charlotte County IT network, if such an interface exists (i.e. existing local area network (LAN) drops, protocol bridges, modems, coaxial cabling, fiber optic cabling and all other site to site or building to building infrastructure)
- » Type and condition of existing system level communication cabling and any existing communication failures or interruptions
- » Type of mechanical and electrical systems installed in each building and their existing control configuration
- » Any and all deviations of field conditions or systems versus what is indicated in the available mechanical, electrical and controls drawings

PRESENT PROPOSED APPROACH FOR THIS PROJECT

Upon completion of each site inspection, all gathered information will be cataloged and organized in accordance with the project documentation structure outlined above. We will document our findings through site specific field notes, redlines of deviations from existing drawings, photos of existing equipment, controllers, control panels, controls end devices, and other building infrastructure, and where possible, videos encompassing the overall layout of buildings and specific rooms or key areas as allowed by Charlotte County security procedures.

The intent of the site documentation concept will be to limit the need for any additional site inspections by ensuring that any need to reference what was reviewed on site can be met with data gathered. Follow up inspections will be limited to site specific and/or design discipline specific items requiring review by team personnel that were not present at the initial inspection. This may include a more in depth review of the site electrical or IT infrastructure by Scott Lain or a review of existing mechanical conditions by Bob Moss or Todd Griffith.

SYSTEM EVALUATION & PROPOSAL PHASE

The system evaluation will be conducted by NJ Nowakhtar, the PM and resident controls expert at Matern. It will commence in earnest once all site inspections are complete. However, the process of the evaluation itself will actually be ongoing during earlier phases of the project. At each step of data gathering and consultation, NJ will be building a model of Charlotte County's approach to operating and maintaining their buildings and supporting infrastructure. This will serve as the foundation of the system evaluation as an effective BAS solution must be specifically tailored to meet the needs of the end user. In reviewing the commercially available solutions and developing our recommendation, our primary target will be to find the product which best fits the day to day needs of those county employees whom will be interacting with and using the system. The major areas of consideration are as follows.

CAPABILITY OF THE SYSTEM TO MEET THE NEEDS OF CHARLOTTE COUNTY BAS OPERATORS

Far too often, building automation systems are gauged in a vacuum against one another based on the sum of their overall capabilities alone. As a result, many systems are installed in applications where their key strengths or advantages are not needed or worse, their key weaknesses are highlighted as a function of the operator's needs. The dynamic is akin to blindly recommending an exotic performance car for its ability to lap a famous racetrack in record time to a farmer who needs a vehicle capable of hauling heavy loads through a grass field. The exotic car may be capable of tremendous speed and cornering under the right conditions but those capacities will never be realized by the farmer.

To that end, the newly installed enterprise BAS must be able to satisfy the needs of its operators at Charlotte County. BAS users will have differing approaches to interacting with a system and will have differing philosophies with regard to what is expected of the system. Some may want a simplified graphical interface that allows for basic set point control and critical alarming only. Others may be more advanced users who want complete access to the underlying programming of each system. An operator primarily responsible for responding to hot or cold calls may want the system to display data using a graphical background from each floor of a building with values shown in each room so he or she can quickly see any areas diverging from set point. An energy manager may prefer blocks of data presented in graphical format or may want the BAS to auto-generate a daily report of only specific values as he or she has no interest in service calls or problem resolution.

Building automation is about people, not boxes on the wall. While it will not be the only factor we consider, the compatibility between what the system can do and what Charlotte County needs it to do will be paramount in the evaluation process.

PRESENT PROPOSED APPROACH FOR THIS PROJECT

FIRST COST FOR IMPLEMENTATION AND LONG TERM MAINTENANCE COST

We understand that while functionality and capability of any newly installed system are important, those factors cannot trump practical financial considerations. While evaluating potential solutions, the available budget set forth by Charlotte County will be kept in mind at all times. Moreover, the budget will be treated as a maximum amount covering all contingencies as opposed to a hard target to stay just under. Any and all opportunities to make a recommendation which can be implemented at significant cost savings will be explored.

RE-USING EXISTING BAS ARCHITECTURE AS PART OF THE NEW SOLUTION

In line with cost considerations, economies of scale associated with re-use of existing hardware and integration of existing systems into the new architecture will be explored. Based on experience gained during the design and construction administration of the Charlotte County Justice Center mechanical upgrade in 2018 along with other recent work executed for the county, we believe there is a strong possibility that portions of the existing BAS architecture in many county buildings can be left in place and integrated into the new global BAS.

OWNER FAMILIARITY WITH INTERFACE TYPE AND SYSTEM OPERATIONAL PARAMETERS

With any new system, there are bound to be growing pains for operators as they adjust to the quirks and features it has which they are not used to. As such, similarities between the user interfaces of the new system to what Charlotte County has been using will be considered. Moreover, the flexibility that any new system has in adapting its interface to the needs of the user will be considered so as to minimize the difficulties of users during and after the transition.

AMOUNT OF TRAINING REQUIRED FOR OPERATION OF THE NEW SYSTEM AND UPDATES

As a corollary to the previous consideration, the need for operator training will be considered. The methodology of administering training will also be evaluated to ensure that it is compatible with Charlotte County's operational needs. Some vendors believe in local training conducted by local field representatives while others favor flying county personnel to a central training center. The training concept must fall in line with what the County needs as it may not be possible for all those requiring training to gather in one location or for multiple service personnel to fly out of state for extended periods of time.

