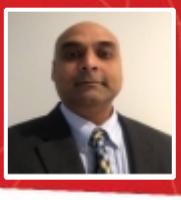
Akash Bissoon, PE
RADISE International, L.C.
Senior Project Engineer



Mr. Bissoon has 14 years of geotechnical engineering experience including providing project management for a wide range of work involving geotechnical, environmental and civil engineering. He is skilled in the preparation of specifications for foundations, roadway work, storm water management systems and water distribution systems.

He is knowledgeable in current FDOT, ASTM and AASHTO standards applicable to design and materials testing, and is skilled at conducting materials investigations through the construction completion-certification stage. He works on projects from the initial modeling- specification stage, through the planning, designing and drafting stages.

Mr. Bissoon has served as a Senior Geotechnical Engineer on projects for clients including the Florida Department of Transportation (FDOT), Broward County Aviation Department, South Florida Water Management District (SFWMD) and the US Army Corps of Engineers (USACE).

PROFESSIONAL REGISTRATION AND CERTIFICATIONS

- Registered Professional Engineer, Florida #74582
- CTQP Quality Control Manager, Florida Department of Transportation
- Qualified Storm Water Management Inspector, Florida Department of Environmental Protection, #16155, May 2007
- Advanced Temporary Traffic Control (TTC), #41524, Florida Department of Transportation, June 2018
- CTQP Final Estimates Level 1 & Level 2, Florida Department of Transportation, October 2018
- IMSA Traffic Signal Inspector, #124859, December 2018

EDUCATION

- B.S., Civil Engineering Florida Atlantic University, Boca Raton, FL

CAPABILITIES

- Project Management
- Water Distribution Systems
- Engineering
- Roadway Soil Survey
- Stormwater Management
- Systems
- Construction Materials
- Testing
- AutoCAD, ArcGIS, AERMOD View, EPAnet, MathCAD,
- Cascade, gINT, Microstation, FB Deep
- Environmental and
- Geotechnical Modeling
- Estimating
- Client Liaison

REPRESENTATIVE EXPERIENCE

Materials Testing Continuing Services Contract, FDOT D4, Districtwide, FL. Project Engineer - As Prime Consultant for this ongoing contract, the work includes providing districtwide materials field and lab testing services.

Miscellaneous Geotechnical & Materials Testing and Inspection Services, Florida's Turnpike Enterprise, FL. Project Engineer - For this ongoing contract, providing geotechnical engineering, materials testing and inspection services.

I-95 at Linton Blvd – Roadway Soil Survey, Pavement Coring and Evaluation Report, Structures Report, Palm Beach County, FL. Senior Geotechnical Engineer -- Oversight including field exploration/testing and laboratory testing. Construction of improvements at the I-95 and Linton Blvd interchange.

SFRTA The Wave Modern Streetcar Design – Geotechnical Engineering Services Report, Broward County, FL. Senior Geotechnical Engineer -- Oversight including field exploration/testing and laboratory testing. Construction of a light rail system. Site preparation, foundation, catenary pole, pavement and seasonal high groundwater recommendations.

S-842 (Broward Boulevard) - Structure Investigation for Bridge Replacement, Broward County, FL. Senior Geotechnical Engineer -- Oversight including field exploration/testing and laboratory testing. Construction of two replacement bridges, resurfacing, restoration and rehabilitation, and the replacement of the substandard barrier wall.

SR-817 (University Drive) from Nova Drive to I-595 Ramp, Broward County, FL. Senior Geotechnical Engineer -- Provided roadway soil survey and structures investigation, testing for drainage features and mast arm design.

Broward County Mast Arms, Broward Co., FL. Senior Geotechnical Engineer -- Field exploration/testing and laboratory testing for 20 planned intersections for mast arm traffic signal conversions and pavement improvements. Provided laboratory testing, asphalt core services and pavement evaluation.

I-75 Express Lanes – Segment E, Broward County, FL. Senior Geotechnical Engineer -- Provided geotechnical engineering services for the improvements along the I-75 (SR9) corridor. The length of the project was about 12 miles from the Miami-Dade County/Broward County line to North of I-595 Interchange in Broward County.

SR-9/I-95 PD&E, south of High Meadows Road to North of Becker Road, Martin and St. Lucie Counties, FL. Senior Geotechnical Engineer -- Project included approximately 13 miles of roadway soil survey and testing for drainage features.

I-95 Additional Auxiliary Lanes from S. of Glades Road to N. of Yamato Road, Palm Beach County, FL. Senior Geotechnical Engineer - Project consists of approximately 6 miles addition of 2 auxiliary lanes, 2 new interchanges, 25 bridge expansions and new bridges.

I-95/SR-9 PD&E Study, North of Becker Road to south of SR-70, St. Lucie County, FL. Senior Geotechnical Engineer -- Project included approximately 13½ miles of roadway soil survey and testing for drainage features.

SR 848 (Stirling Road) Safety Improvements, Broward County, FL. Senior Geotechnical Engineer --project consisted of installing two mast arm sign structures at the opposite corners of SR 848 and N 68th Avenue Intersection in the Town of Davie.

LAKDAS NANAYAKKARA P.E. #37590

EDUCATION:

Post Graduate Diploma in Structural Engineering
England, United Kingdom

Bachelor of Science Honors Degree in Civil Engineering
With Structural Engineer Major
University of Hartford
England, United Kingdom

Higher National Certificate in Civil Engineering
Hertfordshire College of Building
England, United Kingdom

NATIONAL & STATE AWARDS:

- *Tamarac City Complex: National Award: Structural Engineer of Record*
- *Aventura City Complex: State Award: Structural Engineer of Record*
- *Tamarac Pedestrian Bridge: State Award: Structural Engineer of Record*
- *2011 National Tilt-Up Achievement Award – Tilt-Up Concrete Association*

PATENT LICENSE TO INDUSTRY:

- *11 Patents: U.S., U.K., Australia, China and Bahamas*
- *Metal stud frame system # US 6980 347 B2*
- *Interlocking masonry wall # US 6550 208 B2*
- *Light gauge metal frame # US 6163 674 B1*

PROFESSIONAL ENGINEER REGISTRATIONS:

Engineering
- Charted Structural Engineering
  London, England – 1981
- Florida #037590
- South Dakota – 4058
- Minnesota - #17947

Construction
- Florida Certified General Contractor – CGC 044303

Inspection
- Certified Structural Masonry Inspector – 1992
- Certified Threshold Inspector – 1987
- Certified Uniform Building Code Inspector - 690

- Structural Engineering Expert for Unsafe Structure Board – City of Margate since "2001".

- Structural expert witness services over 400 residential projects for Insurance companies, over 58 projects failure analysis and Expert testimony for litigation representation.

EMPLOYMENT:

1988 to present Lakdas / Yohalem Engineering, Inc
Fort Lauderdale, FL 33308
Principal - in charge of structural design and final review of construction documents, study, evaluation reports and contract negotiation.

1986-87 Yohalem Engineering, Inc.
Fort Lauderdale, FL 33308
Principal Associate - structural design, project management,
Structural Investigation Reports liaise with Architects and clients contract negotiation.

1983-86 Darg Palanasami and Associates, Inc.
Minneapolis, MN
Project Engineer - Structural design, site supervision, structural investigations and reports, liaise with Architects and General Contractors.

1978-83 Structural Design Partnership
St. Albans, England
Project Engineer - Structural design, site supervision, structural investigations and reports, liaise with Architects, General Contractors and clients.

EXPERIENCE:

Thirty-six years of practicing as a Professional Structural Engineer in the following disciplines: building structures, marine and bridge engineering structures for many state, county and city agencies in support of high visible and miscellaneous public projects.

Over 1500 projects were completed in South Florida and the Caribbean Basin during the last 31 years.

Building Projects:

- 8 new stand-alone multi-story parking garages
- Over 10 multi-stories residential buildings with parking garages
- Over 5 multi-stories commercial buildings with parking garages
- 11 cruise terminal facilities
- Renovation and expansion of 61 existing elementary, middle and high schools.
- 6 high schools, 8 middle schools and 14 elementary schools (New)
- 11 community college building facilities, 6 special education facilities
- 18 multi-story hotels and resort projects
- Structural renovations of 11 parking garages, 21 condominiums
- 8 new libraries, 8 auditorium and amphitheater
- 14 new fire stations, 7 police and public safety buildings
- 6 new city complexes with two award winning structures

Water and Wastewater Treatment and Solid Waste Treatment Plants:

- 12 water and wastewater treatment plants expansion projects
- 6 solid waste treatment plant renovation and expansion projects
- 14 water and wastewater treatment plant renovation projects

Marinas, Seawalls and Port Facilities:

- 9 Marinas (Over 100 Slips)
- 64 Residential, multi-residential, docks and seawalls
- 8 Toewalls, bulkhead and pier projects at port facilities

Highway and Pedestrian Bridges:

- 18 new highway bridges ❖ 11 pedestrian bridges ❖ 14 passenger loading bridges
- 16 high-way bridge expansion projects

Park Facilities:

- 18 park and amusement park facilities

Mast Arm Structures:

- 400 Mast Arm Structures

Value Engineering and Constructability Review

Participated as structural expert for over 31 value-engineering sessions for both FDOT and County's major projects in building, bridges and water and wastewater treatment plants. Our Value-Engineering service has saved:

- Bridge projects over $4.5 million
- Building projects, saved over $4.1 million
- Water & Wastewater Treatment Plants, saved over $6.6 million
- Worked for local city agencies as special structural review for over 40 projects

Structural Failure Analysis and Expert Witness: Construction Related Litigation

- 12 Commercial projects ❖ 46 Residential projects

Professional Societies:

Institute of Structural Engineers, London, England
American Society of Civil Engineers, American Concrete Institute
Florida Institute of Consulting Engineers, The Masonry Society

Civic Organizations:

Member of Broward County Construction Executive Association and Member of Florida Consulting Engineers

Paul F. Hillers, P.E., President
Hillers Electrical Engineering, Inc.

Education

Master of Science in Electrical Engineering, 1981
Louisiana State University
Bachelor of Science in Electrical Engineering, 1979
Cum Laude
Louisiana State University

Professional Registration

Registered Electrical Engineer, Florida No. 41022

Experience

39 years of electrical, instrumentation & control system design and construction management.

Hillers Electrical Engineering, Inc., 1994 to present

Design and construction services experience includes high, medium and low voltage electrical distribution systems; process instrumentation and control systems; complete supervisory control and data acquisition (SCADA) systems; PLC/computer programming; fire alarm, security and security camera systems; time & attendance systems; normal and standby generation systems.

Areas of practice include: water and wastewater treatment facilities; master lift stations; water reuse facilities; storm water pumping stations; operational and maintenance complexes; water control structures; aquifer storage and recovery (ASR) wells; solid waste facilities.

Transportation experience includes lighting and power distribution design for Florida Department of Transportation major roadways, interchanges and toll plaza systems, including illumination and voltage drop calculations, pole locations, power supply and distribution, 100% plans and project review process, coordination with utilities departments, writing specifications and completing estimates and tabulation quantities for state, county, and municipal agencies in the state of Florida.

Skills include: specification creation; value engineering; energy analysis; testing; cost estimates; start-up; onsite inspections.

Project Manager, Co-generation System, NRWWTP, Broward County Water and Wastewater Services

Performed electrical, instrumentation and control system engineering and design to integrate a single 1999 kW internal combustion gas engine-generators operating on digester gas into the plant power distribution and SCADA system. Generator output is 4.16kV, three-phase, 60 hertz and is integrated with plant main power distribution system. Project also included the design of a new fats, oils and grease (FOG) facility.

Project Manager, WTP 9 Emergency Generator Replacement, Palm Beach County, FL

Provided electrical design and construction inspection services for replacement emergency generator that meets current EPA requirements (Tier 4 Final rating). Project includes designing new Tier 4 Final generator, new After-treatment system, Urea system, exhaust silencers, as well as temporary generator during the construction period.

Project Manager, WTP 2 Filter Replacement, Palm Beach County, FL

Provided Electrical, Fire Alarm, and instrumentation & control design for New Filters at WTP2, including designing new electrical distribution for the Filter Building and process, new switchboard, new motor control center (MCC), new variable frequency drives (VFD's), new solid state reduced voltage starters (SSRVS). Instrumentation and control/SCADA and new PLC control panel, RIO panel. New Fire Alarm System compliance with County ESS department requirements is also included.

Project Manager, WTP 9 SCADA and PLC Improvements, Palm Beach County, FL

Provided the instrumentation design, PLC programming and construction services for the PBC WTP 9 PLC replacement project. The PLC-5 system was replaced with a newer generation Control Logix PLC system. Designed and identified the replacement components for each existing PLC-5 and the related remote I/O (RIO) parts and performed a temporary installation to keep both the existing and the new PLC systems running in parallel. The existing system was replaced one-by-one to minimize the downtime and interruption of the existing RO water treatment process. A new PLC program was written for the Control Logix PLC system

Electrical, Instrumentation and Control Chief Electrical Engineer, Everglades Agricultural Area (EAA) A-1 Flow Equalization (FEB) Project, South Florida Water Management District, FL

The EAA A-1 FEB Project design and construction created approximately 15,000 acres of shallow detention basin with an estimated design average depth of four (4) feet. Performed the Electrical, Instrumentation and Control, SCADA and Telemetry design and construction management services for the EAA A-1 Flow Equalization Basin Project. Project electrical design components included two roller gate inflow structures, slide gate outflow structure, ten solar powered slide gate outflow structures. SCADA design included instrumentation and control for monitoring FEB water levels and remote operation of the inflow and outflow structures from South Florida Water Management District Headquarters. Telemetry designed for radio communication via Motorola ACE and CR1000 Remote Telemetry Units (RTU) to communicate with the South Florida Water Management District existing backbone microwave communication infrastructure.

Thein Win, P.E., Senior Electrical and Instrumentation Engineer
Hillers Electrical Engineering, Inc.

Education

Bachelor of Science in Electrical Engineering, 2001
Alfred University, Alfred, NY

Professional Registration

Registered Electrical Engineer: Florida No. 65722

Experience

19 years electrical and I&C design, programming, and construction management.

