ENGINEERING SERVICES FOR THE

Colorado Acres RO Water Treatment Plant Renovations

MAY 2020

WEBB COUNTY

PREPARED BY

Kimley»Horn

IWWT52005.2020

Cover Letter

May 22, 2020

WEBB COUNTY PURCHASING DEPARTMENT
1110 WASHINGTON STREET, SUITE 101
LAREDO, TEXAS 78040

RE: ENGINEERING SERVICES FOR THE COLORADO ACRES RO WATER TREATMENT PLANT RENOVATIONS PROJECT - RFQ 2020-010

Dear Evaluation Team,

The County is prioritizing the restoration and expansion of the Colorado Acres Reverse Osmosis Water Plant to serve the Las Lomas community again after five years of closure. The County wants to address issues such as membrane fouling, plant functionality, and accommodating new water sources. Kimley-Horn is ready to partner with the County in this project to increase plant capacity and restore the plant to be fully-functioning again. We commend the County for changes to the RFQ to focus on overall plant performance, as we already planned to offer performance specifications as a part of our approach. As you consider Kimley-Horn as your professional engineering consultant, please keep the following attributes in mind:

LOCAL PRESENCE WITH NATIONAL RESOURCES. Kimley-Horn provides you with national resources of a large firm, and the attention, intention, and care of a small firm. Our survey, architecture, and geotechnical subconsultant partners are located in Webb County. Kimley-Horn staff in our San Antonio and Houston offices will be able to respond to any of the County's needs quickly and effectively. Should you require additional professional services or specific technical expertise, we offer the capacity to shift our resources to meet your needs.

NATIONAL REVERSE OSMOSIS EXPERIENCE. Our proposed team includes experts in design for RO Water Treatment Plants, especially Membrane Process Treatment. With over 30 years of experience working on Reverse Osmosis (RO) Water Treatment Plants, our firm understands the nature of these projects.

BEST VALUE AND INDUSTRY PRACTICES. We are committed to delivering the best value to the County through Reverse Osmosis and Water Treatment best practices. Our design team is not restricted by affiliation with one specific membrane manufacturer, rather we know the benefits of every major membrane brand and can custom pick the right choice for Webb County.

THE RIGHT TEAM. Michael Moriarty will lead Treatment Design and Roger Garza will lead Site Design, making sure both aspects of your project run smoothly. As they work together closely on this project, they will work in the same CADD file and coordinate with each other to maintain efficiency.

We are excited about this opportunity to partner with Webb County and serve the community through this plant expansion. Please contact me directly at 346.888.3892 or Michael.Moriarty@kimley-horn.com to further discuss our qualifications.

Sincerely,

Kimley-Horn and Associates, Inc.

Michael Moriarty, P.E.
Project Manager

Jeff James, P.E.
Vice President

Kimley-Horn acknowledges and accepts both Addendum No. 1 and Addendum No. 2 of this solicitation.

Kimley»Horn

11700 KATY FREEWAY
SUITE 800
HOUSTON, TX 77079
281.597.9300
KIMLEY-HORN.COM

Firm's Overall Experience

Kimley-Horn, founded in 1967, is a full-service engineering, planning, and environmental consulting firm with more than 4,200 employees located 92 offices nationwide. We provide services in water resources, environmental sciences, aviation, ITS, landscape architecture, transit, transportation, urban planning, and land development. Our Texas region has 15 offices with over 800 team members, and our Central Texas offices (Austin, San Antonio, and Houston) have over 260 team members. Our well-established and specialized utilities teams in Texas and firm-wide resources give us the depth of experience in utilities design, specifically in RO Treatment Plant design for public and private clients. As a firm, we have worked on RO treatment plants for over 30 years. Considering how recently RO technology has been available, we offer significant experience.

As a firm, we have designed RO treatment plants for over 30 years.

Team Qualifications

ORGANIZATIONAL CHART

We have selected a team that has the knowledge, relevant experience, and local presence to work with the County on this project. The key tasks below cover all scope items mentioned in the RFQ to make sure our team is serving the County's needs.

DEPUTY PM
Roger Garza, P.E.

PROJECT MANAGER
Michael Moriarty, P.E.

QUALITY ASSURANCE/QUALITY CONTROL MANAGER
Mark Miller, P.E.

RAW WATER SUPPLY
Michael Moriarty, P.E.

HYDROGEOLOGIST
Van Kelley, PG
Intera

MEMBRANE PROCESS & TREATMENT
Lance Littrell, P.E.
Nick Black, P.E.
Jason Lee, P.E.
Michael Moriarty, P.E.
Rhea Dorris, P.E.

STRUCTURAL
John Mischkot, P.E., LEED AP
JQ Engineering

PERMITTING
Raw Water: Jeff James, P.E.
Treatment: Mike Shelton, P.E., AICP
Disposal (Deep Well Injection):
Matt Uliana, PhD, PG (Deep Well)
Intera
Disposal Support: Kyle Kubista, P.E.

SITE CIVIL
Roger Garza, P.E.
Kyle Kubista, P.E.

CPS
Ryan Sowa, P.E.
Mario Valdez, P.E.

GEOTECH
Arturo Barrera, P.E., PMP
Terracon

ELECTRICAL/ PROGRAMMING
John Cleary, P.E.
Richard Guzman, P.E., SEC+, ENV SP
Cleary Zimmerman

ARCHITECTURE
Viviana Frank, FAIA, LEED AP, CNU-A
ABLE City

SURVEY
Wayne Nance, P.E., RPLS
Porres Nance

OUR FIRM'S PRINCIPALS IN TEXAS

Christopher Frysinger, P.E., LEED AP
Glenn Gary, P.E.
Kevin Gaskey, P.E., NCEES
Jeff James, P.E.
Paul McCracken, P.E.
Aaron Nathan, P.E.
Brian Parker, P.E.
Brian Shamburger, P.E.
Rod Swindler, P.E.
Brad Tribble, P.E.
Andy VanLeeuwen, P.E.

Michael Moriarty, P.E.

PROJECT MANAGER

Michael's professional experience includes water supply plant, wastewater treatment plant, and pump station design for a variety of projects in Texas public and private sectors. He has been the lead design engineer for projects focued on designing and optimizing treatment plants and in the design and selection of pumps. Michael has been involved in projects related to reverse osmosis and ground water plants, sanitary lift stations, wastewater treatment plants, and storm water pump stations.

PROFESSIONAL CREDENTIALS

Master of Environmental Engineering, Texas Tech University

Bachelor of Science, Environmental Engineering, Texas Tech University

Professional Engineer in Texas (#129086)

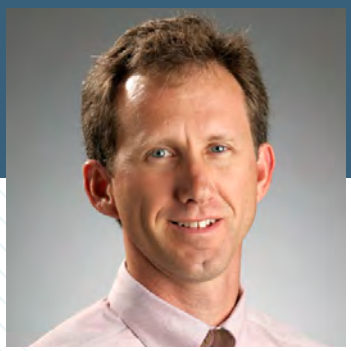
American Public Works Association, Member

Kimley-Horn Treatment Practice Team, Lead Member

RELEVANT EXPERIENCE

- Babcock Ranch RO Plant PER – Babcock Ranch, FL
- West University Place WWTP Master Plan – West University Place, TX
- City of Rhome Water and Wastewater Master Plan – Rhome, TX
- Galveston County WCID 8 Water and Wastewater System Analysis – Santa Fe, TX
- Black Branch WWTP – Porter, TX
- Brazoria County MUD No. 21 WSP Expansion – Pearland, TX*
- Brazoria County MUD No. 21 WSP RO System – Pearland, TX*
- Montgomery County MUD No. 111 WSP – Conroe, TX*
- Montgomery County MUD No. 111 & 157 WWTP – Conroe, TX*
- Fort Bend County MUD No. 131 WWTP Phase II – Alvin, TX*
- Harris County MUD No. 495 WWTP – Houston, TX*
- McCrary Meadows WWTP Phase II – Richmond, TX*
- Uplands WWTP – Simonton, TX*
- Harris County MUD No. 495 On-Site Lift Station – Houston, TX*
- Katy Pointe Lift Station – Houston, TX*
- Barton Woods Lift Station – Conroe, TX*
- TWDC-HHC Lift Station – Conroe, TX*
- Fort Bend Business Park Lift Station No. 1 – Missouri City, TX*
- Porters Mill Lift Station – New Caney, TX*
- Blue Water Lift Station No. 1 – Manvel, TX*
- Sienna Pump Station No. 4 – Missouri City, TX*
- Levee Improvement District No. 14 Storm Water Pump Station Analysis – Sugar Land, TX*

**Work performed prior to joining Kimley-Horn.*



Mark Miller, P.E.

QA/QC

Mark has 33 years of experience with the design, permitting, construction, and operations of water and wastewater systems, including pump stations, treatment plants, and distribution systems. He has been responsible for the design, construction management, and start-up coordination for numerous membrane water treatment plants and conducted pilot studies for various water treatment alternatives and developed preliminary design studies. Mark has strong process design experience for all types of water treatment facilities. He has provided design and construction phase services of several specialty water systems, including ion exchange treatment, filter systems, membrane pilot studies, SCADA system integration, and operational testing of numerous municipal treatment systems.

PROFESSIONAL CREDENTIALS

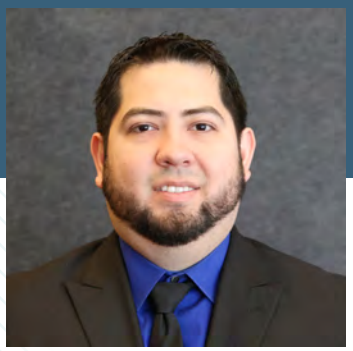
Master of Engineering, Civil Engineering, University of Florida

Bachelor of Science, Ocean Engineering, Florida Institute of Technology

Professional Engineer in Florida (#45320)

RELEVANT EXPERIENCE

- Injection Well Retrofit – Stuart, FL
- Lime Softening Water Treatment Plant Improvements – Stuart, FL
- Tropical Farms 14.0-MGD Brackish Water Treatment Plant Expansion – Martin County, FL
- 5.5-MGD Jensen Beach Brackish Water RO Water Treatment Plant – Jensen Beach, FL
- North Martin County RO Water Treatment Plant and Improvements, 3.56-MGD Treatment Capacity – Martin County Utilities, FL
- Floridan Aquifer Supply Wells for Martin County North RO Plant – Martin County, FL
- Tropical Farms and Jensen Beach RO Water Plant Floridan Well Evaluation – Martin County, FL
- 15.0-MGD Nanofiltration Water Treatment Plant Construction Phase Services – Jupiter, FL
- Anion Exchange Water Treatment Plant – Jupiter, FL
- Finish Water Stabilization (Lime Slurry Injection) to RO Water Treatment Plants and Finish Water Stabilization Corrosion Study – Indian River County, FL
- Membrane Water Treatment Phases I and II – Jupiter, FL
- Bermuda Water Company Water Treatment Services – Devonshire, Bermuda
- Water Treatment Plant No. 11 Membrane Replacement Pilot Study – Palm Beach County, FL
- Miramar RO Water Treatment Plant Expansion, Majestic Group – Hutchinson Island, Jensen Beach, FL
- Waterway Estates Water Treatment Plant Gravity Filter Replacement for Florida Cities Water Company – North Fort Myers, FL



Roger Garza, P.E.

DEPUTY PROJECT MANAGER

Roger is a Project Manager at Kimley-Horn whose focus is land development for public and private sector clients. He has over 10 years of experience and offers extensive project management and engineering design experience on a variety of K-12, retail, commercial, hospitality, and office developments. He has extensive experience in taking projects from initial site feasibility and due diligence through preliminary and final design to construction and final punch lists. Roger has effectively managed projects that involved extensive coordination with architects, sub consultants, general contractors, vendors, and municipal and state permitting authorities. He specializes in healthcare and hospitality projects throughout greater Houston and Texas.

