FOREFRONT
ARCHITECTURE + ENGINEERING

+

Request for Statement of Qualifications

RSQ - 21-0914 SUPERVISOR OF ELECTIONS BUILDING DESIGN

Documents Prepared for

Lake County / FL

LAKE
COUNTY, FL
REAL FLORIDA · REAL CLOSE

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SECTION 3
Proposed Solution

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SECTION 3:
Proposed Solution

APPROACH TO PROJECT

Project Understanding/General Scope

Forefront has read through each phase of the scope of work and understand the precise guidelines for each area. **With security being of the utmost importance, we also understand the needs of the other areas as well.** All of the requirements listed have been thoroughly reviewed and acknowledged. Forefront has a multi-faceted background and experience that we feel allows us to expertly approach this project with **Archis, Inc. leading the way with IT and Security Features.** Working and living in Lake County gives us an insight to the daily life that occurs here and makes us want to provide the best design possible that we ourselves will use in the future. We are proud to call Lake County home and look forward to working on this project and seeing our community benefit from this partnership.

A/E Services Project Approach

Our design team begins each of our projects with a **Consensus Building Design Process to ensure we understand and address the vision of our clients, while seeking input from the user groups and stakeholders.** It is imperative to understand how each project operates and functions. We will design a facility that allows your team to be as efficient as possible.

Effective management of a multi-disciplinary project team requires effective, upfront planning and scheduling. **Priorities and assignments will be set by our Principal-In-Charge, Todd Drennan, in coordination with the City's Project Manager. Located in our Clermont Office, Todd will also develop a detailed work plan that identifies assigned resources for each task, and preliminary schedules will be created in appropriate software.** He will oversee design compliance, submissions, costs, drawing production, publishing schedule, and constructability

analysis. While direct lines of communication are critical between all partners, he will serve as the day-to-day contact for design information, which will be routed to the rest of the team.

Kickoff Meeting

We will begin with a kick-off meeting to discuss Lake County's goals and objectives. This meeting will involve a core group of decision makers, including representatives of your facilities team, IT staff, and any other departments deemed necessary who will remain engaged throughout the entire process. At this partnering session, design and construction processes will be formed, along with a collaborative team to ensure a comprehensive project delivery with constant involvement in all phases by Lake County's design criteria representatives and end users. Forefront's approach to managing the communication among team members focuses first on establishing regularly scheduled meetings with key stakeholders. Project meetings will occur bi-weekly and each will have a specific agenda with clear and focused goals and objectives. The Forefront team recommends face-to-face workshops for primary meetings, with teleconferences to supplement further communication among the team. **Prior to all meetings, both physical and virtual, Todd will issue an agenda to ensure all members are well prepared and productive.**

PLAN

- Kickoff Meeting
- Confirm Project Scope
- Design Schedule
- Design Goals and Parameters
- Establish Construction Budget
- Risk Assessment
- Identify Proposed Project Delivery Method
- Site Data Collection
- Sustainable Design Approach

CONCEPT

- Collaborative Programming Design Goals
- Equipment requirements
- Conceptual Building and Site Plans
- Team Review of Design Concepts and Final
- Opinion on Probable Cost Estimate

DEVELOP

- Develop SIte/ Building
- Develop Sections and Details
- Establish Finishes and Structural Approach
- Develop Construction Documents
- Develop Site
- QC Reviews 30%/60%/90%
- Owner & Budget Reviews
- Final QC & Owner Review

ASSIST

- Coordinate with Permit Authorities
- Bid Assistance
- S&S Plans for Permit
- Construction Progress Inspections
- Contractor RFI's
- Shop Drawing Review
- Final Inspection
- Record Drawings
- Warranty Inspection

Programming / Needs Assessment

The programming / needs assessment stage is critical to ensure a successful design for this upcoming project. During this stage, we plan to tour other facilities with key stakeholders. This will provide our team with a better understanding of our project goals and the specific functions your building will need to support throughout its lifetime. **In addition, it is important for our team to determine future expansion needs, current square footage, and other requirements.** Once we have obtained initial information from the determined stakeholders, and reading the requirements listed in this RFQ of the facility, we will evaluate population growth of Lake County's sections that will be served in order to help calculate square footage requirements. We will then develop a proposed Space Needs Analysis to determine the gross building square footage, the average square footage per person, and projections for the next 5, 10, and 20 year requirements. **The Space Needs Analysis will also provide an itemized list of the required spaces in the facility that meet Lake County's standards and needs.**