Hillers Electrical Engineering, Inc., 2001 to present

Engineering, design and construction services experience includes medium and low voltage electrical distribution systems, instrumentation and control systems design and implementation. Supervisory control and data acquisition (SCADA) systems experience in water treatment facilities and wastewater treatment facilities.

Electrical and I&C design for projects of nanofiltration treatment, reverse osmosis treatment, lime softening and wastewater treatment plants including reclaimed water systems. Programming of PLC and HMI for lift stations, raw water wells, water and wastewater treatment plants.

Performed design and construction services for various fire detection/suppression and alarm systems, communication networks, and telephone networks. Designed and supervised construction of remote gate operators, card readers, and remotely operated CCTV security systems and process monitoring systems.

Performed lighting and power distribution design for roadways, parks, sport fields, parking lots, including point-by-point illumination calculation and voltage drop calculations.

Skills include: preparation and presentation of specifications, value engineering, energy analysis, testing, cost estimates, start-up, onsite inspections for water and wastewater treatment projects.Proficiency with SKM Power Tools™ for Windows Dappers, CAPTOR and TMS; AutoCAD, SolidWorks, LitePRO, PLC programming, and HMI programming.

Professional Membership
Institute of Electrical and Electronic Engineers (IEEE)
Instrument Society of America (ISA)
LEED Accredited Professional

Project Experience

Electrical, Fire Alarm, Instrumentation and Control
East Central Regional Water Reclamation Facility
Performed Electrical, Fire Alarm, Instrumentation and Control, SCADA and Telemetry design and construction management services for 27 MGD reclaimed water facility that consist of 4 - 600HP rated 18-pulse Variable Frequency Drives and 6 deep bed filters.

Palm Beach County WUD – WTP 11 Clearwell Modifications and Miscellaneous Improvements
Performed Electrical and Instrumentation & Control Systems design and construction inspection services for construction WTP 11 design-build project. Project consists of new power distribution panel, mini-power zone panel, new variable frequency drives (VFD's), new RIO panel, fiber optic communication data highway, and new instruments.

Palm Beach County Water Utilities Department – WTP 2 Filter
Performed Electrical, Fire Alarm, Instrumentation and Control design and construction management services for new filters at WTP2, including designing new electrical distribution, new switchboard, new motor control center (MCC), new variable frequency drives (VFD's), new blowers for filter backwash, new instrumentation and control, new PLC system, and new fire alarm system.

Palm Beach County WUD – WTP 3 PLC Replacement
Provided project management, implementation design, installation and replacement of existing Allen-Bradley PLC-5 model with new up-to-date Allen-Bradley ControlLogix PLC model and associated I/O modules. Project consists of redesigning new communication loop while existing loop is still in operation, identifying what correct model for PLC-5 template adapter to replace with new I/O modules to minimize the re-wiring of the I/O points and implementing replacement of PLC by process area to minimize the system downtime.

Palm Beach County WUD – WTP 9 Emergency Generator Replacement
Provided electrical design and construction inspection services for replacement emergency generator that meets current EPA requirements (Tier 4 Final rating). Project includes designing new Tier 4 Final generator, new After-treatment system, Urea system, exhaust silencers, as well as temporary generator during the construction period.

Matthew Skidmore

1235 Park Lane South ♦ Jupiter, FL 33458 ♦ (561)748-3737 mskidmore@cccontrolcorp.com

Education

Bachelor of Science in Electrical Engineering
Masters in Business Administration
Professional Engineer

Experience

CC Control Corp.
Project Engineer *April 2003 to Present*

- Designed, checked, drafted and revised electrical, control processes, instrumentation loop and logic drawings.
- Specified instrumentation and control hardware
- Managed complete project life cycle.
- Conducted customer site startups, training, and troubleshooting.
- Created bill of materials, proposals, and quotes.
- Integrated supervisory control and data acquisition (SCADA) software.
- Programmed PLCs, MMIs, and RTUs.

McDonald Distributors
Applications Engineer *March 2001 to April 2003*

- Managed key customer accounts.
- Managed inventory levels and mix.
- Supported customer site startups and troubleshooting.
- Conducted training seminars and technical sales presentations.
- Created bill of materials, proposals, and quotes.
- Programmed PLCs, MMIs, and motion controllers.

Webtron
Lead Electrical Engineer *September 1998 to March 2001*

- Designed printing/converting machinery power distribution and control circuitry.
- Supported customer site startups and troubleshooting.
- Managed the assembly, startup, and quality compliance of presses.
- Created and revised bill of materials.
- Programmed PLCs, MMIs, and motion controllers.

Florida Power and Light Co.
Co-op Engineer *June 1994 to August 1997*

- Authored project specifications.
- Designed, checked, drafted and revised electrical, control processes, instrumentation loop and logic drawings.
- Specified instrumentation and control hardware
- Integrated supervisory control and data acquisition (SCADA) software.
- Created performance trends, process modeling and tuned plant controls.
- Authored preventative maintenance procedures and schedules for instrumentation and controls.

Rene R Viau

Energy Efficient Electric Inc. ● 1600 Mercer Ave Suite 6 ● West Palm Beach Florida 33401 ● (561) 655-7211
rene@energyeff.com

PRESIDENT / CONSTRUCTION MANAGER / ESTIMATOR

Construction manager with a 35-year record of success overseeing all phases of electrical construction with Energy Efficient Electric, Inc. This includes 15 years of estimating and design build experience.

Key Skills

– *Construction Projects* — *Bidding/Estimating/Proposals*	– *Site Safety/OSHA Compliance* – *Change Order Management*	– *Subcontractor/Crew Supervision*

Project Highlights

Water and Wastewater Projects (1989 to Present) Contract: $100K to $4M

Managed several projects involving new construction and renovations for Water and Wastewater Treatment Facilities, pump stations and well fields in the state of Florida while keeping the facilities operational.

Commercial Projects (1985 to 1989)

Constructed and supervised multiple cellular communication projects for AT&T wireless from building cell sites to constructing main operation centers.

Constructed new and renovated existing concrete and cement plants in the state of Florida.

Education & Certifications

- High school diploma
- 4 Year electrical apprenticeship program with the National Joint Apprenticeship and Training Program
- Fire Alarm and security certification
- Certification in fiber optic terminations
- Completed training and testing of Loader-Tractor-Backhoe operations
- Ongoing continuing education programs

Primoris Services Corporation
Cardinal Contractors

DESIGN-BUILD PROJECT EXPERIENCE

The chart below demonstrates the extent to which Cardinal Contractor's design-build work related to the projects identified in the Design Criteria.

CARDINAL CONTRACTORS, INC RELEVANT EXPERIENCE				DESIGN BUILD PROJECTS IDENTIFIED IN DESIGN CRITERIA COMPARED WITH OUR TEAM PREVIOUS EXPERIENCE																
				Design Build Package No. 1								Design Build Package No. 2					Future Possible Packages			
				1 Sodium Hypochlorite Feed System	2 Ammonia System Improvements	3 Polymer System Improvements	4 Lime Softener No. 3 Influent Mods	5 Flow Metering, Water Quality Monitoring and Control Improvements	6 Plant Water Improvements	7 General Improvements to SCB	8 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Standalone Lime System	2 Retrofit Existing Lime System (SCB)	3 Replacement of Electrical Gear (currently in NCB)	4 Recarbonation System	5 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Stabilization and/or demo/reconstruction of NCB	2 Rehabilitation of Lime Softening Units No. 1 & 2	3 Implemenation of Improvements to Existing Filtration System	4 Implemenation of Improvements to Main Electrical Service & Standby Generator
Project Title	Contract Amount	Year	Client																	
Fiesta Village Valve Replacement Maintenance PO	$21,484	2020	Lee County BOCC					✓	✓		✓					✓				
Master Pump Station 454	$4,622,000	2019	Broward County							✓	✓			✓		✓	✓			
Fiesta Village WRF Sludge & NAOCL System	$5,872,000	2019	Lee County BOCC	✓						✓	✓			✓		✓	✓			✓
Springtree WWTP Headworks Improvements	$9,090,000	2019	City of Sunrise					✓		✓	✓					✓				
Master Pump Station Controls Upgrade	$3,850,244	2019	Broward County					✓	✓		✓					✓				
WTP No. 8 Fluoride System Improvements	$797,646	2019	Palm Beach County	✓							✓			✓		✓	✓			
WTP #3, 9 & 11 Fluoride Improvements (WUD 19-023)	$1,985,000	2019	Palm Beach County					✓	✓		✓					✓				
WTP #8 Lime System And Process Improvements (WUD 19-038)	$1,892,000	2019	Palm Beach County					✓			✓	✓	✓			✓	✓			
WTP No. 8 Valve Replacements	$195,257	2019	Palm Beach County						✓		✓					✓				
WTP #3 & 9 Valve and Process Improvements	$1,809,090	2019	Palm Beach County						✓		✓					✓				
Pines WTP Accelator "D"	$256,000	2019	MKI Services, Inc.				✓	✓	✓		✓					✓		✓		

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Project Title	Contract Amount	Year	Client	1 Sodium Hypochlorite Feed System	2 Ammonia System Improvements	3 Polymer System Improvements	4 Lime Softener No. 3 Influent Mods	5 Flow Metering, Water Quality Monitoring and Control Improvements	6 Plant Water Improvements	7 General Improvements to SCB	8 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Standalone Lime System	2 Retrofit Existing Lime System (SCB)	3 Replacement of Electrical Gear (currently in NCB)	4 Recarbonation System	5 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Stabilization and/or demo/reconstruction of NCB	2 Rehabilitation of Lime Softening Units No. 1 & 2	3 Implemenation of Improvements to Existing Filtration System	4 Implemenation of Improvements to Main Electrical Service & Standby Generator
New Booster Pumping Station for System 3A	$2,497,361	2018	Broward County	✓	✓			✓	✓		✓			✓		✓				
Headworks & Filter CMAR	$3,697,202	2018	City of Sarasota								✓					✓			✓	
Fiesta Village WWTP Filter Controls Upgrade	$1,796,850	2018	Lee County BOCC					✓			✓					✓			✓	
WTP #8 Finished Water Improvements	$2,111,268	2018	Palm Beach County					✓			✓					✓				
Winson Water Treatment Plant Bid Package 1: Filter Rehab	$3,295,701	2018	City of North Miami				✓	✓	✓		✓			✓		✓		✓	✓	
WTP#8 Lime Slakers, Fuel Storage Tnaks and High Service Pump Replacement WUD 17-034	$2,030,950	2017	Palm Beach County								✓	✓	✓			✓				
Water Treatment Plant #2 Improvements (R2017-0733)	$2,136,487	2017	Palm Beach County	✓	✓		✓	✓	✓		✓	✓	✓	✓		✓				✓
WTP #3 Membrane Cleaning, Strainer and Clearwell	$2,054,665	2016	Palm Beach County								✓					✓				
City of Sarasota Siesta Key Master Pump Station and Forcemain	$6,038,841	2016	Sarasota County					✓	✓		✓			✓		✓	✓			✓
City of Sunrise Sawgrass Membrane Replacement and Acid Modifications	$871,733	2016	City of Sunrise					✓	✓		✓					✓				
WTP #8 Vacuum Filter / HSP 3&4	$1,834,679	2016	Palm Beach County						✓		✓			✓		✓				✓
Pioneer Mainline Pipeline 007 Pump Station	$7,773,292	2016	Pioneer Natural Resources								✓			✓		✓				

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City of Galveston New 59th Street Pump Station	$21,642,939	2015	City of Galveston	✓	✓			✓	✓	✓	✓			✓		✓	✓			
City of Venice Reverse Osmosis WTP Odor Control System Replacement	$2,402,883	2015	City of Venice	✓				✓	✓	✓	✓			✓	✓	✓	✓			✓
Sawgrass Wastewater Treatment Plant Reuse Facility - Phase 1	$15,104,550	2015	City of Sunrise	✓		✓		✓		✓	✓			✓		✓			✓	
City of Abilene Hargesheimer WTP Expansion	$15,862,201	2015	City of Abilene	✓	✓			✓	✓		✓					✓			✓	
City of Andrews Water Treatment Plant	$3,586,499	2014	City of Andrews					✓	✓		✓					✓			✓	
Fiesta Village Switchgear & Generator Replacement	$2,681,411	2014	Lee County BOCC								✓			✓		✓				✓
Gaines County Water Supply, LLC Seminole Water Project Design Build	$10,021,502	2014	BW Primoris	✓	✓			✓	✓	✓	✓			✓		✓				
Sawgrass WTP Rerate Improvements	$2,206,535	2013	City of Sunrise	✓				✓	✓	✓	✓			✓		✓	✓			
WTP Emergency Generator Replacement	$1,563,089	2013	City of Tamarac								✓			✓		✓	✓			✓
Broward County WTP 2A 4-Log Virus Removal	$1,971,061	2013	Broward County	✓	✓		✓	✓	✓	✓	✓			✓		✓				
Sawgrass WTP Improvements	$5,469,501	2013	City of Sunrise	✓	✓			✓	✓	✓	✓			✓		✓	✓			✓
SWWRF Lake Filtration System & Pond Improvements	$12,984,048	2012	Manatee County	✓		✓					✓		✓			✓				✓