PROFESSIONAL CREDENTIALS

Bachelor of Science, Civil Engineering, Texas A&M University

Professional Engineer in Texas (#118820)

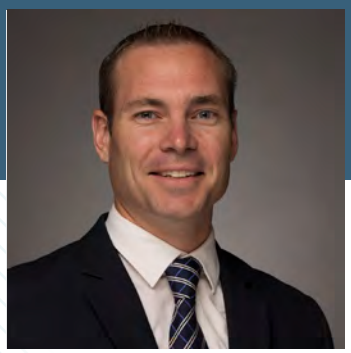
RELEVANT EXPERIENCE

- Main Event, 2 Sites – Humble, TX and Laredo, TX
  Full Site work including – Utilities, Grading, Storm, and Erosion Control
- Cheddar's Restaurants, 2 Sites – Harlingen, TX and Laredo, TX
  Full Site work including – Utilities, Grading, Storm, and Erosion Control
- Baptist St. Anthony Hospital Cancer Center – Amarillo, TX
  Full Site work including – Utilities, Grading, Storm, Floodplain Study, and Erosion Control
- Emerus Emergency Hospital, 6 sites – El Paso, TX (2 sites); Oklahoma City (4 Sites)
  Full Site work including – Utilities, Grading, Storm, Detention Calculations, and Erosion Control
- Rice Village District Renovations (Hopdoddy Burger Bar, Shake Shack, etc.) – Houston, TX
  Full Site work including – Utilities, Grading, Storm, Detention Calculations, and Erosion Control

  Roadway improvements to Amherst Road.
- Saltgrass – Pasadena, TX
  Full Site work including – Utilities, Grading, Storm, Detention Calculations, and Erosion Control
- MedExpress Urgent Care 4 Sites – Pasadena, TX; Katy, TX; Beaumont, TX; Rosenberg, TX
  Full Site work including – Utilities, Grading, Storm, Detention Calculations, and Erosion Control
- Le Meridien Downtown Hotel – Houston, TX
  Full Site work including – Utilities, Grading, Storm, and Erosion Control
- *UISD- Transportation Complex – Laredo, TX
  Full Site work including – Utilities, Grading, Storm, and Erosion Control

  Design of Public Roadway (EG Ranch Road) and Public Utilities with Lift Station
- *UISD- Krueger Field Drainage Improvements and Field Re-Construction – Laredo, TX

**Work performed prior to joining Kimley-Horn.*



Lance Littrell, P.E.

MEMBRANE PROCESS & TREATMENT

Lance has 19 years of experience concentrated in the mechanical arena of the environmental engineering field. His experience includes the design, project management, construction oversight, and fabrication of RO, nanofiltration (NF), and ultrafiltration (UF) membrane water treatment plants (WTP) for municipal utilities. His municipal experience includes a well-rounded portfolio of planning, design, construction inspection, and start-up services, as well as operations assistance. In addition, Lance serves on the Board of Directors of the Southeast Desalting Association (SEDA) and was the recipient of one of its 2015 and 2018 Distinguished Service Awards. Lance has worked on over 50 RO Treatment Systems ranging in size and complexity.

PROFESSIONAL CREDENTIALS

Master of Business Administration, University of Central Florida

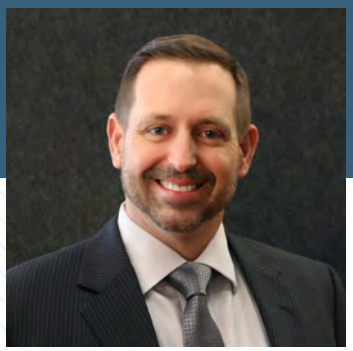
Bachelor of Science, Mechanical Engineering, Old Dominion University

Professional Engineer in Florida (#65645) and Ohio (#79857)

RELEVANT EXPERIENCE

- Lago Mar RO Treatment System – Texas City, TX
- Windsong Ranch RO Treatment System – Prosper, TX
- Flagler County RO Treatment System Retrofit and Expansion – Bunnell, FL
- Stuart RO WTP Design – Stuart, FL
- Martin County RO WTPs – Stuart, FL
- Smithfield RO Treatment System Operational Assessment – Smithfield, VA
- City of Ocala Water Treatment Feasibility Study – Ocala, FL
- Nanofiltration Treatment Plant – Jupiter, FL
- RO Treatment Plant Retrofit and Expansion – Jupiter, FL*
- West Villages RO WTP Design and Construction – Sarasota, FL
- WTP #11 Membrane Replacement Pilot Study – Belle Glade, FL
- WTP #3 Membrane Replacement Pilot Evaluation – West Palm Beach, FL
- WTP #2 Membrane Expansion Evaluation – West Palm Beach, FL
- Prineville Membrane Replacement Pilot Study – Port St. Lucie, FL*
- 6.0 MGD Prineville Membrane Expansion – Port St. Lucie, FL*
- Peele Dixie RO WTP Evlaution – Fort Lauderdale, FL*
- Immokalee Membrane Replacement Evaluation – Seminole Tribe, FL*
- Immokalee RO Treatment System Upgrades – Seminole Tribe, FL*
- St. Lucie West Services District RO System Expansion – St. Lucie County, FL*
- St. Lucie West Services District RO System Membrane Train Retrofit – St. Lucie County, FL*

**Work performed prior to joining Kimley-Horn.*



Jeff James, P.E.

RAW WATER PERMITTING

Jeff has 29 years of experience with water and wastewater infrastructure design. He has considerable knowledge of system modeling and pump stations which enables him to provide functional designs for water storage facilities. Jeff understands the sometimes complex and special design parameters involved in water storage facility design allowing him to meet the needs of the client and particular site. He has successfully managed complex multidisciplinary projects involving water and wastewater treatment, distribution, and collection lines; utility relocations; paving; and drainage.

PROFESSIONAL CREDENTIALS

Bachelor of Science, Civil Engineering, Texas Tech University

Professional Engineer in Texas (#82677), Oklahoma (#28731), Illinois (#062057727), Minnesota (#46902), and Arizona (#58142)

RELEVANT EXPERIENCE

- Wastewater Treatment Plant Expansion – Rhome, TX
- 4.0 MGD Wastewater Treatment – Gainesville, TX
- Wastewater Treatment Plant Evaluation and Master Plan – Kingsville, TX
- Wastewater Treatment Facility – Farmersville, TX
- Water and Wastewater Master Plan – Odessa, TX
- Comprehensive Master Plan, Capital Improvements Plan, and Water and Wastewater Impact Fee – Saginaw, TX
- Water Master Plan and Water and Wastewater Impact Fee Update – Flower Mound, TX
- Water and Wastewater Master Plan and Impact Fee Update – Decatur, TX
- Water and Wastewater Master Plan – Lake Worth, TX
- Water and Wastewater Master Plan – Kennedale, TX
- Water and Wastewater Master Plan – Fate, TX
- Cypress Waters Water and Wastewater Master Plan – Dallas, TX
- Water Master Plan – Muenster, TX
- Water Master Plan – Azle, TX
- Water and Wastewater Master Plan – Nashville, TN
- 0.2 MG Elevated Storage Tank – Muenster, TX
- Meadowbrook 2.0 MG Elevated Storage Tank Rehabilitation/ Repaint – Fort Worth, TX
- Broken Arrow South Elevated Storage Tank CCA – Broken Arrow, OK
- Industrial Park Utilities 16-Inch and 12-Inch Water Lines – Decatur, TX
- 24-Inch Water Line – Mansfield, TX
- Wise County US 380 Raw Water Line Improvements – Decatur, TX
- 12-Inch Water Line System Improvements – Lake Worth, TX
- Sandy Lake Road 24-Inch Water Line – Coppell, TX

Mike Shelton, P.E., AICP

WATER TREATMENT PERMITTING

Mike brings more than 25 years of experience to the table and has a broad depth of experience in municipal engineering, including roadway design, water and wastewater system design, construction management, and master planning. His diverse experience allows him to make sure your project objectives are met and to provide effective coordination across design disciplines. Under Mike's leadership, Kimley-Horn has completed design and study projects for TxDOT, county governments, and Texas municipalities resulting in successful infrastructure construction. Mike has an exemplary track record of successfully providing clear and effective communication, timely decision making, and up-front coordination.

PROFESSIONAL CREDENTIALS

Master of Science, Environmental Science, University of North Texas

Bachelor of Science, Environmental Science, Texas Christian University

Professional Engineering Texas (#95893) and North Carolina (#038415)

American Institute of Certified Planners, Member

American Water Works Association, Member

Underground Construction Technology Association, Gulf Coast Chapter, Vice President

RELEVANT EXPERIENCE

- Water Treatment Plant Filter and Blower Upgrade – Decatur, TX
- Lake Norman Water Treatment Plant Upgrade Plan – Lincoln County, NC
- Water Treatment Plant Upgrade – Broad River WSC, NC
- Wastewater Treatment Plant Process Upgrade – Rhome, TX
- Wastewater Treatment Plant Process Expansion – Rhome, TX
- WTP Clear Well and High Service Pump Station – Decatur, TX
- Water Treatment Plant Raw Water Pump Station – Wise County Water Supply District, TX
- Wastewater Treatment Plant Process Upgrade – Farmersville, TX
- 4.0 MG Wastewater Treatment Plant Expansion (Sequencing Batch Reactor) – Gainesville, TX
- WWTP Biosolids Plan – Waxahachie, TX
- WWTP Master Plan – West University Place, TX
- TCEQ Supplemental Environmental Project – Graham, TX
- Santa Fe Water and Wastewater Master Plan – Santa Fe, TX
- Water Model Analysis – Houston, TX
- Street and Utility Maintenance Program (SUMP) – Gainesville, TX
- Cedar Port Phase II Water and Wastewater Master Plan – Chambers County Improvement District #1, TX
- Fulshear Water and Wastewater Impact Fee Study – Fulshear, TX
- Wastewater Treatment Plant Master Plan – Gainesville, TX
- Impact Fee Update – Decatur, TX
- 1.5 MG Jarvis Road Elevated Storage Tank – Saginaw, TX
- Trinity Falls 3.0 Million Gallon Elevated Storage Tank – McKinney, TX
- Thompson Street 16-Inch Water Transmission Main and FM 730 12-Inch Waterline – Decatur, TX

Kyle Kubista, P.E.

SITE CIVIL AND DISPOSAL PERMITTING

Kyle has eight years of experience in providing water and wastewater treatment design and modeling services. He serves as a project engineer for municipalities across Texas to develop designs that provide operational flexibility to respond to a plant's changing needs while maximizing a plant's capabilities. He has successfully delivered projects through the planning, design, and construction phases with a focus on schedule and budget. Kyle's designs have included conventional water treatment, membrane technology, alternative disinfection including chlorine dioxide.

PROFESSIONAL CREDENTIALS

Master of Science, Civil Engineering, Texas Tech University

Bachelor of Science, Civil Engineering, Texas Tech University

Professional Engineer in Texas (#121644) and Arkansas (#17800)

Water Environment Association of Texas, Young Professionals Committee Chairman

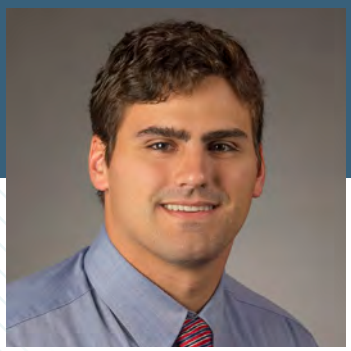
Water Environment Association of Texas, Municipal Resource Recovery and Design Committee Member

Water Environment Federation, Municipal Resource Recovery and Design Committee Member

Water Environment Federation, Students and Young Professionals Committee Member

RELEVANT EXPERIENCE

- West Wise Special Utility District Water Treatment Plant – Wise County, TX
- Runaway Bay Water Treatment Plant Master Plan – Wise County, TX
- Runaway Bay Water Treatment Plant Expansion – Wise County, TX
- Howard Road Water Treatment Plant Improvements – Waxahachie, TX
- Water Treatment Plant Master Plan – Gainesville, TX
- Water Treatment Plant CT Study – Decatur, TX
- Wastewater Treatment Plant Biosolids Assessment and Master Plan – Waxahachie, TX
- Waxahachie Wastewater Treatment Plant Improvements Phase I – Waxahachie, TX
- Gainesville Wastewater Treatment Plant Master Plan – Gainesville, TX
- Gainesville Wastewater Treatment Plant Phase I & 2 – Gainesville, TX
- West University Place Wastewater Treatment Plant Master Plan – West University, TX
- Bear Creek Special Utility District Wastewater Treatment Plant Master Plan – Collin County, TX
- Wastewater Treatment Plant 1 Rehabilitation – Farmersville, TX
- Wastewater Treatment Plant 3 – Farmersville, TX
- Northlake Wastewater Treatment Plant – Northlake, TX
- Rhome Wastewater Treatment Plant Expansion – Rhome, TX
- Windmill Ranch Wastewater Treatment Plant Needs Assessment and Biological Model – Bastrop, TX
- Quanah Wastewater Treatment Plant Improvements – Quanah, TX
- SW Wastewater Reclaim Facility, West Villages LLP – Sarasota, FL
- Wastewater Treatment Plant Evaluation – Graham, TX



Nick Black, P.E.