In light of recent world developments as it relates to COVID-19, the ability of the vendor to offer virtual training sessions will also be considered. Also, the willingness of the vendor to offer training specific to any updates released as the system matures over time will be taken into account. Operators may not desire to be re-trained from scratch and may prefer instruction only in what has changed.

BUSINESS MODEL FOR SOFTWARE & FIRMWARE UPDATES, SECURITY PATCHES AND COMPATIBILITY WITH OWNER'S STANDARDS FOR ALLOCATING SERVICE COSTS

BAS vendors have adopted varying approaches to the roll out and installation of software and firmware updates to their systems. In general, the industry is shifting toward a subscription based model for such updates. For example, a system may be at Version 4.0 upon installation. At some point in the future, the vendor will introduce version 4.1 or 5.0. They may also issue patches or updates to a specific version (i.e. 4.1.1). Access to these updates is tied to a periodic subscription charge or service agreement which entitles to owner to any and all updates during the subscription window.

This shift is driven by the greater frequency with which these types of updates are having to be introduced. With interfaces being web based, vendors often find themselves having to issue emergency patches to account for changes made as major web browsers such as Apple Safari, Google Chrome, or Microsoft Edge are updated. This structure may not be compatible with how Charlotte County chooses to engage in allocating service costs, however. As such, it may be necessary to consider vendors which still employ a fixed cost model for individual updates or use a free update model in which the marginal cost of all anticipated updates during the life of the system is built into the initial purchase price.

PRESENT PROPOSED APPROACH FOR THIS PROJECT

CONTROLS PLATFORM SECURITY CAPABILITIES AND COMPATIBILITY WITH OWNER'S STANDARDS

Any proposed solution must be capable of being integrated into the IT infrastructure of the county and complying with all IT security standards. Matern will consult with county IT personnel and ensure that any system proposed is capable of compliance with all such standards.

STABILITY OF LOCAL PLATFORM REPRESENTATIVES AND LONG TERM LOCAL MARKET OUTLOOK

Local support must be available if a BAS solution is to be viable long term option for Charlotte County. While a system may be well suited to their needs and technologically robust, if the local manufacturer representative does not have a strong base of service technicians and support personnel to handle the scale of the counties building footprint, the solution is a non-starter. Furthermore, the same is true if the nearest factory representative office is not close enough to provide emergency support when needed.

TIME REQUIRED FOR INSTALLATION AND STARTUP OF THE NEW SYSTEM

The timeliness with which the new system can be installed and brought online will be taken into account. Special considerations will be made given the current global supply chain challenges brought on by the Covid-19 pandemic. Many vendors are experiencing component shortages or factory shutdowns which is pushing lead times for materials beyond industry norms and in some cases into indefinite uncertainty. Matern will leverage relationships within the industry to ensure that the recommended manufacturer is not suffering any such challenges and can guarantee product availability if selected. Technologies which speed up or simplify installation, such as wireless communication platforms like ZigBee or EnOcean, will also be considered.

ANTICIPATED BUILDING DISRUPTION DURING INSTALLATION OF THE NEW SYSTEM

Disruptions to building operations represent loss of time, productivity, and goodwill among employees. Optimizing a solution such that it can be installed and started up with minimal disruption of day to day operations will be a target for our team. The aforementioned efforts to reuse existing infrastructure where feasible will also serve this purpose.

TRANSITION TO A NEW SYSTEM WHILE MAINTAINING THE EXISTING SYSTEM'S OPERATION

Nothing is more disconcerting and frustrating for a system operator than complete loss of visibility. How does one solve a problem if one cannot see what is wrong? While the nature of the work being performed means that temporary loss of system visibility is inevitable, solutions can be tailored to minimizing those temporary periods. In evaluating the installation requirements of any system, the possibility of installing key components in parallel with existing hardware will be reviewed with the aim of having the new system up and ready to run and executing a flip of a switch style transition.

PRESENT PROPOSED APPROACH FOR THIS PROJECT

B. WHAT PROBLEMS DO YOU ANTICIPATE AND HOW DO YOU PROPOSE TO SOLVE THEM?

In evaluating legacy or obsolete systems, the most likely problem we will encounter will be the lack of available technical support from the original manufacturer. There are still thousands of control panels installed all over the world which were manufactured by companies that technically no longer exist, such as Siebe or Barber Coleman. Many of these panels were produced and branded as part of partnerships which have long expired leaving the branding company with limited or no support for a product.

The most prominent example of this is the York ISN generation of controllers. Following the acquisition of York by Johnson Controls, this line of hardware was dropped and new components for the systems are no longer produced. Even if a vendor still technically supports a product line, there may no longer be any employees remaining with firsthand knowledge of the product. If such a dynamic were to be present, we would lean on the background and expertise of our project manager, NJ Nowakhtar.

Thanks to his time as a controls project developer for a major OEM, NJ has had firsthand experience with nearly every commercially available controls platform, including many which passed into obsolescence long ago. He has amassed a vast library of technical documentation and practical field experience as it relates to these systems which gives him a special perspective regarding what can and cannot be reasonably done with a legacy system.