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				DESIGN BUILD PROJECTS IDENTIFIED IN DESIGN CRITERIA COMPARED WITH OUR TEAM PREVIOUS EXPERIENCE															
				Design Build Package No. 1								Design Build Package No. 2					Future Possible Packages			
Project Title	Contract Amount	Year	Client	1 Sodium Hypochlorite Feed System	2 Ammonia System Improvements	3 Polymer System Improvements	4 Lime Softener No. 3 Influent Mods	5 Flow Metering, Water Quality Monitoring and Control Improvements	6 Plant Water Improvements	7 General Improvements to SCB	8 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Standalone Lime System	2 Retrofit Existing Lime System (SCB)	3 Replacement of Electrical Gear (currently in NCB)	4 Recarbonation System	5 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Stabilization and/or demo/reconstruction of NCB	2 Rehabilitation of Lime Softening Units No. 1 & 2	3 Implemenation of Improvements to Existing Filtration System	4 Implemenation of Improvements to Main Electrical Service & Standby Generator
SW Water Reclamation Facility Clarifiers 1 & 2 Rehab	$1,194,999	2012	Manatee County								✓					✓				
Springtree WTP Sodium Hypochlorite Tank Replacement	$374,758	2012	City of Sunrise	✓					✓		✓					✓				
Water Treatment Refurbish & Internal Painting of Lime Softening Treatment Unit	$240,391	2012	Town of Davie Florida			✓	✓	✓	✓		✓					✓				
Water Treatment Plant Improvements & New Supply Well	$7,686,643	2011	City of Arcadia	✓		✓		✓	✓	✓	✓			✓		✓	✓			✓
Shelby County Commission Talladega/Shelby WTP 2011 Improvements	$3,030,979	2011	Shelby County Commission					✓			✓					✓				
City of Marco Island NWTP Imps & MF Sys. Install	$3,701,753	2011	City of Marco Island		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
City of Ft. Lauderdale Influent Screening Devices Replacement	$1,495,858	2011	City of Ft. Lauderdale								✓			✓		✓				
Scottsboro Water, Sewer & Gas Board Southside WWTP 2010 Imp.	$2,391,967	2011	Scottsboro Water, Sewer & Gas Board								✓			✓		✓				
Everest WTF Odor Control System Project # CON-PW 10-27/PB	$757,221	2010	City of Cape Coral								✓					✓				
Bear Creek WTP Project No. 5-08-064 (1)	$1,594,106	2010	Water Works Board of the City of Pratville	✓	✓	✓		✓	✓	✓	✓			✓		✓				✓
Sawgrass WWTP Effluent Injection Well Pumping System Project No. 403-6198	$3,427,083	2009	City of Sunrise					✓			✓			✓		✓				✓
Ph 2 Water/Wastewater Plant Improvements	$14,980,936	2008	City of Pembroke Pines	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓

Primoris Services Corporation
Cardinal Contractors

CARDINAL CONTRACTORS, INC
RELEVANT EXPERIENCE

				DESIGN BUILD PROJECTS IDENTIFIED IN DESIGN CRITERIA COMPARED WITH OUR TEAM PREVIOUS EXPERIENCE																
				Design Build Package No. 1								Design Build Package No. 2					Future Possible Packages			
Project Title	Contract Amount	Year	Client	1 Sodium Hypochlorite Feed System	2 Ammonia System Improvements	3 Polymer System Improvements	4 Lime Softener No. 3 Influent Mods	5 Flow Metering, Water Quality Monitoring and Control Improvements	6 Plant Water Improvements	7 General Improvements to SCB	8 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Standalone Lime System	2 Retrofit Existing Lime System (SCB)	3 Replacement of Electrical Gear (currently in NCB)	4 Recarbonation System	5 Ancillary Improvements - Piping, Injection Points, Supports, Painting, etc.	1 Stabilization and/or demo/reconstruction of NCB	2 Rehabilitation of Lime Softening Units No. 1 & 2	3 Implemenation of Improvements to Existing Filtration System	4 Implemenation of Improvements to Main Electrical Service & Standby Generator
Wastewater Reclamation Facility Expansion RFQ 08-03-01	$10,033,106	2008	City of Miramar	✓							✓			✓		✓				
WTP 1A Disinfection System Modifications BCWWS Project #8973	$2,959,321	2008	Broward County	✓	✓			✓	✓	✓	✓				✓	✓	✓			
Southern Region Water Reclamation Facility Odor Abatement Improvements Project No. WUD 07-096	$4,876,511	2008	Palm Beach County	✓							✓			✓		✓	✓			
Glades Road WTP Gravity Filters Rehabilitation Project # 71-07-004	$5,227,573	2008	City of Boca Raton					✓	✓	✓	✓			✓		✓			✓	
Charlotte County Storage Booster Pumping Stations Bid No. 2008000093	$2,856,871	2008	Charlotte County								✓					✓				
Valrico AWTP Expansion from 6 to 12 MGD Ultraviolet Disinfection	$50,767,609	2007	Hillsborough County			✓					✓			✓		✓	✓			✓
WTP Improvements Ph I Project #05852435	$6,662,586	2007	City of West Palm Beach	✓	✓	✓	✓	✓	✓	✓	✓					✓			✓	
Everest WRF Expansion Plant Upgrade Project # WW-1C.3	$21,035,105	2006	City of Cape Coral	✓	✓					✓	✓			✓		✓	✓		✓	✓

TAB F

past performance

Primoris Services Corporation
Cardinal Contractors

Pembroke Pines Emergency Anion Exchange Rehabilitation

Name & Address of Company

City of Pembroke Pines

8300 South Palm Drive Pembroke Pines, FL 33025

*Cardinal Project

Contact Person

Johnathan Cooper, PE

Phone Number

954.518.9063

Dates Services Provided:
Start - End

2017-2018

Description of work performed

Emergency rehabilitation of the eight (8) Ion Exchange Units. The scope of work includes the removal and replacement of the Resin and Gravel beds, metal repairs on the tanks and pipe supports inside and outside of the tanks, replacement of the brine distribution headers, replacement of motor operated valves and flow meters, replacements of the feed pumps and piping, programming and process improvements, salt storage and brine feed improvements, as well as the associated electrical work and coatings. The project also included a temporary CO2 direct gas injection system as well as process piping improvements.

Work Authorization #5 – Water Treatment Plant #2 Improvement

Name & Address of Company

Palm Beach County, BOCC

301 N. Olive Avenue, West Palm Beach, FL 33401

*Cardinal Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

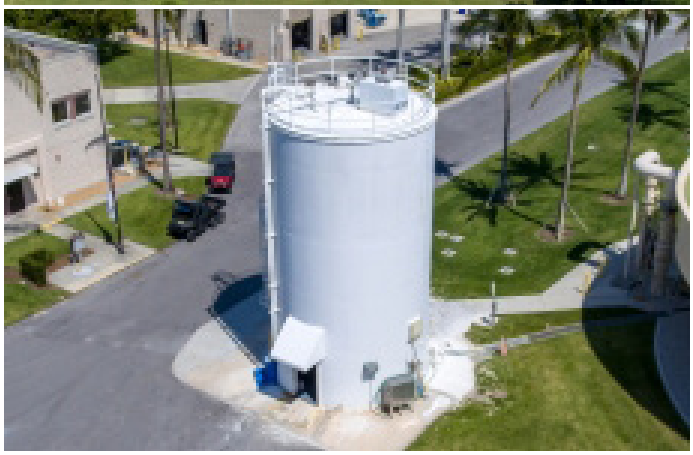
Dates Services Provided:
Start - End

2017-2018

Description of work performed

This project is part of a three year continuing services agreement where Palm Beach county selected Cardinal Contractors, Inc. to perform various improvements to its facilities. Each contract was limited to a $2 million construction value.

Construction at WTP #2 includes increasing the high service pumping capacity and upgrading an aging lime feed equipment. Work also includes replacing the plant main electrical breaker and adding two high service pumps with variable frequency drives to improve fire flow and pumping capacity during hurricanes



Primoris Services Corporation
Cardinal Contractors

Gateway WasteWater Treatment Plant Rehabilitation of Existing Treatment System

Name & Address of Company

Lee County, BOCC
1500 Monroe St. 3rd Floor, Fort Myers, FL 33902

*Cardinal Project

Contact Person

Luis Molina, PG, PE

Phone Number

239.533.8598

Dates Services Provided:
Start - End

2015-2016

Description of work performed

Complete repairs and rehabilitation of the existing 1.0 MGD Davco Filed Erected Dual Path Waste Water Treatment Plant, with the Gateway Water Treatment Plant. Including design, permitting and construction of various plant improvement, consisting of: Complete repair and rehabilitation of the existing 1.0 MGD Davco Field Erected Dual Path WWTP. Steel tank filters system replacement with owner furnished 1 MGD Disc filter. Repair existing concrete chlorine contact tanks (2 each) and ancillary equipment. Complete rehabilitation of existing Davco transfer pump station. Replace existing blowers as needed, upgrade existing Control/Electrical panel, Approximately 150 LF of pipeline to connect the 1.0 MGD Davco WWTP to the new Deep Bed Sand Filters for redundancy. Remove and/or demolish surplus equipment. .

Primoris Services Corporation
Cardinal Contractors

WTP 2, 3 and 9 NaOCl and Brinemaker Tank Replacements

Name & Address of Company

Palm Beach County Water Utilities

8100 Forest Hill Boulevard, West Palm Beach, FL 33413

*Cardinal and CGA Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

Dates Services Provided:
Start - End

2016-2017

Description of work performed

Cardinal and CGA were part the Design/Build Team that replaced several tanks at Water Treatment Plants #2, 3 and 9. Design/Build Services for the design, permitting and construction to replace-in-kind (12) 20,000 gallon Sodium Hypochlorite (NaOCl) Fiberglass (FRP) Storage Tanks and (4) 10,000 gallon Fiberglass Salt Storage/Brine Maker Systems. Per the request of the County, the Design/Build Team supplied the plan sets as three, separate sets. Tanks were designed to withstand 186 mph winds. Sodium Hypochlorite Tanks are designed for use with both 12.5% Bulk and 0.8% Diluted Chemical. Flexible connections were added to all pipe connections to the tanks. Some additional level instrumentation was added. Safety enhancements added Safe-T-Climb ladder fall arresting system, OSHA tank labeling

During construction, additional requests were made to replace piping, and modify the salt fill-pipes to accommodate recent changes in the safety regulations. Design/Build team was able to accommodate the additional piping request with little additional cost to the County.

Primoris Services Corporation
Cardinal Contractors

WTP 8 Vacuum Filter Replacement

Name & Address of Company

Palm Beach County Water Utilities

8100 Forest Hill Boulevard, West Palm Beach, FL 33413

*Cardinal and CGA Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

Dates Services Provided:
Start - End

2017-2017

Description of work performed

Cardinal and CGA were part the Design/Build team that replaced an existing EIMCO rotary drum vacuum filter, that had reached the end of its design life, with a new WesTech filter of the same design. The filter is used to process lime sludge produced during water treatment. The Auxiliary pumps and vacuum equipment were also replaced. Owner-supplied sludge feed-pumps were installed, with seal water piping and new discharge pipe. Additional safety items, such as a perimeter safety pull-cord was added. Existing platforms were lowered to fit the new filter. During construction, costs were reduced by using some of the existing fittings for the feed pipe. Some floor penetrations were required. New electrical MCC buckets were provided for all new pumps and motors. VFD's were added to the sludge feed pumps. New lighting was added to the second floor of the Vacuum Filter Building. The existing chute was modified after vacuum filter installation to accommodate some filter misalignment. The Design/Build team successfully provided the idea of adding a Teflon sheet to the interior chute to mitigate any potential for the filter cake to stick to the walls, and provided further suggestions to correct the remaining chute configuration problems with respect to cake bridging.

Owner-furnished High Service Pumps 3 and 4 were replaced. Existing motorized check valves were replaced with owner-furnished check valves.

Primoris Services Corporation
Cardinal Contractors

WTP 8 Slaker and Fuel Tank Improvements

Name & Address of Company

Palm Beach County Water Utilities

8100 Forest Hill Boulevard, West Palm Beach, FL 33413

*Cardinal and CGA Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

Dates Services Provided:
Start - End

2017-2018

Description of work performed

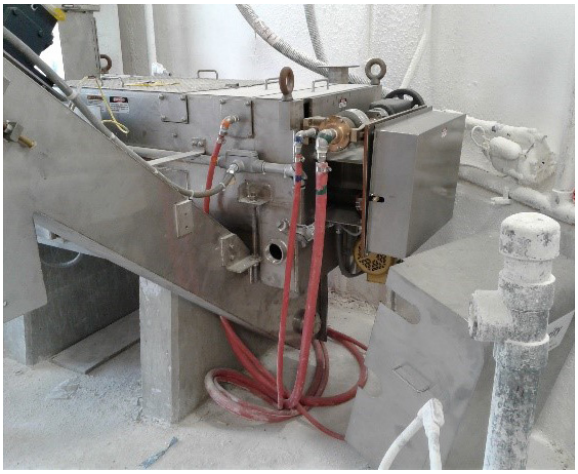
Cardinal and CGA provided needed improvements to WTP 8. These improvements were to its lime slaking system and fuel storage tanks. The lime slaking system replaced two aging 2,000 lb/hr lime slakers with new slakers of the same capacity, and added additional lime silo storage measuring instrumentation to improve lime reordering. All floor mounted electrical conduit was removed and replaced with overhead conduit, per the County's safety program. Lime slurry mixing boxes were replaced and moved outside the slaker to facilitate safety concerns inside the lime silo.

Diesel storage capacity was increased by replacing an existing 10,000-gallon storage tank with a larger 20,000-gallon tank, providing additional emergency preparedness and increasing the time between refueling. Another aging 2,000-gallon storage tank with a new 2,000-gallon tank. A new Veeder-Root fuel monitoring system was added to the 2,000-gallon tank. A leak detection system was added to the Wellfield Generator room.

High service pumping capacity was improved with the replacement of High Service Pump 5.

Three finished water storage tanks received state-of-the-art mixers to reduce THM production and increase dissolved oxygen in the distribution system. Two mixers were added to each of two 5 MG storage tanks and one mixer added 2 MG storage tank. Baffle curtains were removed from the two 5 MG ground storage tanks.

The mixers were the first part of a water quality improvements system, the second of which was started before the completion of this project, showcasing the versatility of the Design/Build Team to adjust to a fluid and ever-changing construction requirement.