Forefront has been involved in the development of more than 50 master plans for clients all over the United States. Our subconsultant, **TFE Consultants,** will also play a large planning role in this stage of the project providing mechanical, electrical, and engineering services. Their local experience and knowledge will be invaluable in assisting Lake County in determining the best outcome for the site. **We will also study the potential site options and evaluate each for cost efficiency, effective operations, and their ability to service the County's residents.** Proximity to available utilities, impacts on existing systems, and avoidance of conflicts with existing infrastructure will also be evaluated. **We will begin with a master plan to develop secure and unsecure zones for public and private use. Facility entry, along with Crime Prevention Through Environmental Design solutions around the building, will bring the necessary site security together with the Space Needs Assessment square footages to develop the actual building area.**

Facility, Site, and Building Security

An act of terrorism directed toward a public facility can be multi-faced, including chemical, biological, or dynamic such as the use of explosions or traditionally benign "carriers" in unique applications (airplanes, vehicles, etc.). **One of the major criteria for the creation of a facility security system is an integrated system that creates an envelope or perimeter supported by layers of systems. Singular systems can be overcome much easier than multi-faced and interconnected systems.** It is critical to maintain a zone of "controlled approach" relative to vehicles or transported elements that can pose a threat. Video monitoring of the site at its perimeter, security fencing, and intrusion alarm systems are just a few ways to provide levels of security. All buildings that accommodate critical functions should utilize blast containment systems to defect the dynamic forces of an explosion. Typically all government buildings have limited points of access, generally a singular public entry and a separate point of staff access into the facility. Entry must be controlled with a variety of systems including CCTV monitoring, electronic locking devices at doors, and voice communication (push-to-call) capability. These systems are generally "discrete" in they are non-obtrusive, while providing the necessary security functions. Similarly, all items brought into the building by a visitor can be screened with state-of-the-art technology readily available.

Information Technology

The design for the location will consider if it can support network drops. It will also determine the location suitable to meet the requirements as outlined by the county (i.e., Data/Phone room to be an outside wall with private separate entrance). State or federal guidelines for server room will be reviewed. **All safety and security concerns for security breaches and act of God will be evaluated and assessed during the design phase. The design of the server and safe room, ceiling layout will follow the requirements outlined by the County.**

Once a design is finalized, materials and labor needed for the network will be determined. A plan of installation from the MDF room patch panel to walk jack will also be developed.

During install, cable run will be grouped by 4 per drop location from patch panel to the wall jack. All cables will be labeled on both ends to ensure the correct group is punched down chronologically on a patch panel for the specific section. Steps followed will include:

- Terminate 4 cat6 drops from the patch panel for the selected area, terminate drop to wall jacks
- Test, trace and label the network drops document information

This request requires configuration of one or more wireless access points with a controller to manage the wireless access point and wireless network (SSID'S). Steps to set up these networks include:

- Create SSID (SOE)
- Create SSID (Guest/Public)
- Create Vlan e.g. SOE with subnet (192.168.15.xx/24)
- Create Vlan e.g. Guest with Subnet (192.168.18.xx/24)
- Assign each SSID to the respective Vlan for network operations
- Provision Wireless security for SOE SSID

Security encryption with PSK WPA2/WPA3
- Apply ACL rule blocking Guest Vlan from accessing other devices, Vlans e.g. SOE

There are many software and tools used to design and install wireless networks and video management and access control systems. Some of the software that will be used on this project include iBwave, CADD, Axis Design Tool, etc.


Safe Room

Safe rooms are used to provide a safe shelter for the inhabitants and critical materials in the event of a natural disaster, fire, terror attack, or other threat. Ideally, these rooms will withstand all natural elements such as wind, rain, and fire, so the people and items inside the room remain safe and secure. Safe rooms are a critical part of business continuity and disaster recovery planning especially when some data may not be backed up and stored in virtual solutions or "the cloud."