Another challenge we could face is the compatibility of hardware. As described above in the Proposed Consulting Philosophy, it is anticipated that the goal of installing a unified BAS can be accomplished while keeping portions of the existing hardware in place, guaranteeing that the existing hardware will seamlessly integrate with the new global interface can be difficult. The key to overcoming this challenge is conducting a review of the underlying design of the controllers in question and their respective controls platforms as opposed to relying on a generic assumptions regarding compatibility.

It is often assumed that any LonTalk or BACnet based controller can interface cleanly with any other controller using the same communication protocol. In practice, this is hardly ever the case. There is no such thing as a plug and play integration. While many manufacturers utilize the LonTalk platform, there are numerous profiles which LonTalk controllers employ within the LonMark architecture as defined by Echelon Corporation. An analysis of the profile carried by each controller is critical in ensuring compatibility.

Additionally, some manufacturers have chosen to develop their own custom profiles which do not inherently mesh with the standard LonTalk structure. Controllers carrying such custom profiles must be identified and cataloged. A similar dynamic exists with BACnet based hardware. Evaluation of compatibility for any BACnet controller must include a review of the devices Protocol Implementation Conformance (PIC) Statement. This statement indicates the BACnet Interoperability Building Blocks (BIBBs) which the manufacturer has chosen to include in the firmware of the panel.

We will review all such documentation to ensure that the proposed final BAS platform is capable of interfacing with any controllers recommended to remain as part of the new architecture.

C. DESCRIBE PROBABLE BAS APPLICATIONS

While the final recommended approach will be based on the executed work plan, it is likely that the proposed solution will involve the adoption of a new enterprise type building automation platform. Enterprise level building automation systems comprise a subset of the commercially available controls platforms specifically designed to tie multiple buildings and multiple site specific or system specific systems together through a unified interface for operators. Examples of these systems include Tridium Niagara (manufactured by Honeywell and employed by numerous controls vendors such as Distech or Wykon), Tracer Ensemble (manufactured by Trane), and EcoStuxure (manufactured by Schneider Electric).

Additionally, a newly emerging category of products that allow for direct integration between traditional building automation platforms and the Internet of Things (IOT) may be considered. The most notable option in this regard is the FIN Framework, manufactured by J2 Innovations and Siemens, which is based on the open platform known as Project Haystack.

PRESENT PROPOSED APPROACH FOR THIS PROJECT

D. DESCRIBE INNOVATIVE APPROACHES TO PRODUCTION & DESIGN

As it pertains to controls and building automation design, the standard model for consulting engineering firms has always been to utilize the expertise of local controls vendors to supplement their internal design teams. While the mechanical designer assigned to a particular project is technically responsible for the controls design, it is often an account manager or project developer from a trusted vendor that is the key player in generating the final building automation concept for a job.

In 2018, we chose to break with convention and create a dedicated controls and energy engineering department within our firm. To lead this team, we hired NJ Nowakhtar, the assigned project manager for this project and primary point of contact for Charlotte County. Having an expert in controls and building automation with over a decade of experience in the industry as part of the design team for every project sets us apart from nearly every other MEP firm in the industry today.

With controls being a highly specialized discipline, both owners and the engineering firms they hire to represent them often find themselves at a disadvantage in terms of technical expertise when selecting, working with, or negotiating with BAS vendors. We will work hand in hand with Charlotte County, so this will never be the case because an industry insider will be working directly for the County with their best interests in mind at all times.

The background image shows an industrial facility, likely a power plant or manufacturing plant. On the left, there are several large, grey electrical control panels with various switches, dials, and digital displays. These panels are mounted on a metal frame. To the right of the panels, there are large, horizontal pipes wrapped in silver insulation. The floor is made of concrete, and the ceiling has exposed steel beams and various pipes. A green vertical bar is overlaid on the right side of the image, containing the text.

SECTION VI

SIMILAR
PROJECT
EXAMPLES

MATERN
ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

BUILDING AUTOMATION SYSTEM OVERVIEW

A new building automation system can provide many benefits to Charlotte County, including improved occupant comfort, higher efficiency of building systems, reduction in operating and maintenance costs, and improved life cycle of utilities. Matern has been helping our clients design building automation solutions for over 35 years. Today, we even have an in-house Controls & Energy Engineer to assist in designing these solutions for all of our project types, including government, healthcare, education, commercial, and aviation. Below is a partial list of the recent building automation projects we have designed.

BUILDING AUTOMATION SYSTEM PROJECTS (PARTIAL LIST)

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PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

CHARLOTTE COUNTY JUSTICE CENTER EXPANSION & CONTROLS RETROFIT

The existing Charlotte County Justice Center, originally completed in 1999, currently consists of a five-story building interconnected with a three-story building. This project includes remodeling the existing buildings, enhancing security & technology features, additional parking, and renovation of a storage facility to house the Clerk of Court records.

The renovations are being completed in phases to lessen the impact of construction and keep the facilities operational. Phase 1 completed the storage facility and the control room at the Justice Center. Phase 2 is currently underway which involves renovation to the Justice Center complex. Phase 3 is a new generator for the facility, which has been designed and the slab has been poured. The new generator will be connected in August.

The project included an evaluation of the legacy BAS in the building and development of a specification that facilitated the integration of an existing LonTalk based controls hardware with new BACnet based systems. This allowed the work to be done in an efficient and cost effective manner while allowing the County to avoid any expenditure for the installation of new, but obsolete, hardware since the older LonTalk systems were no longer being installed in County facilities.