MEMBRANE PROCESS AND TREATMENT

Nick has nine years of experience as an engineer providing for water treatment system designs, utility and pump station design, hydraulic modeling, permitting, bid phase, and construction phase services. He strives to simplify the challenges faced by municipal facilities by identifying and implementing simple, practical solutions. Nick works closely with clients to achieve their engineering objectives while making project improvements operator friendly. He has extensive process and pump station experience, including wastewater pumping stations, in-line booster pump stations, water storage and repump stations, stormwater pump stations, and ancillary components of pumping facilities. Additionally, Nick's experience includes hydraulic modeling and analysis of water and sewer piping systems, treatment, process design, and control engineering.

PROFESSIONAL CREDENTIALS

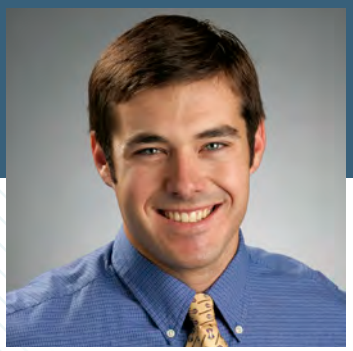
Bachelor of Science, Civil Engineering, University of Central Florida

Bachelor of Science, Environmental Engineering, University of Central Florida

Professional Engineer in Florida (#84908) and North Carolina (#046217)

RELEVANT EXPERIENCE

- RO Bank II Membrane Replacement – Jupiter, FL
- 5.5-MGD Jensen Beach Brackish Water RO Water Treatment Plant – Jensen Beach, FL
- Finish Water Stabilization (Lime Slurry Injection) to RO Water Treatment Plants (WTPs) and Finish Water Stabilization Corrosion Study – Indian River County, FL
- Palm Beach County Water Treatment Plants No. 3 and No. 9 Wellfield Surficial Well Testing – West Palm Beach, FL
- Palm Beach County Water Utilities Department (PBCWUD) Water Treatment Plant #11 Operational Improvements – Palm Beach County, FL
- Palm Beach County Water Utilities Department Water Treatment Plant #11 Clearwell and Post-Treatment Evaluation – Palm Beach County, FL
- Water Treatment Plant #11 Acid Elimination Evaluation – Palm Beach County, FL
- Water Treatment Plant #11 Membrane Replacement Pilot Testing – Palm Beach County, FL
- Water Treatment Plant #11 Post-treatment Turbidity Management Evaluation – Palm Beach County, FL
- Tropical Farms RO/Water Treatment Plant Expansion – Martin County, FL
- Lead and Copper Corrosion Study Water Treatment Plants 2,3,8,9 – Palm Beach County, FL
- Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services – Palm Beach County, FL
- Supplemental Blend Box – Jupiter, FL



Jason Lee, P.E.

MEMBRANE PROCESS AND TREATMENT

Jason has 17 years of experience on a wide range of projects, with specific expertise in the design and construction of reverse osmosis water (RO) treatment systems, chemical systems, wastewater and water pump stations, and transmission systems. Jason's experience also includes many R&R projects that have been successful in reducing operating costs for our clients, such as the installation of energy recovery turbines on existing brackish water RO skids for both Palm Beach County and Martin County Utilities, and replacing conventional wastewater repump stations with inline wastewater booster stations which have reduced energy, reduced operational maintenance, and eliminated costs related to odor treatment.

PROFESSIONAL CREDENTIALS

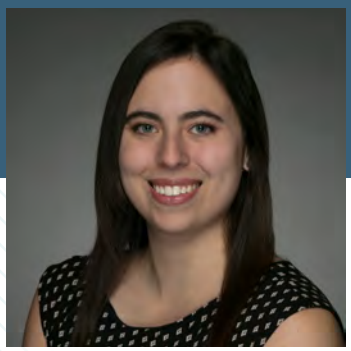
Bachelor of Science, Mechanical Engineering, Florida Atlantic University

Associate of Arts, Palm Beach Community College

Professional Engineer in Florida (#67472)

RELEVANT EXPERIENCE

- RO Bank II Membrane Replacement – Jupiter, FL
- 15.0-MGD Nanofiltration Water Treatment Plant Construction Phase Services – Jupiter, FL
- 5.5-MGD Jensen Beach Brackish Water RO Water Treatment Plant – Jensen Beach, FL
- 8.0-MGD Tropical Farms Brackish RO Water Treatment Plant Construction Phase Services – Martin County, FL
- Palm Beach County Water Utilities Department (PBCWUD) Water Treatment Plant #11 Operational Improvements – Palm Beach County, FL
- Palm Beach County Water Utilities Department Water Treatment Plant #11 Clearwell and Post-Treatment Evaluation – Palm Beach County, FL
- A-7 Inline Booster Pump Station – Palm Beach, FL
- S-2 Inline Booster Pump Station – Palm Beach, FL
- South Martin Regional Utilities (SMRU) Western Wellfield Improvements – Martin County, FL
- RO Degasifier Improvements at Jupiter Water Treatment Plant – Jupiter, FL
- Water Distribution System Modeling and Master Planning Study – Martin County, FL
- RO Water Treatment System – Manalapan, FL
- RO Concentrate Treatment Facility Improvements at Jupiter Water Treatment Plant – Jupiter, FL
- Norwood Water Treatment Facility - Chemical System Improvements – NMB Water, City of North Miami Beach, FL



Rhea Dorris, P.E.

MEMBRANE PROCESS AND TREATMENT

Rhea is a project engineer with five years of experience in water and wastewater engineering for municipal clients. She has experience in water and wastewater treatment design and piloting, hydraulic modeling, master planning, GIS analysis, pressure pipeline design, gravity sewer design, lift station design, and treatment process piloting/design. Rhea's project experience has focused on local Central Florida municipalities but extends across the state. Rhea has been involved in production of technical memorandums, preliminary design reports, design drawings, specifications, and permitting. Rhea is proficient in GIS, WaterCAD, and InfoWater.

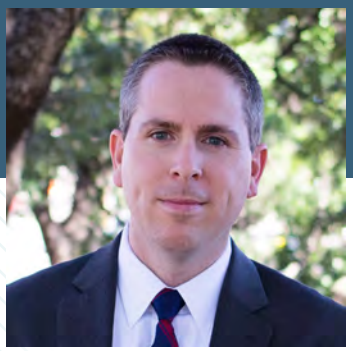
PROFESSIONAL CREDENTIALS

Bachelor of Science, Environmental Engineering, University of Central Florida

Professional Engineer in Florida (#88094)

RELEVANT EXPERIENCE

- Mount Dora Condition Assessment and Facility Evaluation – Mount Dora, FL
- Davenport Drinking Water Facilities Plan – Davenport, FL
- Lake Groves Water Treatment Plant DBP Improvements – Clermont, FL
- Ocala Water Treatment Facility Feasibility Analysis – Ocala, FL
- Palm Lakes Water Main Replacement – Palm Beach County, FL
- PBC Water Treatment Plant #11 Membrane Replacement – Palm Beach County, FL
- Shadow Hills Wastewater Treatment Plant – Longwood, FL
- Wedgefield Water Treatment Plant – Wedgefield, FL
- Wekiva Water Reclamation Facility – Wekiva, FL
- Water Treatment Plant #2 Expansion Study – Palm Beach County, FL
- Southwest Water Treatment Plant – North Port, FL
- James E Anderson Water Treatment Plant Membrane Replacement – Port St. Lucie, Florida



Ryan Sowa, P.E.

CONSTRUCTION PHASE SERVICES

Ryan has more than 20 years of municipal civil engineering experience. His specialized experience focuses on water / wastewater facilities and pipelines. Ryan has a record of success in shepherding these projects from preliminary engineering all the way through construction. Ryan's municipal projects include water distribution and wastewater collection, storage, treatment, program management, and capital improvement planning.

PROFESSIONAL CREDENTIALS

Master of Environmental Engineering, Texas Tech University

Bachelor of Science, Environmental Engineering, Texas Tech University

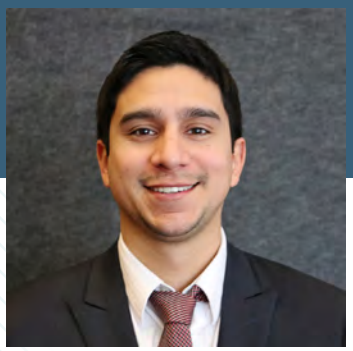
Professional Engineer in Texas (#91171)

American Water Works Association, Member

Water Environment Association of Texas, Member

RELEVANT EXPERIENCE

- Cordillera Ranch Membrane Bio-Reactor Wastewater Treatment Plant – Bergheim, TX
- SAWS Naco 40 MGD Pump Station Replacement and Disinfection Improvements – San Antonio, TX
- SAWS Naco Lime Slurry System Water Treatment Project – San Antonio, TX
- Camino Real Wastewater Treatment Plant Project – Uhland, TX
- Muenster Wastewater Treatment Plant Improvements – Muenster, TX
- SAWS 7.5 MGD Shields Pump Station – San Antonio, TX
- 10.1 MGD Lift Station 32 Project – Amarillo, TX
- 36-Inch Sewer Line and 8.0 MGD Lift Station 7 Project – Amarillo, TX
- SAWS Huebner Creek W2: Bandera to Eckert 36-inch to 42-inch Sanitary Sewer – San Antonio, TX
- SAWS E-20 Wurzbach Parkway Sewer Main – San Antonio, TX
- 36-Inch Georgia Street Interceptor – Amarillo, TX
- SAWS Cibolo Creek Sewershed Flow Diversion – San Antonio, TX
- SAWS Wurzbach Parkway Utilities Relocations – San Antonio, TX
- Alliance Water Phase 1B Infrastructure Program Development and Standards – San Marcos, TX
- 2011 San Marcos Sanitary Sewer Rehabilitation – San Marcos, TX
- Crystal Clear CCN Water Line Improvements, Phase I – San Marcos, TX
- 0.4 MG Esperanza Recycle Water Elevated Storage Tank – Boerne, TX
- SAWS Watson Elevated Storage Tank – San Antonio, TX



Mario Valdez, P.E.

CONSTRUCTION PHASE SERVICES

Mario has 9 years of municipal civil engineering experience and specializes in water and wastewater projects. His responsibilities include project management, project design, production management, estimation, permitting, and construction administration. Mario spent 3 years as a member of the City of Laredo Utilities Department engineering staff and is well versed with TCEQ and OSHA regulations. Mario was involved in the Laredo's Jefferson Water Treatment Expansion and North Laredo Wastewater Treatment Plan construction. Mario's municipal project experience is focused on wastewater rehabilitation, water distribution, and wastewater treatment. Mario's bring extensive construction administration experience of numerous projects ranging in complexity from replacement/rehabilitation pipeline construction to trenchless methods involving cured-in-place pipe, pipe bursting, horizontal directional drilling, Microtunneling, and horizontal auger bore. Mario is also involved in coordination efforts with impacted property owners and the following agencies: Texas Department of Transportation (TxDOT), Union Pacific Railroad (UPRR) , Municipalities and Counties. Mario has completed construction phase services for many of the SAWS projects listed below. Mario's role will be to provide construction administrative and observation support during construction to meet the intent of the plans and specifications.