Primoris Services Corporation
Cardinal Contractors

Water Treatment Plant 2 Slurry Containment Area

Name & Address of Company

Palm Beach County Water Utilities

8100 Forest Hill Boulevard, West Palm Beach, FL 33413

*CGA Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

Dates Services Provided:
Start - End

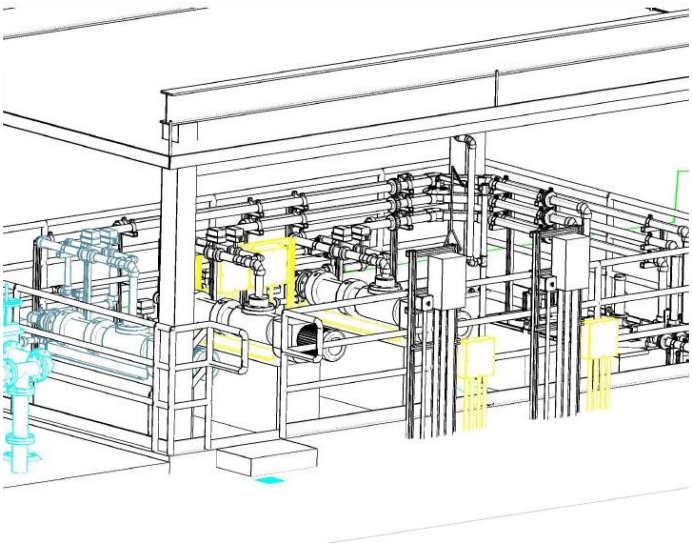
2018

Description of work performed

This project includes design, permitting, and construction services for the replacement of the existing lime slurry delivery system with a pumped delivery system, under a canopy to prevent rainfall from entering the slurry box. The entire delivery system was placed in a containment area to reduce the potential for environmental spills. Electrical components were placed above the walls for protection in the event of a flooded containment. Included with the slurry delivery system was the replacement of an aging, 2,000 lb/hr lime slaker with existing pipe and a control panel. Additional level controls were added to the slurry box that are used to control the slurry pump speed. The controls were incorporated into the plant-wide SCADA system.

As with almost any Design/Build project, the client will discover additional items that need to be incorporated into the project. As this project developed, safety equipment was added to the scope, such as guardrails around the containment berm, and a safety shower.

Project Services included the engineering disciplines of mechanical, structural, electrical, and instrumentation and controls. Design plans and specifications were developed to obtain all applicable engineering and building permits. This project highlighted the design capabilities of the team, through the development of a 3D Model. Final construction closely followed the design.



Primoris Services Corporation
Cardinal Contractors

Water Treatment Plant 8 Finished Water Improvements

Name & Address of Company

Palm Beach County Water Utilities

8100 Forest Hill Boulevard, West Palm Beach, FL 33413

*Cardinal and CGA Project

Contact Person

Steven McGrew, PE, DBIA

Phone Number

561.493.6110

Dates Services Provided:
Start - End

2018

Description of work performed

Cardinal and CGA were part the Design/Build Team that completed a portion of an earlier project (WTP 8 Slaker, Fuel System Improvements): the addition of mixers. This is the next stage from that earlier project that added mixers as the first step in the process to reduce the THM exiting to the distribution system. This project completed the THM removal with the addition of additional tank water surface aeration and ventilation to air strip the THMs accumulating the ground storage tanks. The project added five surface aerators, with floating support systems, and three roof-top blowers to each of two 5 MG storage tanks. The systems include local control panels. Six ventilation ports added to each tank. The control panels were provided with HMI (Human-Machine Interface) screens, and were configured to connect to the plant SCADA system. The project reduced the THM formation by 50%.

Palm Beach County is concerned with plant safety, so during the project, additional safety items were added, such as replacement of all 2-rail handrails with 3-rails, plus replacing the “tie-off” system of roof safety with a new, circular 3-rail handrail system. All broken lightning protection was also replaced.

Primoris Services Corporation
Cardinal Contractors

Sodium Hypochlorite System Rehab and Co2 Injection System

Name & Address of Company

City of Pembroke Pines

8300 South Palm Drive, Pembroke Pines, FL 33025

*CGA Project

Contact Person

George Wrves, PE

Phone Number

954.518.9040

Dates Services Provided:
Start - End

2018-2019

Description of work performed

The Pembroke Pines Water Treatment Plant (WTP) is located at 7960 Johnson Street, Pembroke Pines, Florida. The WTP produces a 18 MGD Annual Average Daily Flow (AADF), composed of 6 MGD Greenleaf rapid sand filtration units, 6 MGD IX treatment units, 350,000 gallon clearwell, 2 MGD storage tanks, 1 MGD storage tank, ton chlorine gas tanks, a bulk liquid sodium hypochlorite disinfection system, and all related appurtenances of the water treatment equipment.
The City proposed to rehabilitate the existing sodium hypochlorite disinfection system and install a new carbon dioxide (CO2) injection system. The sodium hypochlorite improvements included the replacement two sodium hypochlorite injection triplex skids, transfer pump, two bulk tanks and one FRP day tank, repair spalled concrete and concrete cracks in the sodium hypochlorite containment structure, recoat all concrete surfaces for the containment area, control and electrical components to provide a complete and properly functioning of the system. The new CO2 injection system addition included a new carbon dioxide pressurized solution feed system, yard piping, turbidity meters, post-clearwell ammonia analyzer, relocation of pH probes, controls and electrical components to provide a complete and properly functioning of the system. The project scope consisted of design, permitting, producing plans and technical specifications, bidding assistance, recommendation of award, attending construction progress meetings, addressing Contractor RFI's, reviewing shop drawings and as-builts, conducting routine site inspections and overseeing the station startup.

TAB G

project understanding, proposed approach, and methodology

Tab G - Project Understanding, Proposed Approach, and Methodology

PROJECT UNDERSTANDING

The City of Riviera Beach is seeking an experienced Design-Build firm to provide engineering and construction services to improve the existing chemical feed system. *Our team is familiar with the scope included in this Contract, specifically with the Design Criteria prepared by Brown and Caldwell. During the initial phase of the project, we developed detailed drawings and cost associated with the design and construction of the Design-Build Package No. 2 as included in the latest Design Criteria included in the RFQ package.*

The City is looking for an experienced team that can develop, evaluate and improve a chemical feed system meeting the City needs. The following sections outline how our team will work together with the City to successfully complete the design and construction services for the improvements of the chemical feed system on schedule and on budget.

The chemical feed system improvements at the Riviera Beach WTP is a critical project for the City, involving several components along the process units of the Plant. The chemical feed system improvements as separated are divided into Package No. 1 and Package No. 2. The Package No. 1 comprises the design and construction of a new sodium hypochlorite feed system, replacement of the existing ammonia system, in-kind replacement of the existing polymer system, retrofit existing lime softener no. 3 influent, new lime softener, flow metering, water quality monitoring and control. And the Package No. 2 includes the new standalone system capable of feeding the three existing Softening Units, retrofitting the existing lime system located at the South Chemical Building (SCB), that currently feeds the Softening Units No. 1 and 2, to extend the feeding to Softening Units No. 3, a new recarbonation system and replacement of the electrical gear located in the North Chemical Building (NCB). In addition, the RFQ considers improvements to the WTP including the SCB and ancillary improvements. The City is looking for an experienced team that can develop, evaluate and improve the existing facility to meet the City needs.

The Design-Build team has a detailed understanding of the City's needs based on our previous deep analysis of the project needs and challenges. Furthermore, we have a broad range of experience with design-build projects that includes rehabilitation, improvements, relocation and new facilities within existing Water Treatment Plants (WTPs) in Florida. We have recently completed improvements projects to the existing chemical feed and injection systems in booster stations and WTPs, among other projects. Our team provides experienced personnel to successfully deliver all the required services that may come up under this contract including data collection, surveys, civil, geotechnical, mechanical, structural, electrical and instrumentation and control design, and construction phase services.

Some of the challenges with a Design-Build contract include scheduling and budgets. We address this issue by conducting a thorough review of the Design Criteria provided by the City, record drawings and field conditions to prepare a detailed plan. This allows us to bring up any issues to City staff from the very start to avoid surprises and present them with alternative solutions. We will alert the City to factors that could potentially affect the extent of the design and account for it in the contract to avoid scope creep. Our team of talented professionals allows us to assign the appropriate skill level to meet project goals and budget.

One other important issue is providing quality control for specialty items or subconsultants' specialty services. Our design team has a developed Quality Control (QC) Plan to ensure the documents meets the City criteria and more over

the regulatory agency's requirements. In addition, the construction managers actively engages in reviewing all design submittals prior to submitting to the Client as a part of our QC program. This secondary review focuses on dimensions, constructability, scheduling, warranty and confirmation of adherence to contractual obligations.

WE KNOW THE SYSTEM

The advantage of our team is we have studied the existing conditions and operation of the Riviera Beach WTP. The WTP with a permitted capacity of 17.5 million of gallons per day (MGD) and a maximum daily flow of 14 MGD consists of three lime softening units, sixteen filters two interconnected clearwells, four scrubber systems, two aeration basins and a sludge thickener out of service. In addition to the existing chemical feed system located in the NCB and the SCB.

Additional key elements of the existing chemical feed system include:

- Lime Storage and Feed - There are four lime storage silos at the WTP, however only two slakers located at the SCB are functioning. The existing system does not have the capabilities to feed the Softener Unit No. 3. The functioning lime feed system is composed of one lime storage area located at the top floor, steel hopper, two paste type lime feeder slakers, one splitter box, 4-inch PVC piping feeding by gravity the Softeners No. 1 and No. 2, control panel and two pH probes installed at Softeners No. 1 and No. 2. The pH probe of Softener No. 1 is not functioning.
- Disinfection - Water is currently disinfected using chloramines. Free chlorine is supplied by a gaseous chlorination system and mixed with free ammonia injected from an anhydrous ammonia system.
- Polymer is currently added upstream of the treatment units to act as a coagulant to reduce settled water turbidity.

PROJECT APPROACH

This project will require the analysis of existing conditions and the design of proposed improvements contemplated in this project, therefore CGA will perform due diligence efforts to confirm our understanding. This may include observations of the WTP operations, wellfield site, topographical survey, and environmental assessment. CGA's familiarity with the existing area will help expedite this process.

Our team has already commenced the coordination process with the various utility owners to determine the locations of existing and future planned utilities. This will lead to vacuum excavation of existing utilities for resolution of potential conflicts with proposed improvements. This data will be included on the design survey and will be used throughout the design, review and project management process.

After an evaluation of the City's needs described under this RFQ, we have prepared a conceptual design based on the information provided and our team's knowledge of the City's system. The approach described under this RFQ is based on preliminary information, further due diligence and detailed design is necessary.

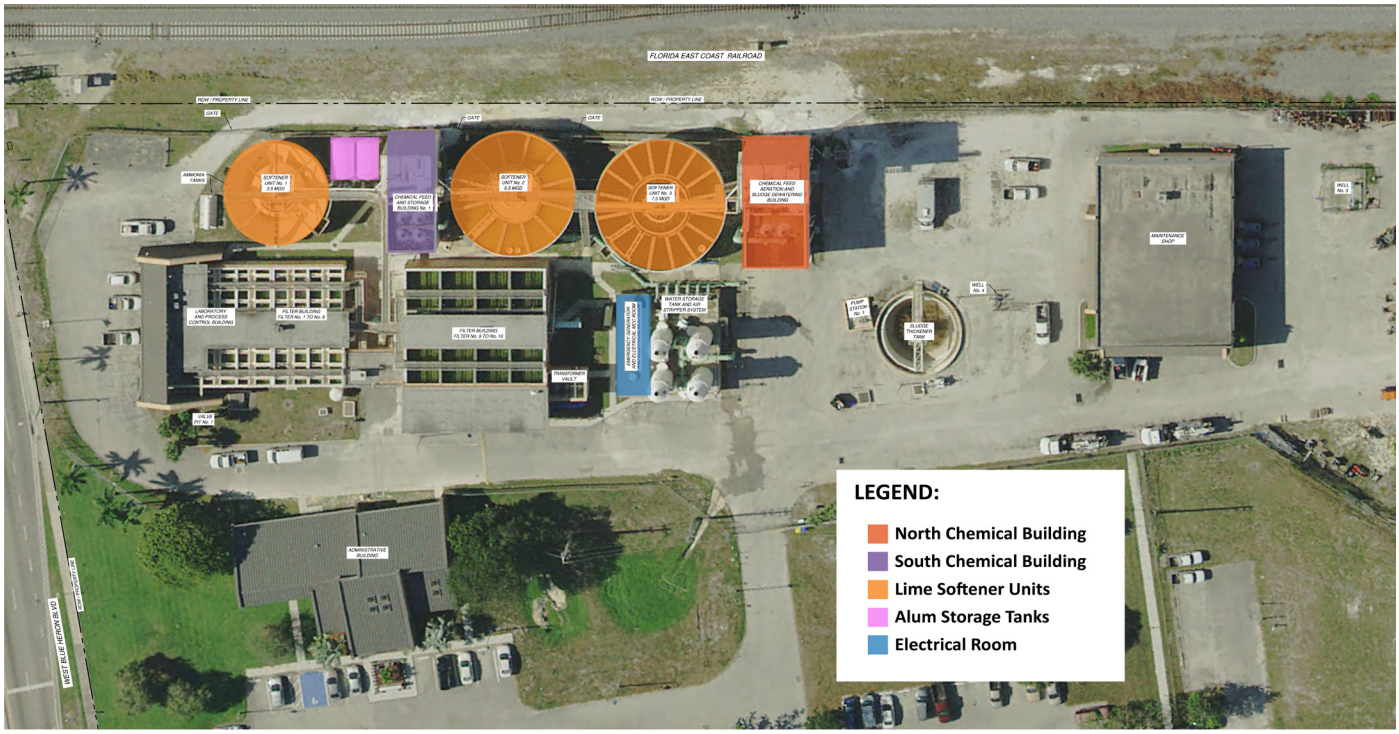
The main goal of the City is to provide a safe and more reliable chemical feed systems for the Riviera Beach WTP. Determining our clients' needs and the way those needs affect the project's quality, cost, and delivery is critical to accomplishing the project goals and objectives. To better understand the project intents, below is a description of the main components included in the RFQ. The figure below shows an aerial view of the existing units and highlighted areas considered in this RFQ.