COLLIER COUNTY GROWTH MANAGEMENT DIVISION HVAC RENOVATIONS

Matern provided engineering design services for a HVAC replacement of the 60,000-square foot Growth Management Division Building. The project included expansion of the existing central energy plant to provide chilled water cooling compactly for the building, new roof mounted chilled water variable air volume air handling units, new VAV boxes with electric heat zoned based on solar exposure and building function, and electrical power distribution design for the new HVAC system components.

The project also included a transition of the building's BAS from a legacy Johnson Controls system to a new Reliable Controls system as part of a global transition between BAS interfaces underway at Collier County. It included consultations with the installing controls contractors and ongoing interaction after initial installation to ensure that the integration of any remaining Johnson Controls components into the Reliable interface was executed smoothly and that overall building operational requirements were met.



PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

SEMINOLE COUNTY PUBLIC SCHOOLS BAS REPLACEMENTS

Matern was hired by Seminole County Public Schools to facilitate the replacement of the obsolete HVAC building automation systems at three of their schools, Chiles Middle School, Keeth Elementary School and Winter Springs High School, with new open protocol based systems. The elimination of these obsolete York controls systems will tie the schools into the district's enterprise system.

Scope of work for these projects included site visits; floorplan drawings indicating existing equipment locations and new control panel locations; controls diagrams and sequences of operation; and specifications for all required hardware and software.

Cost control was a major factor in these BAS upgrade projects. Following a comprehensive field review of the existing obsolete York ISN control system, we agreed upon a final cost for consulting and design services needed to facilitate a system replacement. By anticipating that a replacement scope often comes with certain field challenges due to the lack of available as-built documentation, we were able to plan for adjusting to the impact of project unknowns. Adjustments were made during design to incorporate the replacement of an existing refrigerant monitoring system and the installation of custom protocol translators to facilitate BAS communication with the legacy York chillers without any add service requests issued to the client. The necessary data to facilitate these design changes was acquired during our thorough field investigation, eliminating the need for additional site visits.

CANOE CREEK ACADEMY K-8 RENOVATION

Matern provided engineering design services for the renovation of Canoe Creek Academy, a K-8 school in Osceola County. The project included replacement of the existing BAS controls system and a low voltage design for a new network IT equipment, servers VOIP system, intercom system in all IDF and MDF rooms. It also included various electrical reconnections and new power throughout the school, a chemical water treatment system for the existing chilled water system, and emergency lighting.

This was a controls retrofit of an existing campus, but it also served as the project where we helped the School District of Osceola County launch their new controls standards. The new FinStack enterprise server transitioned them from a legacy LonTalk system to a new BACnet standard with IOT integration capability.

CITY OF FORT MYERS FIRE STATION NO. 17

Matern provided mechanical, electrical, plumbing, fire protection engineering design services for the new City of Fort Myers fire station. The 12,000-square foot fire station will have bay areas, living space, office space, conference room, bathroom and kitchen facilities. The will also be a storage building/garage. The undeveloped site will have vehicular access with parking spaces for the public and employees and appropriate landscaping and stormwater management.

The BAS portion of this project included design and coordination for the integration of a custom 100% outside air unit into the facility BAS to give building operators the ability to monitor the operation of the packaged OAU.

PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

29



SANIBEL ISLAND BIG ARTS

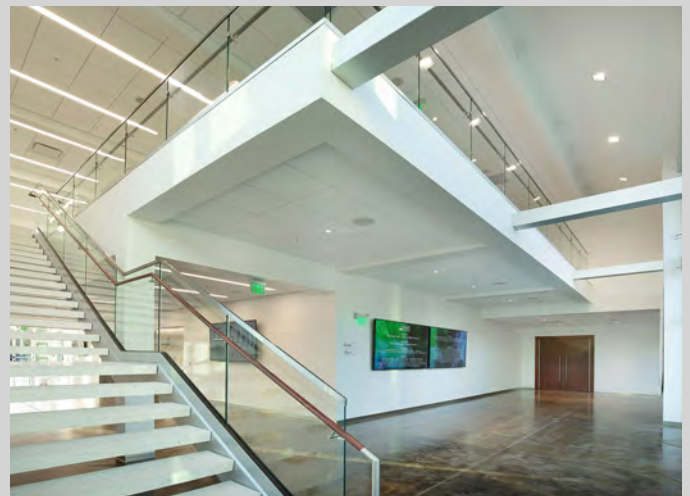
Matern provided mechanical, electrical, plumbing and fire protection engineering design services for the new 27,000 SF performing arts center.

BIG ARTS, the Sanibel Island performing arts center, features a 414-seat theater, spacious lobby, green room, box office, gift shop, piano storage, catering kitchen, two dressing rooms with showers and an expanded art gallery.

An education center is situated on the second floor to host lectures as well as painting, drawing, photography, music, dance and pottery workshops and classes. The second floor also includes an administrative department with conference rooms and offices. The conference rooms have video conferencing capabilities enabling BIG ARTS to stream in lecturers or conference participants.

BIG ARTS was constructed with energy efficient elements such as a metal roof to reflect heat, chilled water heating and cooling system to provide energy efficient climate control, spray foam insulation to provide a thermal barrier from the exterior to interior and LED lighting.