PROFESSIONAL CREDENTIALS

Master of Engineering, Civil Engineering, Texas A&M University

Bachelor of Science, Civil Engineering, Texas A&M University

Professional Engineer in Texas (#121595)

Society of Hispanic Professional Engineers, Secretary

American Water Works Association, Member

RELEVANT EXPERIENCE

- SAWS Rancho Blanco – San Antonio, TX
- SAWS BPC East/West Small Diameter Package 1 – San Antonio, TX
- SAWS East Sewershed Package 3 – San Antonio, TX
- SAWS E-16 Wurzbach Parkway – San Antonio, TX
- SAWS E-19 Seguin Road – San Antonio, TX
- SAWS Central Large Package 1 – San Antonio, TX
- City of San Antonio Probandt Street – San Antonio, TX
- SAWS Multiple Sewershed Package 10A – San Antonio, TX
- City of Fair Oaks Ranch Elevated Storage Tank Project – San Antonio, TX
- SAWS 2020 Water Main Design Project, Canyon Golf Road – San Antonio, TX
- SAWS Multiple Sewershed Package 6A – San Antonio, TX
- SAWS Huebner Creek Enhanced Conveyance – San Antonio, TX
- 0.4 MG Esperanza Recycle Water Elevated Storage Tank – Boerne, TX
- Bee Creek Sanitary Sewer – College Station, TX
- SAWS C-69 – San Antonio, TX

PORRAS NANCE ENGINEERING

PROFESSIONAL CREDENTIALS

Bachelor of Science, Civil Engineering, Texas A&M University

Registered Professional Engineer in Texas (#87006)

Registered Professional Land Surveyor in Texas (#6235)

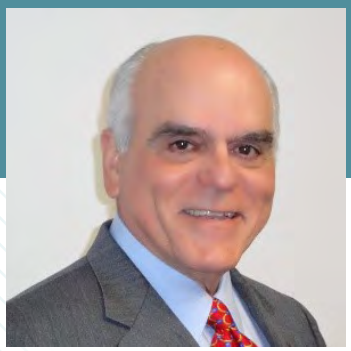
Wayne Nance, P.E., RPLS

SURVEY

Wayne has been the project engineer for various types of roadway and drainage projects for several municipalities throughout South Texas. Wayne also specializes in urban drainage design, analysis of storm drainage systems, floodplain analysis, water and sewer system design, and other utility designs. He has substantial experience in the development and implementation of engineering contract documents and specifications and can assist the City with contract bidding, award, execution, and during disputes of the same.

RELEVANT EXPERIENCE

- Civic Center Replat – Laredo, TX
- Thomas Avenue Right-of-Way – Laredo, TX
- Various Right-of-Way Reversions – Laredo, TX
- Various Subdivisions Plats and Replats – Laredo, TX
- Las Lomas, US 59 Colonias Hydrologic & Hydraulic Study – Webb County, TX
- Las Lomas Drainage Surveys – Webb County, TX



Arturo Barrera, Jr. P.E., PMP

GEOTECHNICAL

Art is a bilingual Office Manager (Spanish, English) and has over 30 years of Engineering, Procurement and Construction (EPC) experience which include planning, estimating, scheduling, Safety and Quality Assurance. His experience includes nuclear facility renovations; high explosive pressing facilities; high pressure fire systems; rocket launch facilities; US Embassy renovations and security upgrades; wireless and fiber optic telecommunication; telecommunication switch centers; 100-meter towers; aircraft technical support facilities; administrative; runways; emergency power generation plants; and military records / archive storage. Art Managed direct hire and subcontract work force and has experience with multi-project execution; Earned Value Management, Project Controls (planning, scheduling, project costs and reporting); permitting and leasing; and Risk Management. He organizes, directs and coordinates all office activities (administrative and technical) in Terracon's Laredo office. This includes general profit/loss management practices, employee supervision, project management, client relations and development, new business development and contract administration.

PROFESSIONAL CREDENTIALS

Master of Arts, Management, Webster University at San Antonio

Bachelor of Science, Civil Engineering, Texas A&M University

Professional Engineer in Texas (#63702)

Project Management Professional (#230341)

RELEVANT EXPERIENCE

- Water Dispenser, La Presa – Webb County, TX
- 20,000 BBL Tank – Webb County, TX
- Water Storage Tank, Plant 4 – Webb County, TX
- Garcia Water Storage Tank – Webb County, TX
- 24" EPC Water line – Webb County, TX
- South Laredo WWTP 18 MGD Expansion – Laredo, TX
- Sombreretillo Wastewater Treatment Plant – Webb County, TX
- South Laredo WWTP 6MGD Expansion – Laredo, TX
- 8-inch Water Line Replacement – Webb County, TX
- Manadas Waste Water Treatment Plant – Webb County, TX
- Colorado Acres Water Well – Webb County, TX
- Zapata County Waterworks Wastewater Treatment Plant Expansion – Zapata County, TX
- Flores Avenue Drainage and Utility Improvements, Phase 2 – Laredo, TX
- Zapata WWTP 0.8 MGD Expansion Project – Zapata County, TX
- Manadas Waste Water Treatment Plant – Webb County, TX
- MCWSC WW System Collection Ph 3 – Montgomery County, TX
- Sombreretillo Wastewater Treatment Plant – Laredo, TX

John Mischkot, P.E.

STRUCTURAL

John has 18 years of experience in structural engineering including experience with design and detailing, coordination with related disciplines, production of contract documents, development of project construction budgets and construction administration. He oversees conditions assessments, evaluation and rehabilitation of various existing structures at water, wastewater and lake facilities. John designs structural modifications to various existing structures to accommodate process improvements, facility maintenance and resiliency.

PROFESSIONAL CREDENTIALS

Bachelor of Science, Civil Engineering, Texas A&M University

Licensed Professional Engineer in Texas (#107566)

US Green Building Council, LEED Accredited Professional

RELEVANT EXPERIENCE

- Westside Water Treatment Plant, City of Fort Worth Water Department – Fort Worth, TX
- Port Lavaca Water Treatment Plant Evaluation, Guadalupe-Blanco River Authority – Port Lavaca, TX
- Lime Feed Loop, Ullrich Water Treatment Plant, City of Austin – Austin, TX
- East Water Purification Plant 3 Replacement of Sedimentation Basin Baffle Walls, City of Houston – Houston, TX
- Water System Improvements, Tarrant County Water Supply Project, Trinity River Authority – Euless, TX
- Water Treatment Plant Improvements, City of Beeville – Beeville, TX
- Water Treatment Plant and Lake Georgetown Pump and Power Modifications, City of Round Rock – Round Rock, TX
- Plant 3 Improvements, Southeast Water Reclamation Plant, City of Lubbock – Lubbock, TX
- Water Treatment Plant Expansion, Lewisville Lake – City of Denton, TX

Matt Uliana, PhD, PG

DISPOSAL - DEEP WELL INJECTION

Matt has nearly 30 years of experience and progressive responsibility leading and supporting geology, hydrology, environmental regulatory compliance, and water resource related consulting projects. He specializes in physical and chemical hydrogeology, low-temperature aqueous and isotope geochemistry, computer modeling of groundwater flow and geochemical reactions, groundwater availability studies, surface-water hydrology and groundwater-surface water interactions, groundwater contamination assessments, surficial processes, and general earth science. Matt has extensive experience developing geological assessments and reservoir modeling for permitting of Class I waste disposal injection wells, aquifer testing and analysis, aqueous geochemistry investigations, groundwater contamination assessments, groundwater and geochemical modeling, state and federal regulatory compliance oversight, expert witness testimony, and general hydrogeologic assessments. He has also authored numerous groundwater reports and peer-reviewed publications, and he has over 7 years of experience teaching at the university level.

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

PROFESSIONAL CREDENTIALS

PhD, Geological Sciences, University of Texas

Master of Arts, Geological Sciences, University of Texas

Bachelor of Science, Geology/Anthropology, James Madison University

Professional Geologist in Texas (#2506)

RELEVANT EXPERIENCE

- Injection Well Modeling for the Kalaeloa Seawater Desalination Facility, Honolulu Board of Water Supply – Oahu, Hawaii
- Class II Well Permit Application Protests, New Mexico State Land Office – Lea County, NM
- Class I Injection Well Permit Applications (Multiple Projects), Multiple Clients – Various Locations, TX
- Sunny 1H Class II SWD Application Review and Testimony, Post Oak Savannah Groundwater District – Burleson County, TX
- Desalination Pilot Plant Disposal Well Injectate Chemistry Evaluation, San Antonio Water System – Bexar County, TX
- ENSTOR Class II SWD Brine Geochemistry Study, R.S. Kier Consulting – Reeves County, TX
- Culberson County Groundwater Salinization, Culberson County – Van Horn, TX
- Chapman Ranch Well Production Permits, Crawford & Crawford – Coyanosa, TX
- Dimmit Mine Carrizo Aquifer Groundwater Supply Development and Well Permit Applications, Black Mountain Sand – Carrizo Springs, TX
- Unimin Sand Quarry Dewatering Models -Multiple Projects, Unimin – Various Locations, MN and WI
- Aquifer Testing and Analysis - Multiple Projects, Multiple Clients – Various Locations, TX, MN, and CA
- Wellfield Evaluation, Confidential Client – Pecos County, TX

INTERA
GEOSCIENCE & ENGINEERING SOLUTIONS

PROFESSIONAL CREDENTIALS

Master of Science, Hydrogeology, Texas A&M University

Bachelor of Science, Petroleum Geology, Mississippi State University

Professional Geoscientist in Texas (#4923)

Member, Association of Ground Water Scientists and Engineers

Member of the American Geophysical Union, Water Resources Division

Member, Texas Water Conservation Association

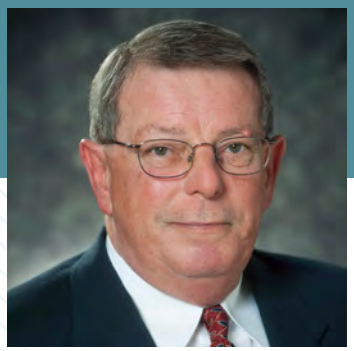
Van Kelley, PG

HYDROLOGY

Van has managed and performed work in virtually every major and minor aquifer in Texas. He has performed and analyzed in borehole well tracing to characterize interval specific water quality and productivity for over 30 years. Over the last eight years, he has managed several alternative water supply strategy projects focused on Aquifer Storage and Recovery (ASR) and Brackish Groundwater Resources. He is very experienced in communicating with the public and with his peers and regularly presents the results of his work at conferences. Van has regularly presented at the Texas Water Conservation Association (TWCA) and most recently presented to the Texas Alliance of Groundwater Districts (TAGD). He serves on the TWCA ASR Subcommittee and the TWCA Brackish Groundwater Subcommittee to help develop improved regulations to promote these alternate sources in Texas. He has been a contributor to Essentials of Texas Water Resources put out by the Texas State Bar since 2012 contributing to the chapter on ASR. He is a Corporate Officer as well as an Executive Vice President and Principal Hydrogeologist at INTERA.

RELEVANT EXPERIENCE

- City of Georgetown Evaluation of Aquifer Storage and Recovery in the Edwards and Northern Trinity Aquifers, CDM Smith – Georgetown, TX
- Expert Witness for Groundwater Production and Export Permits, Carrizo-Wilcox Aquifer, Lower Colorado River Authority – Bastrop, TX
- Regulatory Plan Development, Harris Galveston Subsidence Districts – Houston, TX
- Evaluation of Aquifer Storage and Recovery (ASR) in the Gulf Coast Aquifer, Harris Galveston Subsidence District (HGSD) – Houston, TX
- Study of Fresh and Brackish Groundwater Resources in Gulf Coast Aquifer System – Confidential Client, TX
- Study of Brackish Aquifers in Texas - Gulf Coast Aquifer System - Brackish Resources Aquifer Characterization System – Texas Water Development Board, TX.
- Investigation of Brackish Resources of the Gulf Coast Aquifer and the Potential Future Development Impact on Land-Surface Subsidence, Harris-Galveston / Fort Bend Subsidence Districts – Gulf Coast TX
- Study of Brackish Aquifers in Texas - Rustler Aquifer - Brackish Resources Aquifer Characterization System (BRACS) – Texas Water Development Board (TWDB), TX
- South Texas Energy and Economic Roundtable (STEER)/Evergreen Underground Water Conservation District – Pleasanton, TX



CLEARY ZIMMERMANN ENGINEERS

John Cleary, P.E.