- **New Sodium Hypochlorite Feed System** to provide a new disinfection system to feed at the air strippers raw water influent, north and south influent basin raw water influent, recycle water, return

backwash water, lime softener units, storage tank, high service pump and finished water discharge. Based on the parameters included in the Design Criteria, the design team will calculate the capacity of the system components.

- Improvements to the existing Ammonia System to provide in-kind ammoniators located on the South Chemical Building. The new system will feed the North Influent Basin Raw Water Influent, South Influent Basin Raw Water Influent. High Service Pump Clearwell and Finished Water Discharge.
- **Improvements to the existing Polymer** to provide in-kind Polymer Feed System located on the first floor of the South Chemical Building. The new system will feed each of the Lime Softener Units.
- **Retrofit the existing Lime System** to provide a reliable feeding to Softener Unit No.1, No.2 and No.3. The retrofit shall include installation of a pump system to feed each softener. Install a slurry tank north of the SCB, connect existing splitter box to discharge by gravity into the slurry box. The retrofitted system will also include the installation of a mixer, pumps, rigid hoses and pinch valves connected into each softener unit. Also, replacement of the two existing pH probes of lime softener units no. 1 and no. 2 and addition of one pH probe of softener unit no. 1 and additional modifications to allow controlled delivery. The retrofitted existing lime feed system will be maintained in a standby mode to temporarily feed lime in event the operation of the proposed standalone system is interrupted.
- Addition of a **new Standalone Lime System** to allow for controlled application of lime to the existing Lime Softener Units. The proposed standalone lime feed system shall include two silo/slaker units, one in duty and one standby, to be located north of the existing NCB. The proposed location will allow for easy access and delivery to the lime feed system. The proposed standalone system as furnish and install by RDP Technologies, Inc. consists essentially of a bulk lime storage silos, lime feeders, lime slakers, slurry aging tanks, fine grit classifier, slurry pump and delivery system, system control panels and lime truck unloading panels. The feed system shall be controlled in proportion to flow at an operator selected dose required to meet target pH. The settled water pH in each softening unit shall be continuously monitored and reported locally and remotely via the SCADA system. The system will operate with the use of a slurry pump through a common, continuous 4-inch PVC and XLPE industrial hose transitions feed loop system. The system control panel will include a human-machine graphical interface for use in controlling and accessing information regarding the system. The panel will include an Allen-Bradley CompactLogix programmable controller, which can be connected to the WTP wide control and monitoring system.
- The replacement of the **existing Electrical Gear** includes the removal of the existing Motor Control Center (MCC) No. 3 located in the Electrical Room of the NCB and all the existing electrical loads associated with MCC No. 3 that shall be relocated to a new MCC or new distribution panel at the Air Stripping Building – Electrical Room. The existing PLC panel located in the NCB shall also be removed and all signals associated with MCC No. 3 shall be relocated to other existing or new PLC/RIO panels. The existing electrical service, ATS, and MCC No. 5 located at the Air Stripping Building do not have enough capacity and shall be upgraded where applicable to include the relocated electrical loads. A new mini-power zone shall be designed at the existing lift station located near the NCB to supply 208V power to the existing lift station control panel.
- Addition of a **Recarbonation System** to control and reduce the pH levels of the treated water at the WTP. The CO2 system will inject liquid carbonic acid, produced on-site, to lower the pH of the finished water to meet a target pH of 8.5 as included in the Design Criteria. The proposed CO2 system shall include a 26 tons CO2 vertical storage system capable of storage a minimum of 30 days, carbonic acid feed system with a rate of 40 lb/hr for each softener unit, booster pump with a carrier water required of 40 gpm at a minimum carrier water pressure of 30 psi, online pH monitoring

at softener's effluent to provide 90 seconds after carbonic acid injection, yard piping, all structural, electrical, instrumentation and control work associates with the new system It is estimated that a 70 lbs/hr would be needed for the 14 MGD plant.



RIVIERA BEACH WTP - AERIAL VIEW

CONCEPTUAL DESIGN

The CCI Team has prepared a conceptual design for the items that we consider needs detail coordination due to the integration of the systems. The drawings prepared are shown in Appendix 1. During the development of the proposal, the CCI Team performed several site visits to the WTP and met in several occasions to prepare the proposed conceptual design. Also, our team had several meetings with equipment manufacturers to discussed the project needs and associated costs. Our conceptual design considers the requirements included in the Design Criteria, but moreover considers potential cost-saving, constructability, improved operation taking into consideration the maintenance and accessibility.

Primoris Services Corporation
Cardinal Contractors

DESIGN-BUILD PROJECT EXECUTION

Our team has an extensive experience delivering design-build projects, this is why we have been able to establish a delivery method to successfully complete the projects. Our design-build approach continues to prove our capabilities from time to time on projects with similar scope to the one included in this RFQ, from evaluation of chemical feed systems to replacement, improvements and new system projects in Florida. Key projects are highlighted in the **Team Project Highlights Exhibit.**

Exhibit - Team Project Highlights

Sodium Hypochlorite & CO2 Injection System – Our team recently completed the design and construction administration services of the rehabilitation of the sodium hypochlorite and addition of a new CO2 injection system at the Pembroke Pines WTP. The experts from this project are included on our proposed team to bring the knowledge and experience from this project to the City. The overall project included temporary CO2 facility installed and implemented to immediately correct existing treatment issues at the facility followed by a formal design and construction process to provide a permanent long-term solution for the facility.

PBC Design-Build Improvements – Our team has been engaged in developing, designing and constructing over 20 projects totaling $30 million in the last 10 years. Those projects include sodium hypochlorite storage and piping systems, lime slaking and pumped lime delivery systems, odor control systems, concrete rehabilitation, lime softener influent piping modifications, high service pump replacements, ground storage tank improvements, design studies, electrical upgrades, flushing systems, concrete rehabilitation and process and control improvements at 5 water treatment plants.

Phase III Design/Build Plant Redundancy Expansion – This fast-track project involves installation of a 4th 6 MGD Lime Softening Treatment Unit, replacement of a 1000 lb/hr Lime Slaker with 2000 lb/hr unit, a 4th Greenleaf Multimedia Sand Filter (6MGD), a 2nd 6 MGD Tonka Anion Exchange plant for color/TTHM precursor removal, conversion from gaseous Chlorine to Liquid Sodium Hypochlorite for disinfection, one (1) 2600 gpm HSP, conversion of five (5) HSPs and four (4) Clear Well transfer pumps to VFD control, replacement of two (2) aging 900 HP diesel driven electrical Generators with 1000 HP units, and Plant Wide SCADA replacement of Omron based PLC controls with Allen Bradley PLC controls and all required Electrical System upgrades.

This team has collaborated on several distinct design-build projects. Our previous experience on chemical feed system projects gives our team an exceptional knowledge and ease of communication needed in a successful team and more over in the delivery of a design-build project.

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We have put together a summary of the design-build process that we have used on previous projects. We intend to continue and expand upon the success in the approach that we have developed as a team. This expanded approach we see as the following activities:

EVALUATION OF THE WORK SCOPES

After a site review, we contact the various vendors and suppliers to obtain initial pricing and prepare an opinion of cost that includes various qualifications such as assumptions and limitations that the pricing is based upon. A meeting including the design-build team, subconsultants, City, and program manager would follow to review the opinion of cost, and modify the scope to better optimize for all the constraints including budget, design, and construction requirements. Once the final scope is determined a Work Authorization in the City's desired format is prepared for submission and approval prior to starting. This Work Authorization includes acquisition of multiple scopes, and a more detailed description of the scope to be performed. We can perform this in a one step process with a GMP where the city and its Design Criteria Engineer are involved throughout the 30% design, scope refinement and estimating phase. The one step process can shorten the overall contract duration. This can process can be also accomplished using a two-step process with a Consultant Services Authorization (CSA) for design and estimating phase, then a Work Authorization (WA) for the construction portion of the work. The two-step process trades a little time for additional control and a negotiated lump sum construction cost. This team has implemented projects using both procedures depending on the client's preference. Our team is flexible and willing to work with the City to implement the best procedures for the client.

In high-priority, time sensitive improvements, the team can reduce overall project delivery times to meet the needs of the client.

In these upgrades, we generally must produce a 30% design in order to obtain reliable subcontractor and vendor proposals. While we as the design-builder incurs additional risk for performing work prior to formal Work Authorization, the City can receive the reward of reduced time for delivery.

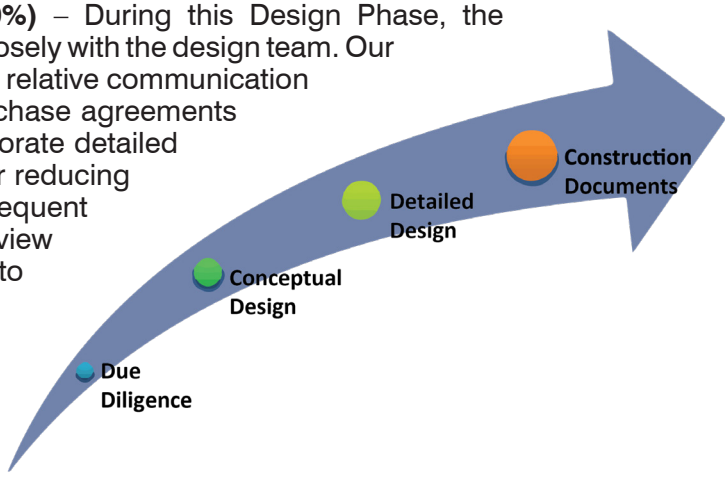
These high priority, time-sensitive projects require a high level of communication throughout the process to improve efficiency. The Cardinal Contractors, Inc members have established an office within Calvin Giordano & Associates (CGA) West Palm Beach facility. We have found the fact that having our designers and constructors cohabitate in the same office in West Palm Beach, FL to be an advantage in delivering the necessary attention for success.

Major long lead items such as process and electrical equipment are ordered immediately upon shop drawing approval so that detailed submittal information can be incorporated into the design phase. This improves the accuracy of the design AND reduces the overall project delivery schedule.

DESIGN PHASE DELIVERABLES

Efficiency and communication are established through weekly meetings where all aspects of the project are tracked and logged to measure and maintain performance throughout both design and construction. During all of the following phases, periodic meetings and constant communication take place, insuring all items arising from the design-build process are reviewed and incorporated.

DETAILED CONCEPTUAL DESIGN PHASE (60%) – During this Design Phase, the Design-Build Manager and Design Manager work closely with the design team. Our cohabitation at the offices of CGA ensures constant relative communication between the parties. We typically have issued purchase agreements for the various components and are able to incorporate detailed vendor submittal information into the design further reducing the project time requirement by eliminating subsequent review times. The detailed conceptual Design Review Stage is used to ensure that all parties agree to the developing plans associated with the Work Authorization's scope. This is the final opportunity for all parties to make changes in scope with minimal cost impacts.



After the Review we begin placing orders for the balance of the materials, as well as any outstanding subcontracts. If any changes to scope that would significantly impact costs, we provide feedback on these anticipated impacts — either price increases or decreases — and upon concurrence, incorporate the change into the design. The plans will provide sufficient detail to convey the design intent to the City and Program Manager. The City and Program Manager reviews the set and prepares a set of summary comments corresponding to the review of the plans. The detailed conceptual phase comments will be incorporated into the Permit level plans.

PERMIT LEVEL DESIGN DOCUMENT PHASE (90%) – One of the key elements in any project is developing design documents to a sufficiency necessary to convey to the various permitting agencies the intent of the project. These agencies include the Florida Department of Environmental Protection (FDEP), Palm Beach County Health department, and the City of Riviera Beach Building department. All major decisions should be made at this time. Supporting calculations are prepared. Depending upon the size and complexity of the Work Authorization, it is at this stage where we begin receiving detailed submittal drawings from the balance of suppliers, as well as subcontractors. Any approved changes occurring in the design from the conceptual phase are incorporated. At this time any final outstanding details on the scope are addressed. Plans are submitted to the City and the Program Manager for review, and a set of design comments are generated, with final details to be incorporated into the construction Plans. At the completion of this phase, comments from all parties are incorporated.

CONSTRUCTION LEVEL DOCUMENT GENERATION – There should be little change from the permitting Plans. The permitting design review comments are incorporated into the construction documents, as well as any modification required for the various permitting agencies.

PRE-CONSTRUCTION SERVICES PHASE – Pre-Construction Services is the phase where Shop Drawings and all outstanding vendor supplied information is reviewed against the Construction Documents. The reviewed documents are then sent to the City and the Program Manager for review and comment. Coordination Meetings are scheduled, the material for the Technical Manual is collected and assembled, then distributed for review and comment.

CONSTRUCTION PHASE – The beginning of the construction phase is concurrent with portions of the design phase. On smaller Work Authorizations this may occur after the permitting design stage, and on larger Work Authorization it will occur immediately after the construction document phase. Many items such as structure excavation, concrete, structural steel erection, etc. can begin in the early in the project. These are work activities that typically are the most time intensive, but require relatively little coordination with any outstanding issue currently in the design such as the process equipment, piping, instrumentation or electrical.

PROJECT CLOSE OUT – Many permitting agencies require the submission of Record Documents to formally close out any outstanding permits for construction. During construction we are continually communicating with our design partner. They are monitoring our activities through internal meetings, telephone calls, site visits, and reviews of project documentation to assure that the agreed upon design intent is being met. As part of this process they, as well as we, are recording information into the design documents for final submission to those permit agencies for project close out.

As part of our desire to continually improve and provide value to the City there are several activities that we would like to work with the parties to implement on this phase. Most noticeably there are certain services such as laser scanning of facilities to provide 3D models that we believe would be highly beneficial to the City and their long term program management. Our Surveying and Mapping staff can now scan virtually anything in half the time of conventional methods, with a level of detail not available before. The ScanStation can take a virtual, detailed snapshot of a site including elevated mechanical piping, process equipment, building walls and ceilings, or areas that were previously difficult to access with traditional survey techniques. The ScanStation collects millions of data points of all items in a 360° horizontal and 270° vertical field of view, allowing a full field of view. The ScanStation captures all the items at once in a permanent record that can be filed, including hundreds of high quality photos, and graphics or animations, from 3D to virtual walk-throughs of sites.