We incorporated a heat recovery system for reheat energy and designed an underfloor displacement ventilation system for the performing arts theater, which resulted in a more efficient and ultra quiet system.



PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

CITY OF BONITA SPRINGS CITY HALL HVAC REPLACEMENT

Matern was hired by the City of Bonita Springs to provide engineering design services for the HVAC renovation at City Hall. The project included a complete redesign of the existing HVAC system with a one for one replacement of two 100% outdoor air handling units. The DX air handlers will have interconnecting supply/return ductwork with VAV boxes zoned for solar exposure and space function.

The project also included a new building automation system, new lighting throughout the building and lighting control with occupancy sensors and daylight harvesting. The new BAS included a specialized sequence of operation to allow for changeover between two redundant AHUs to ensure the facility would always have cooling and heating even if one system failed completely. The existing main electrical service and backup generator will remain. Construction is being completed while the building remains occupied, and is scheduled to be completed by the end of the year.



CHARLOTTE COUNTY COMMUNITY DEVELOPMENT FACILITY EXPANSION

Matern provided mechanical, electrical and plumbing engineering design services for expansion of the Charlotte County Community Development building. The project consisted of the renovation and a 5,500-square foot expansion, as well as replacement of the existing roof. The building remained open and accessible to the public and staff during construction. The expansion included management offices, conference rooms, general offices, a storage room, flexible space for inspectors and examiners to review plans and prints. The facility utilized an integrated building automation system.



PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

FIRM REFERENCES

COLLIER COUNTY GOVERNMENT

John McCormick, Principal Project Manager

239.252.8380 / john.mccormick@colliercountyfl.gov

Project: Collier County Growth Management Division CEP Renovations & BAS Upgrades

SEMINOLE COUNTY PUBLIC SCHOOLS

Joan Van Sickle, Project Manager

407.320.0191 / vansijz@scps.k12.fl.us

Project: BAS Replacements at Chiles Middle School, Keeth Elementary School & Winter Springs High School

SCHOOL DISTRICT OF OSCEOLA COUNTY

Johnathan Romberg, MEP Facilitator

407.518.2964 / Jonathan.Romberg@osceolaschools.net

Project: School District of Osceola County Canoe Creek K-8 Controls Retrofit

CHARLOTTE COUNTY GOVERNMENT

Jenny Buccieri, Project Manager

941.623.1002 / jenny.buccieri@charlottecountyfl.gov

Project: Charlotte County Justice Center Renovations

PROJECT MANAGER REFERENCES

ADVENTHEALTH ORLANDO

Ben Fitzgerald, Director of Energy Management & Control Systems

407.303.1144 / Benjamin.fitzgerald@adventhealth.com

SEMINOLE COUNTY PUBLIC SCHOOLS


Arman Pourmirza, Resource Conservation & Performance Manager

407.320.7483 / pourmiaz@scps.k12.fl.us

TRANE

Rodney Armstead, Controls Sales Leader

407.595.5458 / rodney.armstead@trane.com



SECTION VII

PROJECT SPECIFIC EXPERIENCE & CAPABILITIES

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

DESCRIBE YOUR EXPERIENCE & CAPABILITIES IN THE FOLLOWING AREAS

A. VALUE ENGINEERING

We understand that harmony will not always exist between the ideal solution and the available budget. Moreover, we understand that having a sufficient budget to execute the ideal solution does not mean that opportunities for savings and efficiency gains do not exist. Our team has extensive experience in the realm of value engineering in that delivering high value is a core principle of the Matern approach to engineering in general. Rather than developing a solution, then looking to revise the concept to save cost after the fact, our team strives to optimize the overall value during the initial development so as to prevent the need for the step altogether. The initial consultations with Charlotte County will be critical for this approach as having a fundamental understanding of the project budget and targets will drive our efforts in that direction.

As it pertains to building automation systems, value engineering efforts tend to revolve around matching the capabilities of the hardware and software installed with the actual intended application and the desired operational life of the overall system or building. For example, a vendor may offer an automation server or supervisory controller capable of pulling data from up to 2000 equipment level controllers simultaneously. This ability may be tied to licensing costs or may be built into the initial cost of the system. If it is anticipated that the total controller count of the entire enterprise will never approach 2000, then it would stand to reason to specify a solution which allows for individual licensing of controllers such that it can be scaled for what the client needs rather than a solution for which the end user pays for the full 2000 controller capability even though it is not needed. Taking items like this into account during the initial evaluation of Charlotte County's existing infrastructure will serve to prevent the need for retroactive revisions to the recommendation to meet budgetary requirements.

B. LIFE CYCLE COST ANALYSIS

First cost cannot be the only factor considered when evaluating a building automation solution. The overall expenditure involved in implementing a solution must be considered and that includes the costs incurred in operating, servicing, and updating a system. As modern controls hardware is generally designed to have the same or greater operational life as the systems being controlled, it is often assumed that controls systems do not have much, if any, long term operational costs.

As a result of our extensive background in control retrofit projects, as well as retro-commissioning efforts, we have found that assumption to be incorrect. The nature of modern BAS solutions as web based software platforms has resulted in a dynamic within the industry developing whereby the updates needed to the software and firmware of the systems have been monetized. Since PCs, tablets, smartphones, and various other forms of technology are used to interface with a BAS, the evolution of the software running on those devices means that the software governing the BAS must constantly evolve as well. It is not uncommon for the BAS to require an update each time Microsoft issues an update to Windows 10 or Apple issues an update to their Safari browser.