ELECTRICAL/PROGRAMMING

John brings more than 30 years of engineering experience to his projects. He is an expert in the water and wastewater treatment industry, with a keen sense of control and chemistry of water and wastewater, including all regulatory requirements. He has provided electrical engineering, SCADA, digital controls design, and start-up and commissioning services for numerous water and wastewater treatment facilities, lift stations, pump stations, and booster stations, in states such as Florida, Idaho, New Jersey, New York, Massachusetts, Washington, New Mexico and across Texas.

PROFESSIONAL CREDENTIALS

Bachelor of Science, Electrical Engineering, Texas A&M University

Registered Professional Engineer in Texas (#51130)

RELEVANT EXPERIENCE

- Unitec Wastewater Treatment Plant Upgrades – Laredo, TX
- Weslaco Water Treatment Plant Generator – Weslaco, TX
- City of Carrizo Springs Wastewater Treatment Plant – Carrizo Springs, TX
- City of Carrizo Springs Wastewater Treatment Plant Emergency Generator Replacement – Carrizo Springs, TX
- City of Devine L C Martin Water Treatment Plant – Devine, TX
- Del Rio Booster Pump Station – Del Rio, TX
- City of Natalia Wastewater Treatment Plant Upgrades – Natalia, TX
- Jourdanton Elevated Tank Lighting – Jourdanton, TX
- Jourdanton Lift Station – Jourdanton, TX
- City of Karnes City Wastewater Treatment Plant and Sanitary Sewer Improvements – Karnes City, TX
- Lyford Water Treatment Plant USDA – Lyford, TX
- San Juan Water Treatment Plant – San Juan, TX
- City of Carrizo Springs Wastewater Treatment Plant – Carrizo Springs, TX
- City of Camp Wood Camp Wood Generators – Camp Wood, TX
- Brownsville Public Utilities Board Laboratory Building Power Plan – Brownsville, TX
- City of Mission Industrial Wastewater Pre-Treatment Plant 1999 – Mission, TX
- City of Hidalgo 1 MGD Wastewater Treatment Plant Improvements – Hidalgo, TX
- Hold & Haul & Process Waste Piping Upgrades – San Antonio, TX
- City of Seguin Vetter Street Booster Station – Seguin, TX
- Texas Parks & Wildlife Department Seminole Canyon State Park Trinity/Edwards Water Production Well – Comstock, TX
- Harris County Municipal Utility District No. 33 Water Plant and Remote Well – Houston, TX

CLEARY ZIMMERMANN ENGINEERS

PROFESSIONAL CREDENTIALS

Bachelor of Science, Electrical Engineering, Texas A&M University

Registered Professional Engineer in TX (#134592)

Richard Guzman, P.E., SEC+, ENV SP

ELECTRICAL

Richard leads Cleary Zimmermann Engineers' Water/Wastewater division and is experienced in providing electrical, instrumentation, communication, security, and SCADA system design for water and wastewater plants, pump stations, and lift stations. Electrically, he is skilled at designing medium and low voltage power distribution systems and emergency generators, ensuring power utility compliance, and is knowledgeable of all applicable codes, including NEC and TCEQ. His security expertise includes video management systems, surveillance cameras, analytics, access control, fiber optic communication systems, network systems, and structured cabling. Richard is also a skilled project manager, whose efficient communication and commitment to construction oversight ensures that projects are completed on time and within budget.

RELEVANT EXPERIENCE

- Unitec Wastewater Treatment Plant Upgrades – Laredo, TX
- L C Martin Water Treatment Plant – Devine, TX
- Wastewater Treatment Plant Upgrades – Natalia, TX
- Jourdanton Elevated Tank Lighting – Jourdanton, TX
- Jourdanton Lift Station – Jourdanton, TX
- San Juan Water Treatment Plant – San Juan, TX
- Water Treatment Plant Instrumentation Upgrade Survey – Alamo, TX
- JL Bar Ranch Electrical Infrastructure Assessment – Sonora, TX
- Wastewater Treatment Plant 2019 Improvements – San Juan, TX
- New Braunfels Utilities Gruene Wastewater Treatment Plant – New Braunfels, TX
- Water Treatment Plant Filter Building Upgrades – Seguin, TX
- Brazoria County MUD #21 Brazoria County MUD No. 21, Reporting Desktop Workstation – Houston, TX
- Brazoria County MUD #21 Brazoria County MUD No. 21, Network Switch and Cellular Router – Houston, TX
- Brazoria County MUD #21 SCADA Service Contract – Houston, TX
- Port Houston Bayport Communications / Security Master Plan and Network Master Plan – Houston, TX
- SCADA Rankin Road Lift Station Programming – Houston, TX
- Hayes Automation and Controls, LLC General SCADA Service Contract 2019-2020 – Montgomery, TX
- SCADA Troubleshooting – Willis, TX

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PROFESSIONAL CREDENTIALS

Master of Science, Architecture and Building Design, Columbia University

Bachelor of Architecture, Pratt Institute

Registered Architect with the State of Texas (#18185)

The Congress of New Urbanism CNU: Accredited Member

Green Building Certification Institute-LEED Accredited Professional

Vivana Frank, FAIA, LEED AP, CNU-A

ARCHITECTURE

Viviana is a registered Architect in the state of Texas and New York with over 20 years of experience. Her work has been published and exhibited nationally and internationally in the fields of architecture, interiors/space planning, rural and urban design. Her commitment to the firm and its clients is evident through her accessibility, strong leadership, and detail-oriented vision which has resulted in long-standing and favorable relationships with clients. She has a drive for the evolution of cities and the engagement of its citizens. Viviana Frank has guided the firm through notable projects in the public and private sector, practicing a philosophy that connects people to the places in which they live.

RELEVANT EXPERIENCE

- Viva Laredo Comprehensive Plan – Laredo, TX
- Hayes Wellness Center and Grounds Master Plan – Laredo, TX
- Laredo Energy Arena – Laredo, TX
- The River Vega Improvement Phase 1 Project – Laredo, TX
- Veterans Outreach and Transition Center – San Antonio, TX
- City of Laredo Health Department Addition – Laredo, TX
- Gateway Community Health Center, South Laredo Center – Laredo, TX
- World Trade Bridge Inspection Station Expansion Project – Laredo, TX
- Bridge of the Americas Modification Project – Laredo, TX
- Gateway Community Health Center, South Laredo Center – Laredo, TX
- Webb County Youth Village – Laredo, TX
- Webb County Justice of the Peace Courthouse – Laredo, TX
- Children's Advocacy Center – Laredo, TX
- Laredo Entertainment Center – Laredo, TX
- Rio Bravo Community Center Renovation/Addition – Webb County, TX
- U.S. Border Patrol Administration Project – Carrizo Springs, TX
- Department of Homeland Security – Laredo, TX

References

LAND TEJAS

Michelle Jordan, *Amenity Project Manager*

2450 Fondren, Suite 210, Houston, TX 77063

832.277.4113

mjordan@landtejas.com

PROJECT: Lago Mar RO Treatment System, Artificial Swimming Lagoon – Texas City, TX

WSR GROUNDS LLC

Cory Rhodes, *Grounds Director*

2242 Good Hope Road, Prosper, TX 75078

MAIN: 469.532.0689

CELL: 214.957.6784

crhodes@wsrgrounds.com

PROJECT: Windsong Ranch RO Treatment System, Crystal Lagoons – Prosper, TX

UTILITIES INC. OF FLORIDA

Bryan Gongre, *Regional Manager*

200 Weathersfield Ave, Altamonte Springs, FL 32714

321.972.0360

bkgongre@uiwater.com

PROJECT: Lake Groves Water Treatment Plant

CITY OF PORT ST. LUCIE

Brad Macek, *Utility System Director*

900 SE Ogden Lane, Port St. Lucie, FL 34983

772.873.6412

BMacek@cityofpsl.com

PROJECT: Port St. Lucie Membrane Replacement Pilot – Port St. Lucie, FL

MARTIN COUNTY

Todd Leyland,
Treatment Plant Operations Administrator

2378 SE Ocean Boulevard, Stuart, FL 34996

772.221.1442

TLeyland@martin.fl.us

PROJECT: Tropical Farms 14.0-MGD Brackish Water Treatment Plant Expansion – Martin County, FL

Kimley-Horn Similar Project Experience

Project references can be found on page 24

☑ **DESIGN COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO technology
- TCEQ permitting required

LAGO MAR RO TREATMENT SYSTEM, ARTIFICIAL SWIMMING LAGOON

TEXAS CITY, TX

Kimley-Horn completed the design and procurement assistance services for a 140,000 GPD RO water treatment facility to support water quality to the water feature amenity. Initial water quality indicated an elevated phosphate level which feeds biological growth in the basin. Kimley-Horn was asked to produce a treatment system for phosphate removal from the water supply and support continued use of the water feature. The treatment system included a 100 gpm (~140,000 GPD) finished capacity inclusive of pre-treatment chemical addition, cartridge filtration, RO system, post treatment disinfection, complete automated control system and integration into the existing treatment plant controls. Due to the constricted site, this RO facility was completely housed inside a standard 40-foot sea train shipping container inclusive of air-conditioned space, internal lighting, and finished interior. The treatment unit was completely manufactured offsite and is being shipped to the project site for offloading and plumbing connections. Once connected, the unit will be started up and transitioned to full system service at this water feature facility. This project is currently in construction and the RO treatment system container is anticipated to be delivered late May. Kimley-Horn staff will be present for the delivery, startup, and testing of the unit. In addition, Kimley-Horn will support operator training for the onsite and remote staff managing the RO treatment system.

CLIENT: Land Tejas

ENTITY: Private

SIZE OF ENTITY: Approx. 25 employees

CONSTRUCTION DATE AND VALUE: Construction ongoing (anticipated late May); Estimated $130,000

ARCHITECT: N/A

CONTRACTOR: Sea Level Systems, Inc.

STAFF: Lance Littrell, P.E., Gina Parra, E.I.

☑ **DESIGN COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO technology
- TCEQ permitting required

WINDSONG RANCH RO TREATMENT SYSTEM, ARTIFICIAL SWIMMING LAGOON

PROSPER, TX

Kimley-Horn completed the design and procurement assistance services for a 140,000 GPD RO water treatment facility to support water quality to the water feature amenity. Initial water quality indicated an elevated phosphate level which feeds biological growth in the basin. Kimley-Horn was asked to produce a treatment system for phosphate removal from the water supply and support continued use of the water feature. The treatment system included a 100 gpm (~140,000 GPD) finished capacity inclusive of pre-treatment chemical addition, cartridge filtration, RO system, post treatment disinfection, complete automated control system and integration into the existing treatment plant controls. Due to the constricted site, this RO facility was completely housed inside a standard 40-foot sea train shipping container inclusive of air-conditioned space, internal lighting and finished interior. The treatment unit was completely manufactured offsite and is being shipped to the project site for offloading and plumbing connections. Once connected, the unit will be started up and transitioned to full system service at this water feature facility. This project is currently in construction and the RO treatment system container is anticipated to be delivered early June. Kimley-Horn staff will be present for the delivery, startup and testing of the unit. In addition, Kimley-Horn will support operator training for the onsite and remote staff managing the RO treatment system.

CLIENT: Tellus Group

ENTITY: Private

SIZE OF ENTITY: Five employees

CONSTRUCTION DATE AND VALUE: Construction ongoing (anticipated early June); Estimated $135,000

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Lance Littrell, P.E., Gina Parra, E.I.