PROJECT CONTROLS

The Design-Build Team understands the inherent value and need of project controls to deliver the proposed work timely, within budget, and to the level of quality required.

SCHEDULE CONTROL

Working closely with the staff of Riviera Beach and the Program Manager, we will develop and maintain a fully integrated project schedule for each Work Authorization. Each major activity of the design-build process, such as engineering, procurement, construction, startup, commissioning, and performance testing, will have detailed activities and milestones. Each team member is made aware of the milestones, their dependency, and the importance of proactively working to those milestones.

We typically utilize Primavera System P6 software to develop and maintain our schedules, however we have the ability to utilize any system that may be more beneficial to the City.

Our schedule details out the activities and the time allotted to complete, as well as their interdependency and clearly defines the steps required to complete the individual Work Authorizations. The Construction Manager monitors the schedule on a weekly basis and incorporates any changes with the team for each individual Work Authorization. The Design-Build Manager monitors not only the schedules of the individual Work Authorizations, but also how they interact into the overall project.

If we identify any slippage in the project schedule, we implement recovery measures such as assigning additional labor, extending daily working hours, extending weekly working time, or obtaining additional subcontracting staff as is necessary.

COST CONTROL

We implement a project specific cost control system to manage the project costs during the contract. The system typically includes:

- Value engineering and constructability reviews during the design.
- Detailed design that involves the construction and operations staff.
- Competitive procurement of material and subcontractors for each work authorization.
- Coordination of procurement and the design during all phases of the project.
- Coordinating engineering, operations integrations, and ease of maintenance with construction.

An inherent part of our cost control is successful estimating. CCI has a long history as a general contractor in the water/wastewater industry. A large portion of our annual income is from competitively bid projects in the municipal industry. As such, we have continual exposure to the market changes as they occur. We have a professional estimating staff experienced at performing take-offs, estimating labor and obtaining vendor and subcontractor proposal.

We utilize estimating software which provides detailed, systematic, and efficient approach to cost estimating. Additionally, our Design-Build Manager provides oversight of the estimating process to optimize the accuracy of our estimates with the current market conditions.

Maintaining clear records of possible changes in the work are an important component of cost control as well as the project delivery. We utilize a series of procedures for keeping accurate records of this information. While the specific forms vary based upon the needs of the owner it is generally a three tier system to allow for quick flow of information on changes while maintaining a clear record.

- Field changes are used to document minor changes, which do not materially affect the project budget, schedule, or scope. These are changes that occur from the documents issued for construction, and may be initiated due to engineering, procurement, construction, maintenance, etc. These changes may include sketches or drawings that will be incorporated into the final record drawings.
- Field Modifications are used to document requests for changes which will impact the project budget, schedule or scope after the documents are issued for construction. These modification requests are shared with all members of the team, and are typically initiated by owners or permit agencies. The Design-Build Team does not initiate a field modification request except due to a change in scope, or conditions.
- Change orders are the formal vehicle for initiating a change into the project. It may represent one field modification or several smaller ones. Change orders are not effective unless approved by both Palm Beach County and Cardinal Contractors.

QUALITY ASSURANCE/QUALITY CONTROL

Quality is a definable distinguishable product of the CCI Design-Build Team. We consistently meet or exceed the requirements of the industry standards, and the expectations of the clients that we work with. As part of that commitment to quality we continually strive to provide a better product for the same cost, or the same end product for a better cost. To accomplish this we work as a team to implement specific QA/QC procedures during the course of the project. During the design they include:

- Continuous QC by the Design Manager throughout execution of the project.
- Continuous coordination with and input from the Design-Build Manager.
- Continuous coordination with and input from the Construction Coordinator on the specific Work Authorizations.
- QC review by the design team at various milestones as assigned and scheduled for each work activity.
- Design Managers confirmation that the design QA/QC process is being followed.
- Documentation by the Design Manager that QC reviews were completed.
- Schedule of QA/QC reviews
- Design team members check work products for errors and omissions throughout the project.
- Design Manager checks the work product including calculations as necessary.
- Design Manager and the Design-Build Manager reviews, comments, and checks for incorporation and concurrence.
- Sub-consultants are responsible for the quality of the work they produce. The Design of Record verifies that each sub-consultant has complied with the level of Quality required for this project.

QUALITY IS AN INHERENT PART OF OUR WORK

During construction, we incorporate the level of quality of equipment, materials and workmanship required by the project. Quality Assurance is the administrative process by which we delineate, specify, and incorporate the required level of quality into each component of the project. Quality Control involves the means and methods, including inspections and testing, that are performed on those components.

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Typical Quality Assurance (QA) activities include the following and are the responsibility of the Construction Coordinator:

- Generation, submission, and review of submittals (shop drawings, samples. etc.).
- Subcontracting and purchasing strategies, including scopes of work definitions.
- Project staffing requirements (management, administrative, supervision and labor).
- Information processing procedures (communication, document control, approval procedures, etc.).
- Procedures for submittal drawing issuance to the field.
- Mobilization plans including access maps and material storage areas.
- Requirements for temporary utilities and site services.
- Construction equipment requirements and durations.
- Planning for equipment and systems acceptance and performance testing.
- Other procedures specific to construction type, complexity and duration.

Typical Quality Control (QC) activities include the following and are the responsibility of the Construction Manager:

- A four-step inspection process to verify compliance of each component of the project with the project plans and specifications and the QA/QC Plan.
  - Preparatory Inspection – review the extent of the work with the appropriate Trade Foreman; confirm that QA items are complete, such as approved submittals, RFIs answered, etc.
  - Initial Inspection – after an initial representative portion of the work is complete, review that portion in detail to verify that it meets the specified standards.
  - Follow-Up Inspections – continually review the work as it progresses to verify a consistent level of quality.
  - Close-Out Inspections – follow up at 95% completion and generate a punch list to identify discrepancies in the work or issues that must be corrected. As discrepancies are corrected, inspect and process them off of the Punch List.
- Third party testing and inspection services during the Follow-Up Inspections that may be required such as:
  - Concrete Strength testing by cylinder method.
  - Concrete strength testing by other means as required.
  - Observance and compaction testing of backfill materials.
  - Subgrade inspections and testing prior to structural placements.
  - Welding tests if required.
- In-house inspections and testing services such as:
  - Items listed on the “Statement of Special Inspections” for the Engineer of Record during plan approval.
  - City/ County Code Enforcement Inspections.
  - Pipeline integrity and performance tests.

The Design Team will make periodic observations of the construction to verify conformance of the project with the design documents. Our Site Construction Manager will maintain complete daily records in the form of diaries, logs, and photographs. We will incorporate the data into our monthly construction reports. We maintain a photographic album that documents construction progress from mobilization to substantial completion, start-up, and final acceptance.

SAFETY

The CCI Design-Build Team recognizes the inherent risks and dangers associated not only in construction, but also the unique aspects associated with water and wastewater treatment facilities. These risks are present for not only our staff and workers, but also for staff of Palm Beach County, visitors to the site, and the general public at large. Properly recognizing these risks and taking steps to proactively eliminate or reduce them is an inherent part of the design-build process.

From the moment that our team first steps onto any site to review potential work we are identifying and evaluating potential risks to the stakeholders, and evaluating ways to minimize them. This commitment is carried through from our estimating and costing evaluations all the way through to final lose out of the project.

The design-build process allows us the unique ability to identify many of these risks early on, and to bring in our team members such as Construction Managers, and safety supervisors to address during the design phase. As a team we design the work to minimize the exposure of all parties while maximizing our effectiveness. Many of the items that we address include:

- Disinfection techniques of piping and structures to prevent the exposure of the general public from harmful pathogens that may be present.
- Depths of excavations, and methods of protection for not only the workers, but for nearby infrastructure.
- Potential for the release of harmful gases or nuisance odors during the course of the work.

As we begin construction operations on each Work Authorization, our Construction Coordinator will take the lead in developing a site specific safety plan to address all of the risks that we anticipate encountering during the course construction. This plan will include the construction specific items such as fall protection, confined space, hazardous communication and other required OSHA information. We additionally address the specific site concerns including the following.

- Does any proposed subcontractor need special training to work onsite?
- Will any of the Delivery drivers need special safety gear, equipment or training to deliver?
- Is the site secure? If Not what needs to be done?
- Does the work involve anything special that might affect the owner's personnel? Have their safety managers been advised of these new risks?

As the entity ultimately responsible for the safety in our work zone our Construction Manager takes the lead role in recognizing the day to day risks associated with the work, and addressing those in accordance to the site specific safety plan. They are trained to conduct daily safety inspection, and our corporate staff conducts regular audits of the site. Anyone not complying with the site specific safety requirements will required to leave the work zone.

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1"=20'

FLORIDA EAST COAST RAILROAD

ROW / PROPERTY LINE

GATE

WORK AREA 1:
RETROFIT EXISTING LIME
SLURRY DELIVERY SYSTEM

RETROFIT EXISTING LIME SYSTEM:
PROPOSED SLURRY TANK
(DIMENSIONS TBD)

AMMONIA TANKS

SOFTENER UNIT No. 1
3.5 MGD

SOFTENER UNIT No. 2
6.5 MGD

SOFTENER UNIT No. 3
7.5 MGD

CHEMICAL FEED AND STORAGE BUILDING No. 1

CHEMICAL FEED AERATION AND SLUDGE DEWATERING BUILDING

SOFTENER UNIT No. 1:
PROPOSED CO2 INJECTION
FEED SYSTEM A

SOFTENER UNIT No. 2:
PROPOSED CO2 INJECTION
FEED SYSTEM B

SOFTENER UNIT No. 3:
PROPOSED CO2 INJECTION
FEED SYSTEM C

LABORATORY AND PROCESS CONTROL BUILDING

FILTER BUILDING
FILTER No. 1 TO No. 8

FILTER BUILDING
FILTER No. 9 TO No. 16

WATER STORAGE TANK AND AIR STRIPPER SYSTEM

EMERGENCY GENERATOR AND ELECTRICAL MCC ROOM

TRANSFORMER VAULT

WORK AREA 2:
ELECTRICAL SYSTEM
MODIFICATION

VALVE PIT No. 1

PROPOSED CO2 STORAGE SYSTEM

GRIT BUCKET

GRIT CLASSIFIER

PROPOSED LIME FEED SYSTEM

BOLLARD (TYP.)

14'

43'

16'

20'

SILO 2

SILO 1

PUMP STATION No. 1

SLUDGE THICKENER TANK

WELL No. 4

WELL No. 5

MAINTENANCE SHOP

ADMINISTRATIVE BUILDING

WEST BLUE HERON BLVD

NOTES:
1. LOCATION OF PROPOSED LIME FEED SYSTEM, CO2 STORAGE TANK AND INJECTION FEED PADS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. THE LOCATION OF EXISTING PIPING AND APPURTENANCES WILL BE EVALUATED DURING DETAILED DESIGN, TO DETERMINE THE PROPOSED LOCATION OF THE EQUIPMENT PAD.

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WATER TREATMENT PLANT IMPROVEMENTS
RIVIERA BEACH UTILTY DISTRICT

RIVIERA BEACH, FLORIDA

PROPOSED SITE PLAN

DATE: 03-20-2020

SCALE: 1" = 20'

PROJECT No: 20-3546

SHEET: EX-1

File Name: P:\Projects\2020\20-3546 Riviera Beach WTP Improvements (DB)\CADD Files\Drawings\20-3546 - Riviera Beach WTP Proposed.dwg - (Plotted by: Lee Rowbotham on Thursday, April 9, 2020 5:31:11 PM)


GRAPHIC SCALE
0 10 20 40
(IN FEET)
1"=20'
FLORIDA EAST COAST RAILROAD
ROW / PROPERTY LINE
GATE
WORK AREA 1:
RETROFIT EXISTING LIME SLURRY DELIVERY SYSTEM
RETROFIT EXISTING LIME SYSTEM:
PROPOSED SLURRY TANK (DIMENSIONS TBD)
PROPOSED CO2 STORAGE SYSTEM
GRIT BUCKET
GRIT CLASSIFIER
PROPOSED LIME FEED SYSTEM
BOLLARD (TYP.)
SILO 2
SILO 1
AMMONIA TANKS
SOFTENER UNIT No. 1 3.5 MGD
SOFTENER UNIT No. 2 6.5 MGD
SOFTENER UNIT No. 3 7.5 MGD
CHEMICAL FEED AND STORAGE BUILDING No. 1
CHEMICAL FEED AERATION AND SLUDGE DEWATERING BUILDING
WELL No. 5
MAINTENANCE SHOP
SOFTENER UNIT No. 1:
PROPOSED CO2 INJECTION FEED SYSTEM A
SOFTENER UNIT No. 2:
PROPOSED CO2 INJECTION FEED SYSTEM B
SOFTENER UNIT No. 3:
PROPOSED CO2 INJECTION FEED SYSTEM C
WELL No. 4
LABORATORY AND PROCESS CONTROL BUILDING
FILTER BUILDING FILTER No. 1 TO No. 8
FILTER BUILDING FILTER No. 9 TO No. 16
WATER STORAGE TANK AND AIR STRIPPER SYSTEM
EMERGENCY GENERATOR AND ELECTRICAL MCC ROOM
PUMP STATION No. 1
SLUDGE THICKENER TANK
TRANSFORMER VAULT
VALVE PIT No. 1
WORK AREA 2:
ELECTRICAL SYSTEM MODIFICATION
ACCESS AND DELIVERY PLAN BASED ON A CHEMICAL DELIVERY TRUCK
ADMINISTRATIVE BUILDING
WEST BLUE HERON BLVD
ROW / PROPERTY LINE
7.51
33.01
2.99
25.49
0.00
2.99
12.50
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CHEMICAL DELIVERY TRUCK

feet

Tractor Width	: 8.01	Lock to Lock Time	: 6.0
Trailer Width	: 8.01	Steering Angle	: 20.3
Tractor Track	: 8.01	Articulating Angle	: 70.0
Trailer Track	: 8.01		

NOTES:
1. LOCATION OF PROPOSED LIME FEED SYSTEM, CO2 STORAGE TANK AND INJECTION FEED PADS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY.
2. THE LOCATION OF EXISTING PIPING AND APPURTENANCES WILL BE EVALUATED DURING DETAILED DESIGN, TO DETERMINE THE PROPOSED LOCATION OF THE EQUIPMENT PAD.