Our history with building automation design coupled with the firsthand knowledge of NJ Nowakhtar, which he gained during his decade long career as a controls industry insider, will be at the disposal of Charlotte County to ensure that the proposed solution is optimized for both first cost and lifetime operational cost. Should the County chose to keep Matern on the team during the design and implementation phase of the new system, this council will also be available to aid in negotiation with vendors and management of the final installation.

C. CRITAL PATH METHOD

We are well versed in the Critical Path Method approach to project management. Our experience executing large scale projects in the government, healthcare, and hospitality means we are no stranger to the use of work breakdown structures and their accompanying task based schedules to keep all the moving parts of a project in order. While this project does not contain a traditional design phase, should Charlotte County choose to move into design and implementation of the recommended system, a critical path approach could be applied to that endeavor.

DESCRIBE YOUR EXPERIENCE & CAPABILITIES IN THE FOLLOWING AREAS

D. ENERGY CONSERVATION

As the system which governs the operation of mechanical and electrical equipment, the building automation system is the linchpin of any energy conservation effort. We have experience with many energy conservation measures and design strategies, and we are well versed in the process of leveraging building automation to achieve the desired results. Below are examples of strategies we have employed:

- » Load shifting and thermal energy storage
- » Schedule and occupancy based load shedding
- » Occupied standby operation
- » Demand control ventilation (CO₂ based and people counter based)
- » Optimal start and optimal stop
- » Variable volume static pressure optimization
- » Chilled water system critical valve reset
- » Pressure independent control valve applications
- » Cooling tower outside air dew point based optimization
- » Device and sensor failure cascading redundancy sequences
- » Dynamic data based alarming of operational deficiencies (i.e. anticipating failures before they happen)
- » Seasonal set point and lead/lag optimization (i.e. summer mode vs winter mode)
- » Epidemic mode ventilation optimization

E. NEW BAS RESOURCES

Matern is constantly keeping an eye on the building automation industry and staying up to date on the latest developments and product releases. We constantly interface with industry representatives and attend market specific conferences and data exchanges hosted by industry specific organizations (i.e. ASHRAE, AHCA, and FEFPA) to stay on top of the latest trends and innovations. Furthermore, having NJ Nowakhtar, a former controls industry insider, on our team means that his longstanding relationships with major OEMs can be levered to get support from the factory and corporate level of major controls vendors in addition to local support.

NJ is a member of several standing focus groups maintained by major controls manufacturers and is often called upon to provide input and feedback regarding conceptual design for upcoming products and newly developed services. Therefore we are often aware of newly available BAS resources and products before they hit the open market.

DESCRIBE YOUR EXPERIENCE & CAPABILITIES IN THE FOLLOWING AREAS

F. SPECIALIZED EXPERIENCE

Our Controls & Energy Engineering team is led by NJ Nowakhtar, the assigned project manager for this project. Prior to joining Matern, NJ spent 13 years working for two of the major OEMs in the building automation industry. During this time, he held positions as a Senior Controls Project Engineer, Controls Estimator, and Controls Project Developer. This background gives NJ a unique insight into the world of controls and building automation in that he has been personally involved in every aspect of both the industry at large and the field operations associated with installing and maintaining a modern building automation system. His time as a project developer also gives him special perspective into analyzing, upgrading, and retrofitting legacy systems including the pneumatic and electro-pneumatic systems of the past.

During his career, NJ has been personally involved in executing every step involved in BAS installation including:

- » Initial conceptual design
- » Field evaluation of existing buildings and systems
- » Coordination with mechanical and electrical designers and equipment vendors
- » Cost estimation and life cycle cost analysis
- » Energy analysis
- » BAS architecture design
- » System installation
- » Controller programming and control loop tuning
- » Integration of third party equipment and devices
- » Final commissioning and project close-out

As the project manager and primary point of contact, NJ will utilize his specialized background to ensure that the optimum solution is selected for Charlotte County.