☑ **CONSTRUCTION COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO technology
- Achieved cost savings

LAKE GROVES WATER TREATMENT PLANT

CLERMONT, FL

The Lake Groves WTP service area is in South Lake County, FL. The facility is a 6 MGD facility which includes a lower Floridan well, forced draft aerators, ground storage, chlorination, and high service pumping. The facility was designed with the forced draft aerators to reduce the sulfide levels in the water. In recent years, the facility has been exceeding the Stage 2 DBP Rule's TTHM compliance levels and has contracted Kimley-Horn to evaluate the system to determine the most cost-effective option for treatment. Originally, an analysis was provided to compare the common advanced technologies of ion exchange, granular activated carbon (GAC), ozone, and low-pressure membrane treatment. Due to the water quality and the ability to discharge the concentrate flow with the reclaimed water, the utility initially selected low pressure membrane treatment. This was then estimated to cost over $6M to construct with a measurable operating cost. While the membrane treatment reliably brings the TTHM levels down and was proven during the onsite pilot testing, Kimley Horn evaluated chlorine dioxide as a potential alternative for the Utility's Stage 2 DBP compliance. Through laboratory testing and comparison of results with other chlorine dioxide data, it was found that the chlorine dioxide could be utilized as a pre-oxidant dosage to eliminate or significantly reduce the chloroform species of TTHMs forming from the raw water TOC when followed by chlorine disinfection. Since there are very little bromide species of TTHMs in the raw water formation potential, it was determined through jar testing that a chlorine dioxide system will reliably reduce the TTHM formation in the system by reacting with the organics. The system is currently in pilot testing to use chlorine dioxide as a pre-oxidant prior to disinfection with sodium hypochlorite. The projected capital cost for the final installation, including pilot testing and design, is less than $500,000 saving the utility over $5,000,000.

CLIENT: Utilities Inc. of Florida

ENTITY: Private

SIZE OF ENTITY: Approx. 100 employees

CONSTRUCTION DATE AND VALUE: 2018; $501,332

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Lance Littrell, P.E., Rhea Dorris, P.E.

☑ **DESIGN COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO technology
- Rapid permit process

FLAGLER COUNTY RO TREATMENT SYSTEM RETROFIT AND EXPANSION

FLAGLER COUNTY, FL

Kimley-Horn provided a timely response to the declining water production capabilities at the County's Eagle Lakes Water Treatment Plant. The treatment process was severely fouled up and unable to meet production demands for the service area. Kimley-Horn prepared and obtained a construction permit for the upgrade to the existing treatment plant and expansion doubling the process and storage capacity for the plant. The permit was prepared and approved within four weeks of the notice to proceed and opened up the opportunity for the Utility to regain process production capacity it needed. The project included an evaluation of the existing treatment process, storage and pumping capacity, and hydropneumatic tank system. After the evaluation, the existing RO treatment process was identified as a critical item to rehabilitate and Kimley-Horn prepared a separate track of construction bidding for upgrades to the treatment unit as phase 1 of the upgrades. These upgrades were completed within four months of the notice to proceed and the facility was returned to its full treatment capacity.

The phase 2 efforts of this project included doubling the RO treatment capacity with a second production skid, adding a second ground storage tank in series with the existing ground storage tank, and chemical injection upgrades to account for the increased water production.

CLIENT: Flagler County Utilities

ENTITY: Public

SIZE OF ENTITY: Estimated population of 109,000

CONSTRUCTION DATE AND VALUE: Phase 1 completed May 2018; $23,500 Phase 1; $60,000 (Estimated Phase 2)

ARCHITECT: N/A

CONTRACTOR: Sea Level Systems, Inc.

STAFF: Lance Littrell, P.E.

☑ **DESIGN COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Similar size treatment unit to Colorado Acres
- Flexible design focused on operator friendly features

PORT ST. LUCIE MEMBRANE REPLACEMENT PILOT

PORT ST. LUCIE, FL

Kimley-Horn provided services for the 30,000 gpd pilot-scale study to evaluate multiple membrane manufacturers to identify an energy efficient membrane replacement for the nearly 12-year-old membranes in trains 1 through 3. The membrane selected will also be utilized to replace the remaining 7 trains to complete the 22.0 MGD James E. Anderson RO WTP. The 30,000 gpd membrane unit operated with a split stream of raw water from the WTP supply wells. Three membrane manufacturers are tested for performance, power, chemicals, and total overall operating costs for water generation at this facility. The project includes evaluations of the ten RO trains and the overall facility optimization for reliability and operational cost. The project design includes the upgrades to remedy the challenges with the existing facility after 15 years of operation and repair elements that are currently reaching the end of their service life. The final pilot study report, including an energy efficiency evaluation, chemical reduction and elimination, as well as full bid specification, procurement, startup, and troubleshooting support for the City through the five year upgrade program for the facility.

CLIENT: City of Port St. Lucie

ENTITY: Public

SIZE OF ENTITY: Population of 195,248

CONSTRUCTION DATE AND VALUE: Ongoing; Estimated construction/ membrane replacement cost $2M over 5-year facility upgrade program

ARCHITECT: N/A

CONTRACTOR: TBD

STAFF: Lance Littrell, P.E.

☑ **CONSTRUCTION COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO treatment process
- Focus on energy efficient design

TROPICAL FARMS 14.0-MGD BRACKISH WATER TREATMENT PLANT EXPANSION

MARTIN COUNTY, FL

Kimley-Horn developed an alternative water supply to the existing shallow aquifer supply that was critical to Martin County's growing water supply issues. The team developed a new Floridan aquifer water supply for an 8.0-MGD low pressure brackish water RO treatment system that would serve Martin County's consolidated water system. The treatment system included state-of-the-art inter-stage boost using energy recovery turbines and high recovery system operating at 85% recovery, one of the highest brackish water recovery systems known in the industry. Recently, our team evaluated a treatment method, which would reduce the organics in the surficial aquifer using anion exchange. The preliminary evaluation included a comparison of MIEX (magnetic ion exchange) fluidized bed and conventional fixed bed of anion exchange resin. An innovative approach was to utilize the existing concentrate clear well for the fluidized bed compartment to reduce capital and energy costs. In the end, the study identified conventional fixed-bed anion exchange as the preferred treatment method.

CLIENT: Martin County Utilities and Solid Wastes

ENTITY: Public

SIZE OF ENTITY: Estimated Population of 159,792

CONSTRUCTION DATE AND VALUE: May 2009; $23,141,112

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Mark Miller, P.E., Lance Littrell, P.E., Nick Black, P.E.

☑ **CONSTRUCTION COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO treatment process
- Successful design for variable ground water quality

TROPICAL FARMS AND JENSEN BEACH RO WATER PLANT FLORIDAN WELL EVALUATION

MARTIN COUNTY, FL

The Kimley-Horn team assisted Martin County Utilities with collecting raw water quality from each of the nine Floridan wells, reviewing water quality and well performance data, evaluating alternate wellfield operating plans, and providing recommendations to optimize wellfield operations. Tasks for this project involved Upper Floridan Well (UFA) testing, review data, evaluate wellfield operations, and meetings and recommendations. Additional tasks orders included hydrogeological modeling, preparation of additional reports, if necessary; design of any improvements; well siting investigation; and laboratory testing expenses by Martin County Utilities.

CLIENT: Martin County Utilities and Solid Wastes

ENTITY: Public

SIZE OF ENTITY: Estimated Population of 159,792

CONSTRUCTION DATE AND VALUE: $15,839; December 2014

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Lance Littrell, P.E.

☑ **CONSTRUCTION COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Same RO treatment process
- Ground water treatment

5.5-MGD JENSEN BEACH BRACKISH WATER RO WATER TREATMENT PLANT

JENSEN BEACH, FL

JLA Geosciences, Inc., along with Kimley-Horn, developed Martin County's first Florida wellfield for their North Jensen Beach water treatment plant (WTP). Project services consisted of master planning, raw water main corridor study and design, water supply permitting, wellfield siting and development, and oversight of the construction of four deep Floridan wells. The project team provided design, permitting, and construction phase services for the Floridan supply wells which serve their brackish water, low pressure RO WTP. The first two wells, RO-1 and RO-2, were drilled on the plant site and were designed to provide 1.7 MGD of capacity. Through improved well design and innovative drilling procedures which were specified, additional well capacity was achieved from the additional wells 3 and 4. In doing so, the cost of additional wells was significantly reduced. JLA, along with the Kimley-Horn team, also developed improvements to their 3.5-MGD shallow surficial wellfield which served their lime softening plant, of which treated water is blended with the RO plant product water. Our project team provided water use permitting, wetland monitoring, rehabilitation and abandonment of old wells, and planning for the shallow water wellfield.

CLIENT: Martin County Utilities and Solid Wastes

ENTITY: Public

SIZE OF ENTITY: Estimated Population of 159,792

CONSTRUCTION DATE AND VALUE: November 2015, $1,336,351

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Mark Miller, P.E.

☑ **CONSTRUCTION COMPLETED**

SIMILARITY TO COLORADO ACRES PROJECT

- Upgrade of existing operating WTP
- Operator-friendly design features

15.0-MGD NANOFILTRATION WATER TREATMENT PLANT (WTP) CONSTRUCTION PHASE SERVICES

JUPITER, FL

Kimley-Horn was engaged by the Town of Jupiter administrator during construction of their new nanofiltration WTP. Kimley-Horn assembled a team of Kimley-Horn personnel combined with Town personnel to staff a full-time inspection and site presence operation. This nanofiltration plant replaced their existing lime softening treatment facilities. A unique feature of this plant is that it was the first in the U.S. to utilize center feed membrane vessels. Kimley-Horn was chosen to represent the Town on this project based on our familiarity with the site, preferences of the Town of Jupiter, and a demonstrated ability to keep construction moving while implementing field changes that individually make incremental improvements in the facility. This plant also includes more than $10 million in owner-purchased equipment which saved the Town more than $600,000. Kimley-Horn developed a unique teaming approach with the Town during construction that allowed Town staff to be very involved throughout the process and significantly reduced their costs. Town employees were assigned to perform certain administrative and construction observation roles that would normally be offered by the engineering consultant on a project of this magnitude. Kimley Horn's professional staff on-site were then available to focus on time-critical engineering efforts and field changes. This collaborative approach has proven to be highly successful from both the Town's and Contractor's standpoint.

CLIENT: Town of Jupiter

ENTITY: Public

SIZE OF ENTITY: Population of 65,524

CONSTRUCTION DATE AND VALUE: December 2010, $4.4 million

ARCHITECT: N/A

CONTRACTOR: N/A

STAFF: Mark Miller, P.E.

Project Approach

Kimley-Horn's understanding of the County's needs under this water treatment project positions our firm to serve Webb County well. This project will provide the necessary treatment to eliminate the numerous TCEQ violations received by the County over the past several years. We're aware of those violations, have solved them for other municipal entities and are well-versed in delivering these sized treatment systems using a performance specification with minimal drawings. We have a proven history and track record of delivering similar projects to municipalities like Flagler County's Eagle Lakes WTP located in Florida and several private clients in Texas. Having delivered several similar sized projects, we've crafted an approach to execute this project for Webb County with flexibility to accommodate the functionality of the Colorado Acres Water Treatment Plant demands.

For smaller systems, similar to the proposed Colorado Acres RO system, Kimley-Horn has typically prepared a performance specification for the membrane system that can be used to procure the membrane treatment system through a competitive bidding or sole sourced procurement. We have a good handle on the industry and pricing and we can make sure the County receives a competitive bid price, even if a sole source procurement is desired. Our relationships with the six to eight suppliers of these sized systems stem from a long history of delivering similar projects in the industry and our recent projects that allow us to be tuned-in to the right pricing.

In addition to the performance specification for the RO system, we have typically performed a brief design effort in support of the well upgrades where needed, surrounding site integration, regulatory permitting, concentrate disposal, post membrane water stabilization, and conveyance for a complete and functioning system. Kimley-Horn used this approach for Windsong Ranch and Lago Mar's RO treatment systems specifically in Texas. Often times, utilities with entities similar to Webb County know a RO treatment system is needed through discussion with vendors and traditional civil/environmental engineering firms. However, the post treatment stabilization is often neglected.

We have a proven history and track record of delivering similar projects.