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WATER TREATMENT PLANT IMPROVEMENTS
RIVIERA BEACH UTILITY DISTRICT

RIVIERA BEACH, FLORIDA

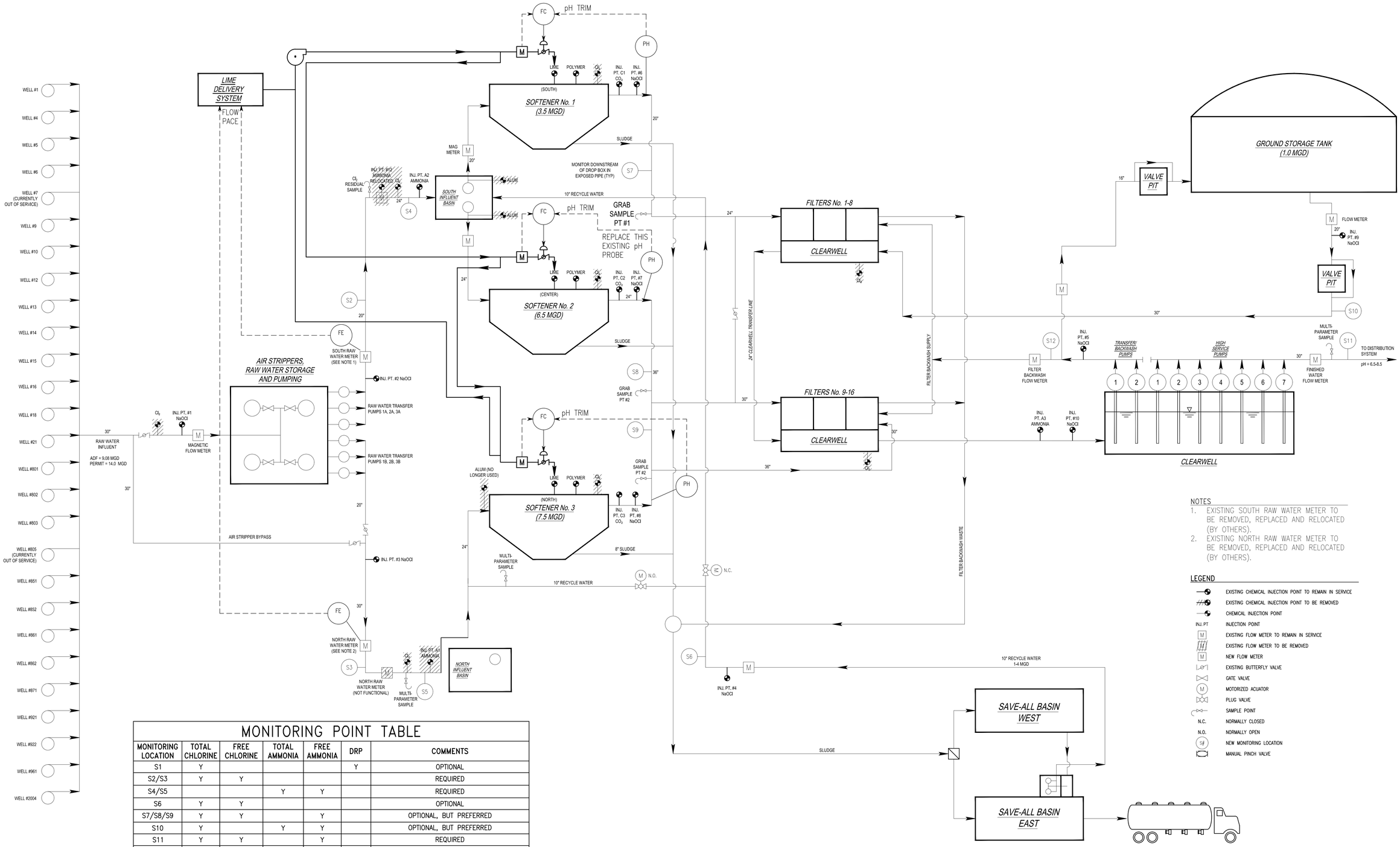
ACCESS AND CHEMICAL DELIVERY PLAN

DATE: 03-20-2020

SCALE: 1" = 20'

PROJECT No: 20-3546

SHEET: EX-3



MONITORING POINT TABLE

MONITORING LOCATION	TOTAL CHLORINE	FREE CHLORINE	TOTAL AMMONIA	FREE AMMONIA	DRP	COMMENTS
S1	Y				Y	OPTIONAL
S2/S3	Y	Y				REQUIRED
S4/S5			Y	Y		REQUIRED
S6	Y	Y				OPTIONAL
S7/S8/S9	Y	Y		Y		OPTIONAL, BUT PREFERRED
S10	Y		Y	Y		OPTIONAL, BUT PREFERRED
S11	Y	Y		Y		REQUIRED
12		Y				OPTIONAL, BUT PREFERRED

NOTES
1. EXISTING SOUTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).
2. EXISTING NORTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).

LEGEND
- EXISTING CHEMICAL INJECTION POINT TO REMAIN IN SERVICE
- EXISTING CHEMICAL INJECTION POINT TO BE REMOVED
- CHEMICAL INJECTION POINT
- INJ. PT — INJECTION POINT
- EXISTING FLOW METER TO REMAIN IN SERVICE
- EXISTING FLOW METER TO BE REMOVED
- NEW FLOW METER
- EXISTING BUTTERFLY VALVE
- GATE VALVE
- MOTORIZED ACUATOR
- PLUG VALVE
- SAMPLE POINT
- N.C. — NORMALLY CLOSED
- N.O. — NORMALLY OPEN
- NEW MONITORING LOCATION
- MANUAL PINCH VALVE

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–	–	-	–

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WATER TREATMENT PLANT IMPROVEMENTS
RIVIERA BEACH UTILTY DISTRICT

RIVIERA BEACH, FLORIDA

PFD - RDP SYSTEM

JAMES A. HART, P.E.
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 65420
DATE: 03-20-2020

SCALE ####
PROJECT No 20-3546

SHEET EX-2A

File Name: \\tlfls01\project\Projects\2020\203546 Riviera Beach Wtp Improvements (dib)\cadd Files\Drawings\20-3546 – PFD.dwg – (Plotted by: James Hart on Friday, March 27, 2020 4:04:09 PM)


SP
PLC
SC
SET POINT (SP) WILL CONTROL EITHER THE CONVEYOR SPEED, WATER FLOW, OR BOTH, DEPENDING ON THE CONDITIONS. SP WILL BE BOTH LOCAL AND REMOTE.
LIME FEED CONVEYOR
WATER
LIME DELIVERY SYSTEM
DILUTION WATER
FLUSH WATER
SLURRY TANK
FLUSH DRAIN
SOFTENER No. 1 (3.5 MGD)
SOFTENER No. 2 (6.5 MGD)
SOFTENER No. 3 (7.5 MGD)
SOUTH INFLUENT BASIN
NORTH INFLUENT BASIN
AIR STRIPPERS, RAW WATER STORAGE AND PUMPING
RAW WATER TRANSFER PUMPS 1A, 2A, 3A
RAW WATER TRANSFER PUMPS 1B, 2B, 3B
AIR STRIPPER BYPASS
RAW WATER INFLUENT
ADF = 9.08 MGD
PERMIT = 14.0 MGD
MAGNETIC FLOW METER
SOUTH RAW WATER METER (SEE NOTE 1)
NORTH RAW WATER METER (SEE NOTE 2)
NORTH RAW WATER METER (NOT FUNCTIONAL)
MULTI-PARAMETER SAMPLE
REPLACE THE EXISTING pH PROBE
GRAB SAMPLE PT #1
GRAB SAMPLE PT #2
MONITOR DOWNSTREAM OF DROP BOX IN EXPOSED PIPE (TYP)
10" RECYCLE WATER
FILTERS No. 1-8
FILTERS No. 9-16
CLEARWELL
24" CLEARWELL TRANSFER LINE
FILTER BACKWASH SUPPLY
FILTER BACKWASH WASTE
GROUND STORAGE TANK (1.0 MGD)
VALVE PIT
FLOW METER
TRANSFER/ BACKWASH PUMPS
HIGH SERVICE PUMPS
FILTER BACKWASH FLOW METER
FINISHED WATER FLOW METER
TO DISTRIBUTION SYSTEM
pH = 6.5-8.5
10" RECYCLE WATER 1-4 MGD
SLUDGE
SAVE-ALL BASIN WEST
SAVE-ALL BASIN EAST
WELL #1
WELL #4
WELL #5
WELL #6
WELL #7 (CURRENTLY OUT OF SERVICE)
WELL #9
WELL #10
WELL #12
WELL #13
WELL #14
WELL #15
WELL #16
WELL #18
WELL #21
WELL #801
WELL #802
WELL #803
WELL #805 (CURRENTLY OUT OF SERVICE)
WELL #851
WELL #852
WELL #861
WELL #862
WELL #871
WELL #921
WELL #922
WELL #961
WELL #2004

1. PHASE 1 – MODIFY EXISTING LIME FEED SYSTEM TO HAVE THE ABILITY TO GRAVITY FEED SOFTENER No. 3. EXTEND FEED LINE OF SOFTENER No. 2 TO CONNECT TO SOFTENER No. 3 AND INSTALL A VALVE NEAR THE NEW SOFTENER No. 3 INTERCONNECTION TO CONTROL WHICH SOFTENER IS FED.

2. PHASE 2 – INSTALL PUMPING SYSTEM TO FEED EACH SOFTENER, INSTALL A SLURRY TANK NORTH OF THE SOUTH CHEMICAL BUILDING, CONNECT EXISTING SPLITTER BOX TO DISCHARGE BY GRAVITY INTO THE SLURRY BOX. INSTALL PUPMPS, RIGID HOSES AND PINCH VALVES CONNECTED INTO EACH SOFTENER UNIT. INSTALL A pH PROBE AT SOFTENER No. 3 AND REPLACE THE pH PROBE AT SOFTENER No. 1, INCLUDING ADDITIONAL MODIFICATIONS TO ALLOW CONTROLLED DELIVERY.

MONITORING POINT TABLE

MONITORING LOCATION	TOTAL CHLORINE	FREE CHLORINE	TOTAL AMMONIA	FREE AMMONIA	DRP	COMMENTS
S1	Y				Y	OPTIONAL
S2/S3	Y	Y				REQUIRED
S4/S5			Y	Y		REQUIRED
S6	Y	Y				OPTIONAL
S7/S8/S9	Y	Y		Y		OPTIONAL, BUT PREFERRED
S10	Y		Y	Y		OPTIONAL, BUT PREFERRED
S11	Y	Y		Y		REQUIRED
12		Y				OPTIONAL, BUT PREFERRED

NOTES
1. EXISTING SOUTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).
2. EXISTING NORTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).

LEGEND
- EXISTING CHEMICAL INJECTION POINT TO REMAIN IN SERVICE
- EXISTING CHEMICAL INJECTION POINT TO BE REMOVED
- CHEMICAL INJECTION POINT
- INJ. PT — INJECTION POINT
- EXISTING FLOW METER TO REMAIN IN SERVICE
- EXISTING FLOW METER TO BE REMOVED
- NEW FLOW METER
- EXISTING BUTTERFLY VALVE
- GATE VALVE
- MOTORIZED ACUATOR
- PLUG VALVE
- SAMPLE POINT
- N.C. — NORMALLY CLOSED
- N.O. — NORMALLY OPEN
- NEW MONITORING LOCATION
- MANUAL PINCH VALVE

CONCEPTUAL

NO	DATE	REVISION	BY	NO	DATE	REVISION	BY
–	–	-	–				

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™
1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316
Phone: 954.921.7781 • Fax: 954.921.8807
Certificate of Authorization 514

WATER TREATMENT PLANT IMPROVEMENTS
RIVIERA BEACH UTILTY DISTRICT

RIVIERA BEACH, FLORIDA

PFD - RETROFIT

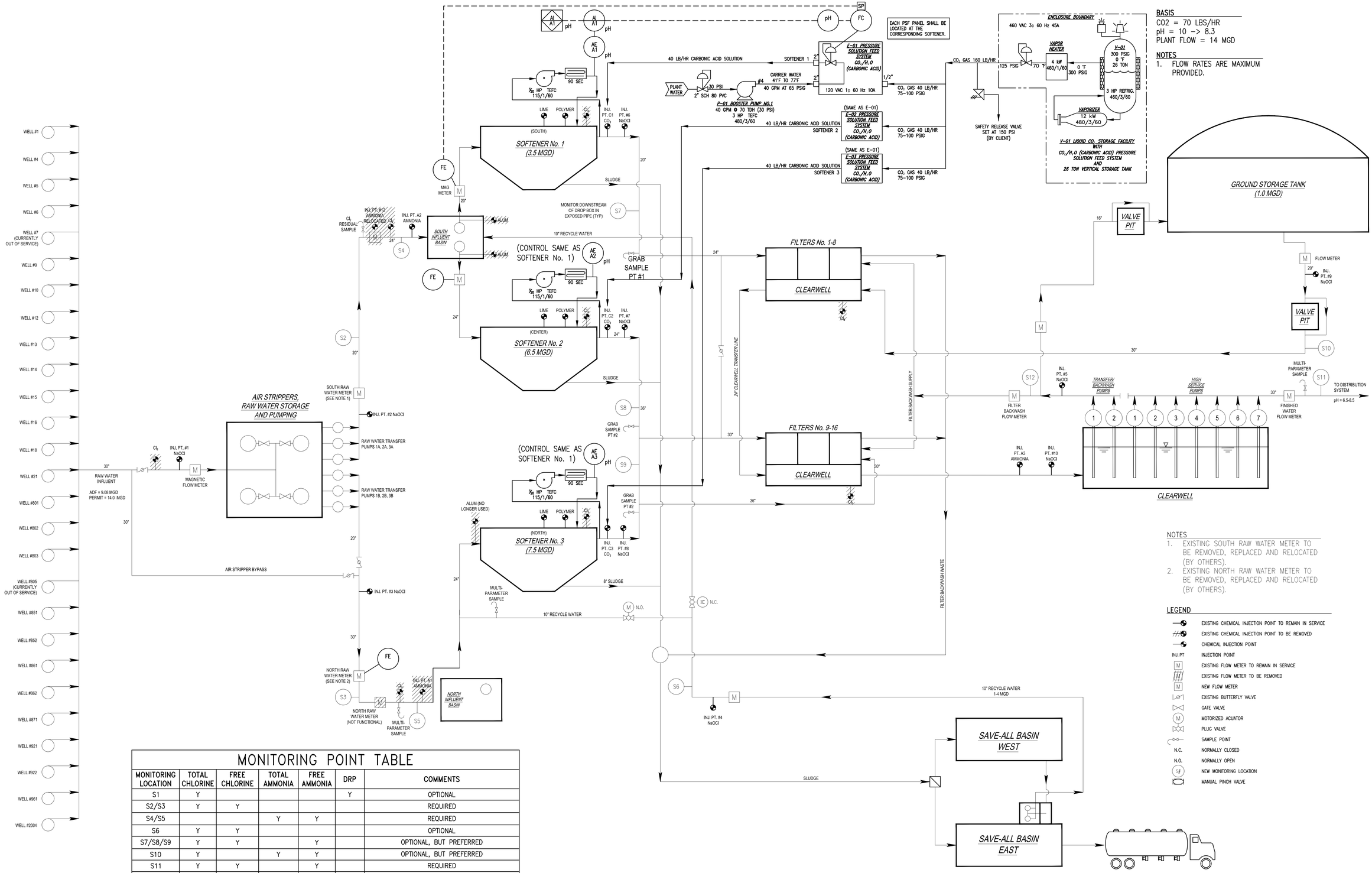
JAMES A. HART, P.E.
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 65420