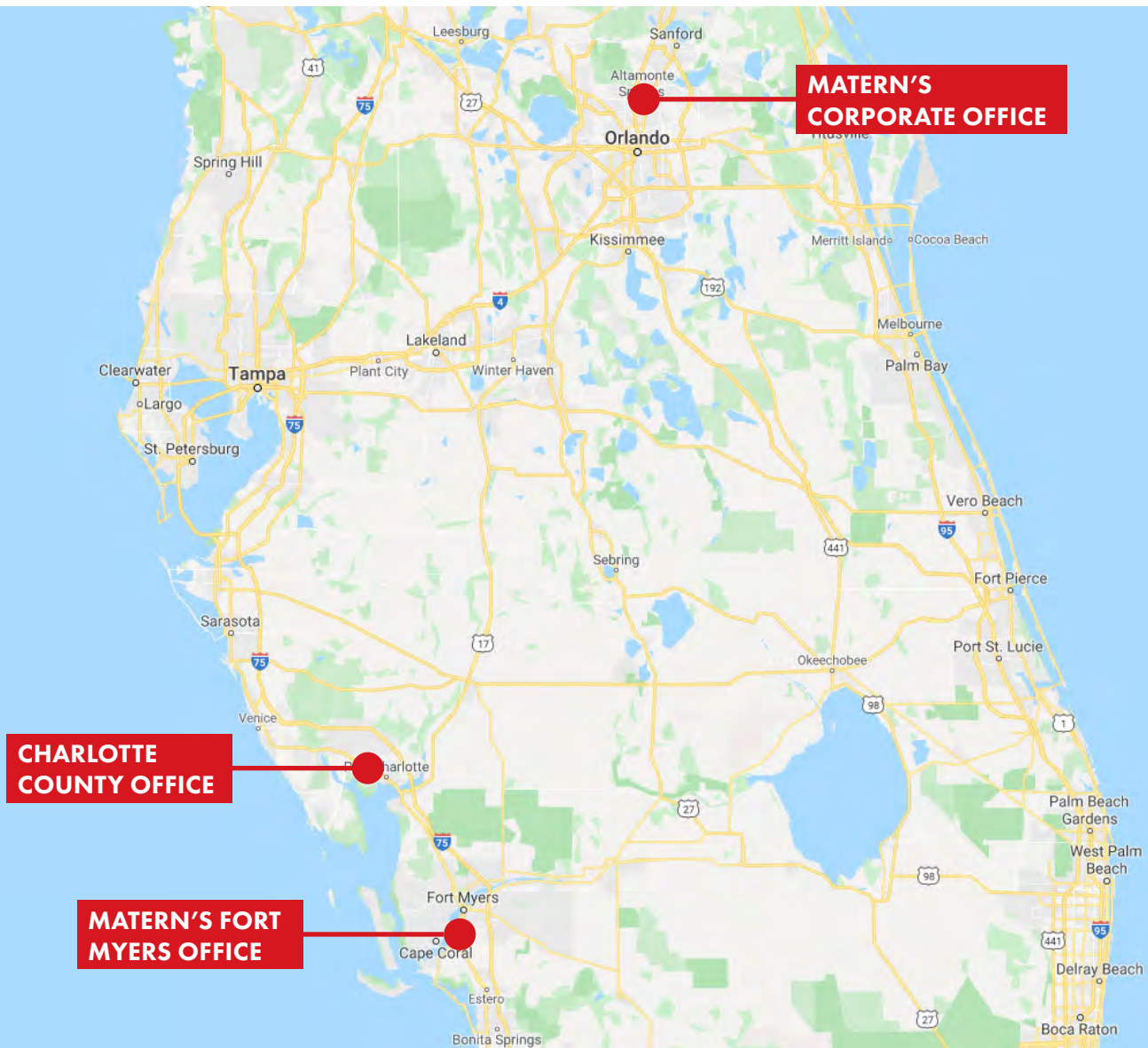


SECTION VIII

LOCATION

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU



FORT MYERS OFFICE

7680 Cambridge Manor Place, Suite 101
Fort Myers, Florida 33907

CORPORATE OFFICE

130 Candace Drive
Maitland, FL 32751

Our offices and equipment are designed in a manner that allows our employees to provide efficient and productive professional engineering and construction administration services. Our conference rooms have audio/video teleconferencing, presentation screens, and TV's for presentations, educational classes, video conferencing, and more. This technology also allows us to connect our offices together for staff meetings, project coordination, or any other need that might arise. It also allows us to connect with our clients virtually or in-person.

We recently implemented the use of Microsoft Teams company-wide for internal office communication via chat, audio and video calls. We use this platform for project coordination, file sharing and more. In addition, we are able to hold virtual meetings between offices and with our remote staff and/or clients allowing us to video conference and screen share. This feature has been efficient over the last few months while many of our staff and clients have been working remotely, and we believe it will be a useful to continue utilizing in the future.

EMERSON
Network Power

ASCO
TYPE SERIES
Power Transfer & Bypass Switch

SECTION IX LITIGATION

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

CAMPBELL PLUMBING CONTRACTORS SOUTHEAST

Project: St. Johns County School District Nease High School & Baptist Hospital BIM Coordination

Claim Number: Case No. 2018-CA-000811-15-W (Seminole County)

Date of Claim: December 17, 2018

Status: Open

Allegations: Matern sued Campbell for non-payment and Campbell counter-sued for Breach of Contract



SECTION X

MINORITY
BUSINESS

MATERN
ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

While Matern is not a minority or women owned business, we are strong advocates of diversity internally and have strong relationships with minority and women owned businesses, as well as local developing businesses.

We were awarded the Small Business Advocate of the Year Award by the Greater Orlando Aviation Authority in 2013. We consider our partnerships valuable and strive to find ways to help these members of the A/E/C industry succeed.

SBA QUALIFIED SMALL BUSINESS

We are classified as a Small Business by U.S. Small Business Administration standards: Professional, Scientific and Technical Services (Sector 54); Engineering, Surveying and Mapping Services – \$15 million in average annual receipts

QUICK REFERENCE CODES

- » D-U-N-S No.: 15-290-4637
- » Cage Code: OSCD3
- » NAICS Codes: 541310, 541330, 541690
- » Professional Engineer License No.: 5096

PRIMARY SERVICES

- » Mechanical Engineering
- » Electrical Engineering
- » Plumbing Engineering
- » Fire Protection Engineering
- » Technology / Systems Engineering
- » Energy Related Engineering
- » Commissioning

OUR SMALL BUSINESS SUPPORT PLAN

At Matern, government assignments comprise 75% of our overall business. We feel fortunate to be able to work so many exceptional clients. We support and understand the M/WBE, SDVOBE, DBE and LDB programs implemented by our government clients and work hard to support these programs.