Especially with water that has been treated through an RO system, the final product can be very aggressive and can potentially leach containments out of public and/or private water systems and can pose a health risk to the end user. Due to situations like the water crisis in Flint, Michigan, that vital post treatment stabilization is designed to make sure the water chemistry in the finished product water is compatible with the existing system. Even with a thorough RO system performance specification, it is vital to account for the well, final water chemistry, and pipe network function as a complete and operational system.

RAW WATER SUPPLY

Raw water is the life blood of a water supply system and is one of the most important aspects of any water treatment system, especially a membrane treatment system. We understand that the existing well water quality has degraded over time and it is understandable as we've seen similar impacts on many of our Client's wellfields throughout the Country. Our team has extensive real-world aquifer groundwater supply experience in Texas and across the Country. This affords the County a team that not only understands what to expect when developing a well, but also the experience to rehabilitate existing wells to maximize well yield and optimize water quality. Our approach to maximizing individual well yield results in lower operating costs and reduced pumping energy for the new treatment plant. We will implement innovative techniques such as formation jetting and acidizing of wells that our team has developed over many years through well testing and drilling to maximize the specific capacity of wells, resulting in more water for every dollar spent on powering up the well pumps. Kimley-Horn's experience also brings wellhead design that does not require submersible pumps or deep-set vertical turbine pumps. Often, this approach reduces front-end capital costs of the wellhead and long-term maintenance costs and labor efforts.

Typical wellheads and pumps are constructed with one of the following designs in mind.

- Submersible
- Vertical turbine line-shaft
- Horizontal end-suction

Typically, submersibles are more costly to maintain, with horizontal end suction pumps the least costly to construct and maintain. Since the equipment component that fails most with well pumps are the motors, surface access to the motors is more maintenance friendly than submersible motors which require extensive efforts to remove pump columns and power cabling to remove the pump and repair the motor. Our approach is to maximize the yield of the existing wells, return them to service, and prevent costly efforts and time to drill new production wells.

Concerns over air entering the raw water through end suction or vertical turbine pumps can be eliminated with foot valves on the vertical turbines and/or sub-atmospheric pressure transmitters. Kimley-Horn has successfully implemented each of these alternatives for several municipal wellfields. We're always focused on the impact to the Owner, its operation staff, and the treatment process stability when considering these wellfield evaluations. There are numerous examples

Our approach to maximizing individual well yield results in lower operating costs and reduced pumping energy for the new treatment plant.

of these types of installations that have been in operation for more than 20 years without any intrusion of air into the raw water systems. Our team has designed, permitted, and placed into operation both types of installations within the last few years.

RO PROCESS TREATMENT

Meeting compliance challenges starts with the treatment process and its ability to remove the compounds that impact the downstream water quality. Specifically, organics, turbidity, and sulfides are important items to address for the Colorado Acres WTP. Membrane systems provide not only the short-term compliance but also the flexibility to maintain long-term water quality compliance as regulations tighten on Unregulated Contaminant Monitoring Rule (UCMR) and Per- and Polyfluoroalkyl Substances (PFAS) compounds. The RO treatment process removes undesired salts, naturally occurring organics, emerging contaminants, and dissolved ions through a fairly efficient rejection potential. With the consistency of these elements, the County can rest easy knowing that the use of membranes will account for upcoming regulatory restrictions or increases in raw water quality. Given the County's historical violations of disinfection byproducts (DBPs), membranes are the primary component needed to provide product water meeting all drinking water standards, accounting for any changes in raw water quality and, in some cases, concentrate disposal regulations. The most efficient membrane system is one which operates at the lowest feed pressure, highest flux, and highest recovery. Kimley-Horn has evaluated and upgraded over 10 membrane facilities within the last five years to account for similar changes in water quality and/or regulatory limit constrictions. In writing a performance specification for the membrane system like the containerized unit shown in the photo to the left, Kimley-Horn can optimize the operating parameters of the RO system performance while still allowing for a competitively bid specification. Moreover, our experience brings the firsthand knowledge of each piece of equipment and the reputable manufacturers that you can trust to withstand the application for the long haul.

Kimley-Horn has evaluated and upgraded over 10 membrane facilities within the last five years to account for similar changes in water quality and/or regulatory limit constrictions.

Knowing that Webb County has an existing water treatment plant where the new treatment is to be utilized, we've already considered multiple construction delivery techniques to determine the best fit for the County. Different physical configurations for the RO system have been used in our designs in the past depending upon the conditions at each Utility site. These construction projects, expansions, and retrofits have been designed to be installed within an economical sea train container as a confined unit requiring only piped connections and a single power drop on the site. Others have decided to pursue more permanent brick and mortar, steel structure buildings or tilt-up facilities to house the RO treatment systems based on the existing site conditions and their local code requirements. These more permanent structures may cost a bit more but offer a longer durability at each facility. Our flexibility has led us to include control buildings with the RO membranes and process components stored indoors as well as lower upfront costs of weather tolerant panels that feed a control room inside of a process container. For smaller systems, less than 200,000 GPD of capacity, it is common to write a performance specification for the RO system and design the

site and additional treatment around the specified unit. As we've done for several of our existing clients, Kimley-Horn has the knowledge and wherewithal to tailor the system to the water quality parameters, as well as, the economic and aesthetic preferences of Webb County officials, operations staff, and vendors require. From well supply to permeate, Kimley-Horn's staff is focused on serving the County's needs and making sure that expectations are addressed with this facility.

Our experienced approach eliminates more than 12 weeks typically required for membrane piloting.

No Membrane Pilot Testing Required

Historically, TCEQ and other regulatory agencies across the nation have required pilot testing of the raw water supply before full scale installation. Kimley-Horn has extensive experience with RO systems, treatment of similar 2,000 to 5,000 TDS water supplies, and understands the challenges with implementing these types of treatment systems. For Webb County, our experience brings the ability to accurately predict how the membrane elements will perform with the salt and organics rejection and what water quality parameters are critical to selecting the best long-term fit for membrane elements. Although we have done numerous pilot tests and demonstration treatment systems for our clients, our experienced approach eliminates more than 12 weeks typically required for membrane piloting (>2,000 hours) and moves your project forward into the performance specification process and ancillary design efforts. In fact, our knowledge of the water quality and the impacts to membrane selection allows us to hit the ground running in the preliminary design of the membrane system and overall treatment facility upgrades. We'll use our extensive knowledge to incorporate operational flexibility adjustments into the RO membrane skid size, element array, potable water recovery, and feedwater pressures expected at the raw water quality and potential degradation. It is important that these non-technical items are specified in the performance specification to ensure the operation is spacious and operator-friendly albeit in a relatively tight container. This experience and flexibility allows Webb County to quickly incorporate a new treatment system and address water quality violations within a few months rather than waiting nearly a year for the improved treatment system installation.

Operate RO Trains at Higher Recovery ~ 80+%

Another important element is to match the RO train size with well capacity. Our experience with water supply wells, particularly those that have shown historical water quality degradation, supports the idea that unbalanced well flows feeding RO trains can lead to over pumping of the wells which supports accelerated degradation in water quality. It is possible that this is the concern with the existing well and its historical water quality performance. Our approach is to match the treatment system feed rates as close as possible to the well production, affording a simplified well operating matrix that is "married up" with the RO system. While it makes operation simplified, it also reduces stress on the well formation leading to long term stable water supply, even on wells that have shown degrading performance in past operation. The Kimley-Horn team feels this approach will support long-term operation of this facility and sustainable water withdrawals from the aquifer supply.

Kimley-Horn is one of the first engineering firms to implement the high-efficiency pressure exchanger energy recovery system on brackish raw water RO systems and we know the integration techniques needed to recover the maximum energy under operation.

The largest operational expense with membrane treatment is power. Energy recovery is also a key element of consideration in all RO systems with elevated TDS levels. Having implemented all types of energy recovery devices (ERDs), Kimley-Horn understands the complete application of each type of device and where each device functions the best. From high efficiency pressure exchangers used for high TDS waters, to pelton wheel energy recovery turbines used for brackish water supplies, our understanding of these devices and their functionality will offer the County staff a detailed explanation of each alternative, its effectiveness, and recommendation for the performance specification to reduce the overall energy expense for the day-to-day facility operation. Kimley-Horn is one of the first engineers to implement the high-efficiency pressure exchanger energy recovery system on brackish raw water RO systems and knows the integration techniques needed to recover the maximum energy under operation. Raw water qualities in the low brackish range often support a pelton wheel energy recovery turbine due to the pressure differential between the stages. At TDS ranges below this level, energy recovery is typically not economical and does not pay for itself within a 10-year typical evaluation period. Implementation of ERDs also helps add flexibility to address changes in raw water quality through the ERDs effective boosting of 2nd stage feedwater pressures as TDS increases. When considering ERDs for treatment, it is important to consider the bigger picture of the whole facility. Concentrate disposal may require additional energy to transport the waste stream to a disposal location and permeate may need to be pressurized into a degasification tower for hydrogen sulfide removal. Our team has implemented ERDs at membrane plants experiencing each of these scenarios, as well as a combination of these scenarios. We understand the impacts ERDs may have in the overall system efficiency not just within the membrane treatment train.

Eliminate Concentrate Booster Pumps

There are several facilities that have implemented energy recovery with direct disposal to a deep injection well without any concentrate disposal pumping systems. This is critical to long-term maintenance as the concentrate stream is of the most corrosivity within the membrane treatment train. Additional storage and pumping of the concentrate requires plastic storage tanks and highly corrosion resistant metals to enable successful operation. The corrosion resistant metals typically double or triple the cost of concentrate pumps so it is important to eliminate the concentrate pumps where applicable. Our team designed recent upgrades to two membrane treatment facilities to incorporate energy recovery devices while leaving enough concentrate energy to maintain the direct, hard-piped connections to the deep injection wells, eliminating the need for any concentrate booster pumps. Whether the disposal location is deep injection well, surface water disposal, or another means of blending for beneficial use, Kimley-Horn understands the need to make sure enough pressure remains within the concentrate stream post membranes in order to transfer the solution to disposal without costly, corrosion resistant pumps. Hard piping to disposal sources also requires cross connection control such as reduced pressure principle backflow devices (RPZ's) or an air gap

when comingled with wastewater effluent at the deep injection wells or reclaimed water blending. Whether the system design includes ERDs or not, our experience with in-line concentrate booster pumps is that they can complicate operations, waste energy, and are an unnecessary capital expense if the overall system is designed from a wholistic perspective.

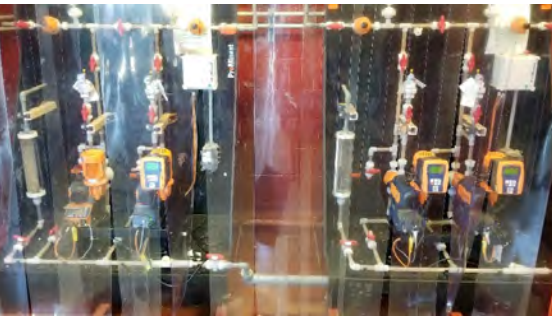
Our approach is to provide the County a membrane facility that is consistent and reliable in operation around your water quality in the existing well.

Importance of Membrane Selection

Currently, there are seven, reputable membrane suppliers providing NF and RO membrane elements to the water treatment industry. Only three to four of these membrane manufacturers have long-term, full-scale brackish water membrane treatment experience treating similar TDS groundwaters. As such, understanding their performance, knowing the selection criteria critical for long-term application, and related warranty conditions is critical in designing the membrane treatment system. In considering lesser experienced membrane suppliers, evaluating their water quality testing experience is key to achieving long-term compatibility with the well water quality anticipated from the rehabilitated or new water supply wells. These newer manufacturers may be considered for installation provided the proper understanding of their performance characteristics and integral knowledge of the element's construction is assessed. Our team understands membrane selection issues and is fully versed in current industry practices, affording the County no learning curve with our team. Kimley-Horn has specified membrane elements in both the performance specification procurement and competitive bid procurement, so we're well-versed in the options for obtaining the correct membranes for the specific application.