Design Phase

Upon Notice to Proceed, we will conduct a partnering session to develop design and construction processes and form a collaborative team to ensure a comprehensive project delivery with constant involvement in all phases by the County's design criteria representatives and end users. **At this initial conference, our team and the County will establish a schedule for programming meetings corresponding to design package milestones.** Our collaborative design approach utilizes design charrettes at the beginning of the project to ensure we fully understand the primary goals and objectives of the design documents provided to us. **Additionally, we will validate the "wants" verses the "needs" to confirm the budgetary constraints will be met.** Our team will provide timely cost information to ensure the project team makes informed decisions as to design direction and the design direction remains consistent with the project budget. **Through this process, we will also develop, maintain and update the project master schedule, which will include all design, permitting, procurement activities, construction activities, punch list, and closeout activities, along with the County's move-in and transitional requirements.**
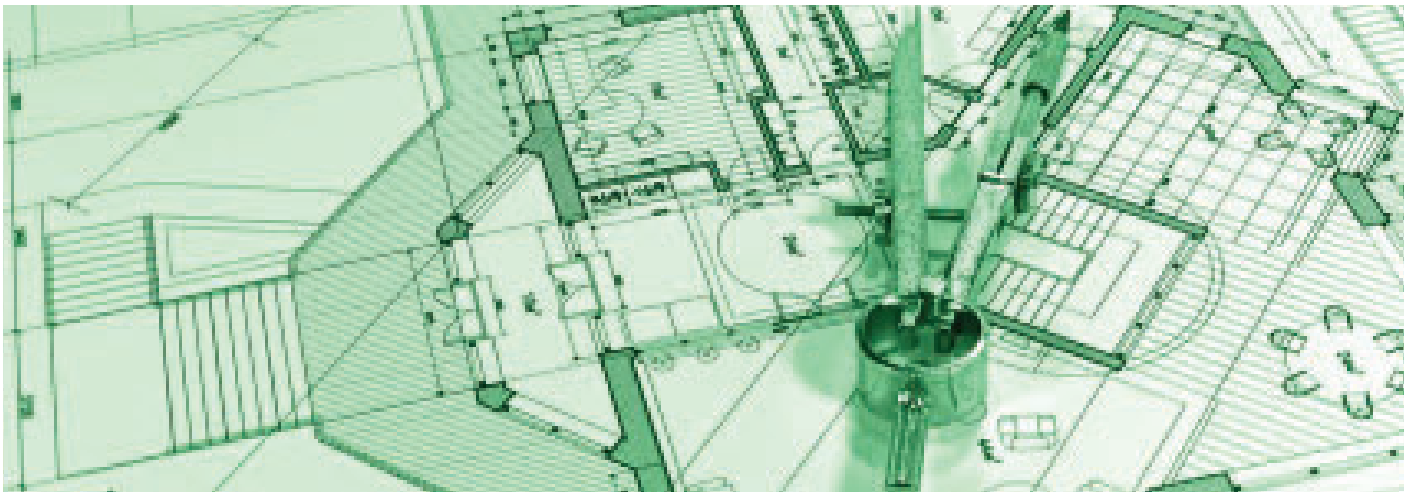
Construction Administration and Post CA

During the construction administration phase, Todd Drennan, our Principal-in-Charge, will stay involved throughout the process to ensure the County's vision remains and help establish a continuity from design into construction. A Construction Administrator and Todd will also utilize the rest of the team, and additional resources as needed, to complete the project. **Our local staff can be on site within minutes on an as needed basis to address any issues and verify the project is moving forward.** Responsibilities include: RFI and submittal reviews, construction progress meetings, project site visits on weekly basis, review payment applications, reducing change orders, and monitor closeout activities to provide a smooth transition from construction to occupancy. This management activity encompasses closeout tasks, such as delivering warranties and operating manuals to the owner, and housekeeping activities such as archiving project files. **This activity includes investigations to determine the quality of the services that were provided and efforts to obtain opinions from the owner, and possibly the contractor, about those services.**
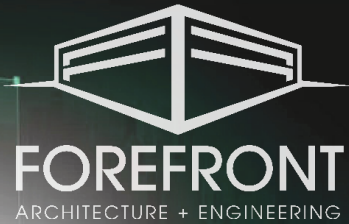
RESOURCES

BIM

Building Information Modeling (BIM) is a powerful tool and we utilize all of its capabilities. From conflict analysis through 3D imaging, scheduling and estimating, the building information model is at the center of our coordination efforts and provides pivotal input for all our decisions. We have developed a stable and clear BIM project environment integrating all disciplines involved in the construction and design. Using the Revit suite of products, we build the architectural, structural and MEP models.

BIM 360

Our project management staff utilizes **Autodesk BIM360** software to immediately respond to questions, issues, changes and daily events. Project team members have instant and easy access to the latest, most accurate project information including drawings, answered RFIs, and approved changes. Placing all data into one, Autodesk BIM360 creates a central and secure database. The database enables the project team to group, analyze and compare project performance. This process facilitates team interaction and collaborative decision making. Our MEP coordination team has gained huge benefits through their ability to visualize and problem-solve the maze of piping, ductwork and electrical lines prior to construction. It's evident that their proficiency has given us a major advantage for confirmed cost savings and efficiency. **Autodesk BIM360 provides the entire team with accountability, change management, job cost control, and report management to ensure that our projects achieve successful completion on both time and budget.**