Under our established mentoring program, we have had such firms work with us as subconsultants on prime projects, designing complete projects under our continuing service contracts, as well as working directly with us in our offices to complete projects. We consider these partnerships valuable and strive to find ways to help these members of the A/E/C design industry succeed.

We are proud to have been the 2013 recipient of the Greater Orlando Aviation Authority Advocate of the Year award for our unwavering dedication and support of its Small Business Development program. We continue to embrace this program on every project we are assigned.





SECTION XI

REQUIRED FORMS

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU

PART IV - SUBMITTAL FORMS PROPOSAL SUBMITTAL SIGNATURE FORM

1.	Project Team Name and Title	Years experience	City of office individual will work out of for this project	City individual's office is normally located	City of individual's residence
	K. Todd Griffith, PE - Principal In Charge	26	Fort Myers	Fort Myers	Fort Myers
	Nojan "NJ" Nowakhtar, LEED AP - Project Manager	15	Maitland	Maitland	Orlando
	Scott Lain, PE - Electrical Engineer	15	Fort Myers	Fort Myers	Fort Myers
	Robert Moss, PE - Mechanical Engineer	29	Fort Myers	Fort Myers	Cape Coral
2.	Magnitude of Company Operations				
	A) Total professional services fees received within last 24 months:			\$ 21,563,066	
	B) Number of similar projects started within last 24 months:			7	
	C) Largest single project to date:			\$ 9,500,000 (fee)	
3.	Magnitude of Charlotte County Projects				
	A) Number of current or scheduled County Projects			2	
	B) Payments received from the County over the past 24 months (based upon executed contracts with the County).			\$ 6,000.00	
4.	Sub-Consultant(s) (if applicable)	Location	% of Work to be Provided	Services to be Provided	
5.	Disclosure of interest or involvement: List below all private sector clients with whom you have an active pending contract and who have an interest within the areas affected by this project. Also, include any properties or interests held by your firm, or officers of your firm, within the areas affected by this project.				
	Firm	Address			
	Phone #	Contact Name			
	Start Date	Ending Date			
	Project Name/Description				

NAME OF FIRM Matern Professional Engineering

(This form must be completed and returned)

6. Minority Business:

Yes ☐ No ☒

The County will consider the firm's status as an MBE or a certified MBE, and also the status of any sub-contractors or sub-consultants proposed to be utilized by the firm, within the evaluation process.

Comments or Additional Information:

The undersigned attests to his/her authority to submit this proposal and to bind the firm herein named to perform as per contract, if the firm is awarded the Contract by the County. The undersigned further certifies that he/she has read the Request for Proposal, Terms and Conditions, Insurance Requirements and any other documentation relating to this request and this proposal is submitted with full knowledge and understanding of the requirements and time constraints noted herein.

By signing this form, the proposer hereby declares that this proposal is made without collusion with any other person or entity submitting a proposal pursuant to this RFP.

In accordance with section 287.135, Florida Statutes, the undersigned certifies that the company is not on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and does not have business operations in Cuba or Syria (if applicable) or the Scrutinized Companies that Boycott Israel List, or is not participating in a boycott of Israel.

As Addenda are considered binding as if contained in the original specifications, it is critical that the Consultant acknowledge receipt of same. The submittal may be considered void if receipt of an addendum is not acknowledged.

Addendum No. _____ Dated _____ Addendum No. _____ Dated _____ Addendum No. _____ Dated _____

Addendum No. _____ Dated _____ Addendum No. _____ Dated _____ Addendum No. _____ Dated _____

Type of Organization (please check one):

INDIVIDUAL
CORPORATION

PARTNERSHIP
JOINT VENTURE

Matern Professional Engineering

Firm Name

407-740-5020

Telephone

407-740-0365

Fax

59-2888618

Federal Employer Identification Number (FEIN)

Fictitious or d/b/a Name

130 Candace Drive

Home Office Address

Maitland, FL 32751

City, State, Zip

36

Number of Years in Business

7680 Cambridge Manor Place, Suite 101, Fort Myers, FL 33907

Address: Office Servicing Charlotte County, other than above

NJ Nowakhtar, LEED AP / Project Manager

Name/Title of your Charlotte County Rep.

239-332-1187

Telephone

239-332-5195

Fax

K. Todd Griffith, PE / Sr. Vice President

Name/Title of Individual Binding Firm (Please Print)

8/20/2020

Date

Signature of Individual Binding Firm

tgriffith@matern.net / sgentry@matern.net

Email Address

(This form must be completed & returned)

DRUG FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that Matern Professional Engineering does:
(name of business)

Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program, if such is available in the employee's community, by any employee who is so convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Proposer's Signature

8/20/2020

Date

END OF PART IV

(This form must be completed & returned)

MATERN

ENGINEERING BUILDING SYSTEMS THAT WORK FOR YOU



7680 CAMBRIDGE MANOR PLACE,
SUITE 101, FORT MYERS, FL 33907



239.332.1187



WWW.MATERN.NET