DATE: 03-20-2020

SCALE ####

PROJECT No 20-3546

SHEET EX-2B



BASIS

CO2 = 70 LBS/HR
pH = 10 –> 8.3
PLANT FLOW = 14 MGD

NOTES

1. FLOW RATES ARE MAXIMUM PROVIDED.

MONITORING POINT TABLE						
MONITORING LOCATION	TOTAL CHLORINE	FREE CHLORINE	TOTAL AMMONIA	FREE AMMONIA	DRP	COMMENTS
S1	Y				Y	OPTIONAL
S2/S3	Y	Y				REQUIRED
S4/S5			Y	Y		REQUIRED
S6	Y	Y				OPTIONAL
S7/S8/S9	Y	Y		Y		OPTIONAL, BUT PREFERRED
S10	Y		Y	Y		OPTIONAL, BUT PREFERRED
S11	Y	Y		Y		REQUIRED
12		Y				OPTIONAL, BUT PREFERRED

NOTES

1. EXISTING SOUTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).
2. EXISTING NORTH RAW WATER METER TO BE REMOVED, REPLACED AND RELOCATED (BY OTHERS).

LEGEND

- EXISTING CHEMICAL INJECTION POINT TO REMAIN IN SERVICE
- EXISTING CHEMICAL INJECTION POINT TO BE REMOVED
- CHEMICAL INJECTION POINT
- INJ. PT — INJECTION POINT
- M — EXISTING FLOW METER TO REMAIN IN SERVICE
- M — EXISTING FLOW METER TO BE REMOVED
- M — NEW FLOW METER
- EXISTING BUTTERFLY VALVE
- GATE VALVE
- M — MOTORIZED ACUATOR
- PLUG VALVE
- SAMPLE POINT
- N.C. — NORMALLY CLOSED
- N.O. — NORMALLY OPEN
- S# — NEW MONITORING LOCATION
- MANUAL PINCH VALVE

CONCEPTUAL

NO	DATE	REVISION	BY
–	–	-	–

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS℠
1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316
Phone: 954.921.7781 • Fax: 954.921.8807
Certificate of Authorization 514

WATER TREATMENT PLANT IMPROVEMENTS
RIVIERA BEACH UTILTY DISTRICT

RIVIERA BEACH, FLORIDA

PFD - CO2 SYSTEM

JAMES A. HART, P.E.
STATE OF FLORIDA PROFESSIONAL ENGINEER
LICENSE No. 65420
DATE: 03-20-2020

SCALE ####
PROJECT No 20-3546

SHEET EX-2C

TAB H

disputes, litigation and defaults

Primoris

July 8, 2020

2051 MLK Blvd, Suite #310
Riviera Beach, FL 33404

RE: **CITY OF RIVIERA BEACH**
RFQ NO. 999-20-2
TAB H - Disputes

Dear Sir or Madam:

This is to certify and explain the current status of Cardinal Contractors, Inc. litigation.

- Cardinal Contractors, Inc. is not involved in any litigation in the state of Florida.
- Cardinal Contractors, Inc. has one (1) pending action Texas where Cardinal Contractors, Inc. is the plaintiff. The issue pertains to a project from a contract obtained in 2014 where Cardinal was a subcontractor to a General Contractor.

If you have any questions, feel free to call me at (561) 809-1285.

Respectfully,

Cardinal Contractors, Inc.

Michael Brandao
Vice President

TAB I

required forms

CITY OF RIVIERA BEACH
600 WEST BLUE HERON BLVD., SUITE 140
RIVIERA BEACH, FL 33404

PLAN HOLDER INFORMATION SHEET

EMAIL RLITTLE@RIVIERABEACH.ORG

PROSPECTIVE PROPOSER INFORMATION SHEET
RFQ #999-20-2

PLEASE COMPLETE AND EMAIL THIS DOCUMENT TO THE PROCUREMENT DEPARTMENT. YOUR INFORMATION WILL BE ADDED TO THE CURRENT PLAN HOLDER LIST AND HELPS TO INSURE RECEIPT OF CHANGES OR ADDITIONAL INFORMATION.

PROCUREMENT DEPARTMENT: OFFICE 561-845-4180

Contact Person
Michael Brandao

Business Name
Cardinal Contractors, Inc.

Business Address
13794 NW 4th Street, Suite 200

Business City, State, Zip
Sunrise, FL 33325

Email Address:
mbrandao@prim.com

Business Phone # 954-587-0520 Business Fax # 954-337-0431

DRUG FREE WORKPLACE

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. 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.

2. 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.

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

4. 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.

5. 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 form complies fully with the above requirements.

THIS CERTIFICATION is submitted by Michael Brandao (INDIVIDUAL'S NAME) the

Vice President (TITLE/POSITION WITH COMPANY/VENDOR) Of Cardinal Contractors, Inc. (NAME OF COMPANY/VENDOR)

who does hereby certify that said Company/Vendor has implemented a drug free workplace program which meets the requirements of Section 287.087, Florida Statutes, which are identified in numbers (1) through (6) above.

SIGNATURE

July 8, 2020
DATE

CITY OF RIVIERA BEACH

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, Florida Statutes (1995), you are hereby notified that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases or real property to a public entity, may not be awarded or perform work as a Proposer , supplier, sub Proposer , or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 [F.S.] for CATEGORY TWO [$10,000.00] for a period of 36 months from the date of being placed on the convicted vendor list.

Acknowledged by:

Cardinal Contractors, Inc.

Firm Name

Signature

Michael Brandao Vice President

Name & Title (Print or Type)

TRUTH IN NEGOTIATIONS CERTIFICATE

This is to certify that, to best of my knowledge and belief, the cost or pricing data submitted, either actually or by specific identification in writing, to the Contracting Officer or the Contracting Officer's representative in support of City of Riviera Beach

Water Treatment Plant and Utility System Chemical Feed System Improvements, RFQ # 999-20-2 *

are accurate, complete, and current as of July 8, 2020 **

This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between proposer and the City that are part of the proposal.

FIRM: Cardinal Contractors, Inc.

SIGNATURE: _____

NAME: Michael Brandao

TITLE: Vice President

DATE: July 8, 2020 ***

*Identify the proposal, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., RFQ No.).

** Insert the day, month, and year when price negotiations were concluded and price agreement was reached, of, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price.

*** Insert the day, month, and year of signing, which should be as close to practicable to the date when the price negotiations were concluded and the contract price was agreed to.

SCHEDULE 1
PARTICIPATION FOR M/WBE PROPOSER/PROPOSERS

RFQ TITLE: City of Riviera Beach

RFQ NUMBER: 999-20-2

NAME OF PRIME BIDDER: Cardinal Contractors, Inc.

RFQ OPENING DATE: 07/08/20

CONTACT PERSON: Michael Brandao

TELEPHONE NUMBER: 954-587-0520

EMAIL: mbrandao@prim.com

NAME, ADDRESS & TELEPHONE NUMBER OF MINORITY PROPOSER	TYPE & DESCRIPTION OF WORK TO BE PERFORMED	BLACK	HISPANIC	OTHER	WOMEN
Electron Plus of South Florida 7472 Wentworth Dr Lake Worth 33467-7809 (561) 650-8270	Electrical Contractor	X			
Hillers Electrical Engineering 23257 State Road 7, Suite 100 Boca Raton, Florida 33428 (561) 451-9165	Electrical Engineering			X	
Lakdas/Yolahem Engineering, Inc. 2211 NE 54th St Fort Lauderdale, FL 33308 (954) 771-0630	Structural Engineering			X	
Radise International, L.C. 4152 W Blue Heron Blvd, #1114 Riviera Beach, FL 33404 (561) 841-0103	Geotechnical Engineering			X	
	TOTAL	TBD		TBD	

TOTAL PARTICIPATION: >10 %

TO BE COMPLETED BY PRIME PROPOSER:

RFQ PRICE: TBD

SCHEDULE 2

RFQ NUMBER: 999-20-2
LIASON: _____

LETTER OF INTENT TO PERFORM AS A MINORITY/SUB

TO: Cardinal Contractors, Inc.

The undersigned intends to perform work in connection with the above RFQ as (check one):

___ an individual ✓ a corporation ___ a partnership ___ a joint venture

✓ The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

Electrical, instrumentation and controls design

At the following price/ contract percentage (%): _____

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

Items: Projected Commencement Date: Projected Completion:

0 % of the dollar value of the subcontract will be sublet and/or awarded to non-minority Proposer s and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

Hillers Electrical Engineering, Inc.
(NAME OF MINORITY PROPOSER)

DATE: 7/2/2020

BY: _____
Paul Hillers, President

SCHEDULE 2

RFQ NUMBER: 999-20-2
LIASON: _____

LETTER OF INTENT TO PERFORM AS A MINORITY/SUB

TO: Cardinal Contractors, Inc.

The undersigned intends to perform work in connection with the above RFQ as (check one):

___ an individual ✓ a corporation ___ a partnership ___ a joint venture

✓ The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

Electrical Contractor, wiring, raceways, ductbank, electrical equipment connections

At the following price/ contract percentage (%): _____

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

Items: Projected Commencement Date: Projected Completion:

0 % of the dollar value of the subcontract will be sublet and/or awarded to non-minority Proposer s and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

Electron Plus of Florida LLC
(NAME OF MINORITY PROPOSER)

DATE: 7/2/2020

BY: Vincent Scott

SCHEDULE 2

RFQ NUMBER: 999-20-2
LIASON: _____

LETTER OF INTENT TO PERFORM AS A MINORITY/SUB

TO: Cardinal Contractors, Inc.

The undersigned intends to perform work in connection with the above RFQ as (check one):

___ an individual ✓ a corporation ___ a partnership ___ a joint venture

✓ The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

Structural investigation and design

At the following price/ contract percentage (%): _____

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

Items: Projected Commencement Date: Projected Completion:

0 % of the dollar value of the subcontract will be sublet and/or awarded to non-minority Proposer s and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

Lakdas/Yolahem Engineering, Inc.
(NAME OF MINORITY PROPOSER)

DATE: 7-2-20

BY: _____

SCHEDULE 2

RFQ NUMBER: 999-20-2
LIASON: _____

LETTER OF INTENT TO PERFORM AS A MINORITY/SUB

TO: Cardinal Contractors, Inc.

The undersigned intends to perform work in connection with the above RFQ as (check one):

___ an individual ✓ a corporation ___ a partnership ___ a joint venture

✓ The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

Geotechnical Engineering

At the following price/ contract percentage (%): _____

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

Items: Projected Commencement Date: Projected Completion:

0 % of the dollar value of the subcontract will be sublet and/or awarded to non-minority Proposer s and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

Radise International, L.C.
(NAME OF MINORITY PROPOSER)

DATE: 07/06/20

BY: _____
Gregory Stelmack, P.E.

TAB J

addenda

NOTICE

ADDENDUM NO. ONE (1) JUNE 15, 2020

CITY OF RIVIERA BEACH
RFQ NO. 999-20-2
WATER TREATMENT PLANT AND UTILITY SYSTEM CHEMICAL FEED SYSTEM IMPROVEMENTS

TO ALL PROPOSERS ON THE ABOVE PROJECT: PLEASE NOTE CONTENTS HEREIN AND AFFIX (PASTE OR STAPLE) TO PROPOSAL DOCUMENTS YOU HAVE ON HAND.

The following statements supersede and supplant corresponding items in the above subject proposal as follows:

GENERAL INFORMATION: CURRENT RFQ HAS BEEN REPLACED WITH REVISED RFQ

SPECIFICATION:

PLANSHEETS:

It will be required that Addendum No. 1 be signed in acknowledgment of receipt and that it be attached to the proposal when same is submitted at **11:00 A.M., Wednesday, July 8, 2020** at the office of the City Clerk, 600 W. Blue Heron Boulevard, Suite 140, Riviera Beach, Florida. For information on this BID, please contact:

Rickey Little, Senior Procurement Specialist
2051 MLK Blvd., Suite #310
Riviera Beach, FL 33404
rlittle@rivierabch.com

CARDINAL CONTRACTORS, INC.
NAME OF COMPANY

PROPOSER'S SIGNATURE

DATE: JULY 8, 2020