BLUE BEAM

Forefront utilizes Bluebeam on all of our projects for document control and management. **Bluebeam is a best in class technology to electronically manage and share drawing.** Bluebeam also offers capabilities to share other project related documents such as photos and schedules to facilitate collaborative review. A Collaborative Electronic Document Management tool is used to communicate the project record drawings in real time to the project team. This is also used to verify project document revisions.
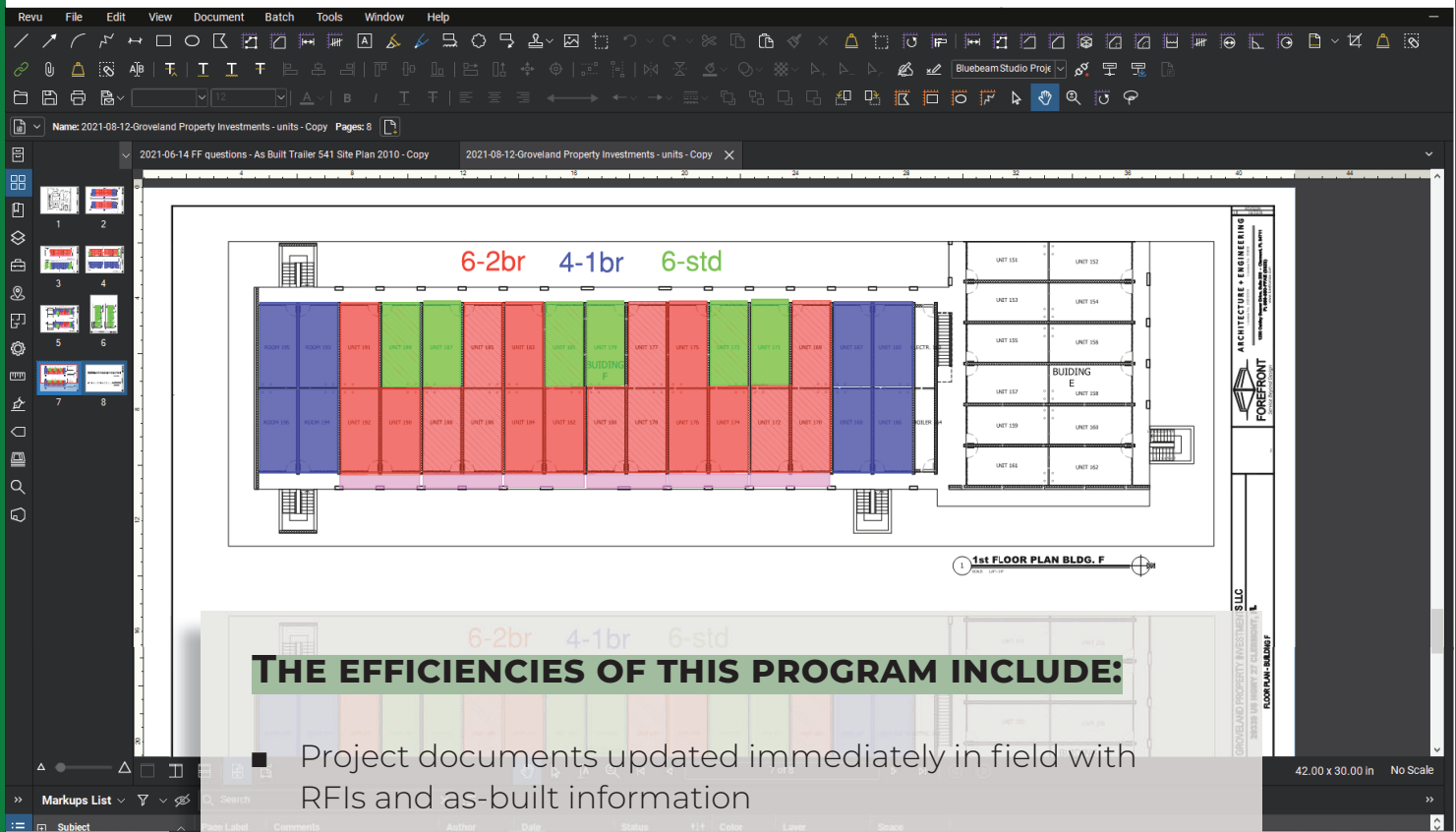
THE EFFICIENCIES OF THIS PROGRAM INCLUDE:

■ Project documents updated immediately in field with RFIs and as-built information

■ Free access for entire team to the latest posted current set of drawings

■ Detail icons linked from floorplans to detail plans making for easy navigation

■ In-wall pictures directly from iPad onto drawings

■ Full project document turnover to client electronically