Kimley-Horn's decades of membrane pilot testing, design, and operating experience affords us the ability to craft membrane selection to prevent scaling and fouling of membranes further reducing your overall operating expense and labor input into the facility. Establishing operating parameters in the design of the membrane system and understanding the importance of pretreatment systems is critical in preventing rapid and short-term decline in membrane treatment systems. Our approach is to provide the County a membrane facility that is consistent and reliable in operation around your water quality in the existing well.

POST-TREATMENT SYSTEM



RO Systems similarly sized to the Colorado Acres WTP, are often specified and procured as noted in the Addendum to the RFQ. Since we have executed several of these projects and integrated them into the overall treatment facility, we understand the importance of post treatment stabilization that is often hard to specify and obtain from a single supplier. Also, many of the suppliers that provide membrane treatment systems specialize in membranes and typically allow a general contractor or other entity to implement a calculated and engineered finished water stabilization system.

It is with this experience that Kimley-Horn places a high emphasis on the post-treatment systems as they are often overshadowed by the membrane system. We understand that these components may

be equal or more important than the treatment system itself for some applications. Membrane product water, called permeate, requires stabilization since it is very soft and can be aggressive toward metals and other loosely bonded ions. These brackish membrane systems are designed to remove sodium and chloride but also removes hardness and alkalinity in the process. These parameters are useful in helping to stabilize the finished water and prevent corrosive waters that leach out iron, lead, copper, and many other elements when exposed through direct contact or when coatings are nicked or scratched. For batch loads of finished water supply, corrosion control isn't as critical to the operation as the finished water is not be distributed through aged service lines made of lead, copper, and other corrosion intolerant materials. When distribution systems, or the potential for distribution system connection exists, corrosion control is critical to compliance and certainly the health and safety of consumers of the drinking water. As observed in the Flint, Michigan water crisis, utilities must look at the whole picture of their drinking water system from the source to the tap and understand the implications of improved treatment has on the bigger picture. In our vast experience with membrane treatment yielding very aggressive permeate water, Kimley-Horn has addressed post treatment stabilization in a variety of ways to prevent regulatory violations and maintain public health and safety through the drinking water supply.

Our approach is to minimize operator interaction with the post treatment system and minimize the potential for failure to achieve finished water stability.

Stabilization of Permeate Critical in Preventing Distribution System Lead and Copper Corrosion

As noted above, permeate water is very corrosive in nature and finished water stabilization must be considered after membrane treatment. Finished water stabilization can include chemical addition using carbon dioxide, lime, sodium hydroxide, and/or corrosion inhibitors. For systems similar in size to the Colorado Acres Treatment Facility, our approach is to minimize operator interaction with the post treatment system and minimize the potential for failure to achieve finished water stability. In some instances, a raw water blend around the RO system offers the stability to meet alkalinity and hardness requirements without exceeding the regulatory organics limits. The limiting consideration with raw water blending is to limit the organics and color that are carried with the blend water. Our experience includes similar blending techniques where hardness and alkalinity from the groundwater supply is used to provide cost-effective stabilization of the RO permeate water without the need for any corrosion inhibitor, carbon dioxide, sodium hydroxide, or lime. In other cases where the raw water organics loading is elevated, we've utilized a side-stream ion exchange processes to selectively remove the organics from the blend stream while allowing the stabilizing ions pass through to result in an efficient process and stabilized finished water quality. This system provided the low-cost stabilization of the permeate stream without the use of multiple chemicals to achieve the effective stability of their finished water. As you can see, the Kimley-Horn team has extensive experience in delivering water that is stable and non-corrosive through a variety of techniques that offer Webb County a cost effective and efficient solution for the Colorado Acres Treatment Facility.

Our approach is to utilize a new clearwell designed to attain 4-log inactivation of viruses prior to transfer to the finished water storage tanks.

Common Clearwell to Allow Proper Mixing and Stabilization – Eliminates Pumping Twice

Where sulfide is present, typical removal techniques include degasification to remove the "rotten egg" smell that can be dissolved in the raw water. In this case, clearwells often collect the degasified water where a pump can transfer it to the finished water storage tanks. This is a common practice and has been utilized on almost all systems treating for elevated sulfide levels. Alternatively, chemical treatment oxidation of sulfide has been utilized where water quality permits its use. Depending upon the raw water levels of sulfide, oxidation and filtration of the sulfides prior to disinfection may eliminate the need for a clearwell and additional pumping units. While it is less commonly used, it must be considered where applicable installations exist.

When considering a clearwell operation, proper mixing, allowance for CT (chlorine residual and contact time), chemical stabilization where applicable, proper material selection of construction, and energy are the key elements to the long-term life of a clearwell. Our approach is to utilize a new clearwell designed to attain 4-log inactivation of viruses prior to transfer to the finished water storage tanks. The degasified permeate water is very aggressive prior to being stabilized and therefore requires proper coating of any surface that the permeate encounters. If raw water blending is deemed as a viable option for permeate stabilization, it is likely that the blending will occur prior to sulfide treatment. The blended water achieves stability and requires a lower level of coating than permeate water. Our team is well-versed in both applications and understands the functionality of these system components for long-term operation and maintenance friendly designs.

Hydrogen Sulfide Critical Parameter

As noted in the RFP, hydrogen sulfide, a volatile phase of total sulfide, is a key water quality parameter that needs careful attention in measuring and subsequent treatment and removal design. Kimley-Horn's approach and experience with hydrogen sulfide has always been to conduct field testing of the raw water supply since it results in direct correlation with membrane permeate sulfide concentrations. The pH dependent sulfide phases offer ranges in rejection of zero membrane rejection at pH ranges below 5.5 and partial to full rejection as the pH ranges up to double digit units. Regardless of the raw water pH, hydrogen sulfide must be a key consideration in the membrane treatment system. Given the location of the water plant and its neighboring properties, the most straight forward treatment of the hydrogen sulfide presents a forced draft aeration degasifier with a vertical stack for discharging the hydrogen sulfide laden off-gas at this facility.

Standby Degasifier Not Needed

Since degasifiers are static and don't include rotating equipment, there is no need or permit requirement for a standby degasifier for the RO plant at this facility. Like membrane trains, full size spares are not necessary and increase capital expense without adding useful capacity within the system. Kimley-Horn is well-versed in degasifiers and regulatory requirements when hydrogen sulfide is present in these systems.

OPERATIONS

Our approach to operations is to keep it simple. We've found that operations staff's understanding and becoming comfortable with the new process is critical to worry-free system function. Conventional treatment operation which operations teams are typically trained to operate is far different than membrane treatment systems, which require intensive monitoring and instrumentation. Although the membrane process is designed to operate best under steady state conditions, the overall process can be daunting for operations staff given the new material and minimal exposure. Having instructed membrane operations courses for industry associations for over 17 years, **Lance Littrell** brings an intimate knowledge of not only operation of membrane treatment systems, but the actual teaching experience for similar type systems. If needed, our team is highly qualified to provide hands-on training of the treatment process, functionality and impact of each process component, and detailed operational staff training on the installed equipment. It is because of this training and the challenges we are often called to fix when operators haven't been properly trained, that we bring this focus to the design efforts and recommend training of operations staff where previous experience is non-existent. As such, we pride ourselves in designing systems with "operations in mind" and provide a lot of hands-on-experiences with staff while going through the design or specification, permitting, startup, and testing of these facilities. This mindset is critical when specifying membrane systems for procurement. Suppliers tend to reduce costs by limiting access and cramming equipment into compact spaces. While this is efficient for capital expenses, it renders large expenses in labor and maintenance fees when operating and performing routine maintenance on the equipment.

With each new membrane facility, we suggest instrumentation technicians be included with the overall program to make sure they have an understanding of the equipment's operational importance as well as getting their input on specific manufacturers that provide support services. Since the system is instrumentation intensive, a technician familiar with instrumentation, calibrations, programmable logic controllers (PLC), human machine interface (HMI) software, and supervisory and data acquisition systems (SCADA) will be an integral part of the facility. If these technicians aren't currently employed within the County's staff, several suppliers can be contracted on an as-needed basis to support instrument calibrations and routine maintenance of the control system. We've found that smaller systems require fewer actual hours and may not require a full-time staff member present. In these cases, an on-call service technician can serve the County for significantly less expense than a full-time employee.

As startup and operational testing commences, our team will continue to partner with the County, offering education for Staff about all elements of the water treatment plant when necessary. Understanding the intricacies and interaction of the different systems is critical to startup and operational testing of these facilities. Understanding all the disciplines, including structural, process, chemistry, electrical, hydraulics, SCADA systems, etc., is critical to the success of a membrane treatment system. Our team, along with **Lance Littrell's** experience in making these facilities run at their optimum performance, is unmatched both locally and across the nation.

Our approach to operations is to keep it simple. We've found that operations staff's understanding and becoming comfortable with the new process is critical to worry-free system function.

Kimley-Horn's professional staff has extensive experience in construction administration and will keep the contractor on task, on schedule, and within your budget.

CONSTRUCTION PHASE SERVICES

Kimley-Horn's professional staff has extensive experience in construction administration and will keep the contractor on task, on schedule, and within your budget. We have included **Ryan Sowa** and **Mario Valdez** on our proposed team to provide construction phase services. They both sit in our San Antonio office and are available to visit the plant or meet with the County on short notice. Our experience with specified systems includes several step submittal process to ensure that the finished product will meet the performance intent and Webb County will get the quality of equipment that has proven the test of time. This resume of proven projects will result in the delivery of a quality project that will make both the County and Kimley-Horn proud.

Our client support includes establishing financial controls to track contractor progress; review of shop drawings and product submittals; answering questions from the contractor, subcontractors, and suppliers; reviewing payment applications; and making recommendations. We work very hard to make sure our clients' interests are kept first and foremost while performing our observations in the field. Because the same engineers that designed the project will be partnered with field representatives, we can quickly determine whether the contractor is straying outside of the boundaries of the plans and specifications. This allows us to make quick corrections before the project heads down the wrong path and has contributed to our many recent successes on construction projects that have implemented our designs.

Best Practices

REGULATION COMPLIANCE

All successful design firms must remain abreast of changes to applicable codes, standards, and regulations as they apply to each specific discipline. Kimley-Horn is no exception. Our civil engineering and consulting professionals refer to FDEP, EPA, FDOT, and USACE (to name a few) codes, standards, and regulations pertaining to all site planning and design assignments we undertake. Administration of many of these applicable codes, standards, and regulations has been delegated to state and local regulatory agencies.

VALUE ENGINEERING

Kimley-Horn's value engineering philosophy is to provide constant value engineering by focusing on better decisions, better information, better analysis, cost reductions, increased productivity, and accurate deliverables throughout all project steps. Value engineering is a key factor for developing successful projects that transition from study to design and design to construction. The challenges associated with each project task are solved creatively and effectively and each step is reviewed by the most qualified professional to ensure the highest level of value. Kimley-Horn has also worked with many municipalities and governmental agencies to provide peer reviews and value engineering reviews.

Our team's expertise can be applied to designs completed or partially completed by other engineering companies. Our experience in all facets of municipal work can be applied to any existing project with positive results and added value to the County. The common goal of the Kimley-Horn team is to provide the County with the most value throughout every aspect of each project assignment. **As seen on page 33 of our Project Experience Section, Kimley-Horn helped the Town of Jupiter save over $600,000 through utilizing $10 million in owner-purchased equipment on the 15.0-MGD Nanofiltration Water Treatment Plant (WTP) Construction Phase Services project.**

Kimley-Horn understands your priorities and what you expect from the value engineering process. Construction projects face many challenges:

The common goal of the Kimley-Horn team is to provide the City with the most value throughout every aspect of each project assignment.

budget constraints, environmental impact, user expectations, and quality, just to name a few. Applying the value engineering methodology to the design and implementation of construction projects can provide the following benefits:

- Reduced project construction costs
- Decreased operation and maintenance costs
- Improved project schedules
- Increased effective use of resources

The process can be a separate independent formal review or integrated into the design process. During design or review of a project, decisions comparing issues of cost, constructability, longevity, and ease of installation and maintenance, among others, are always present.

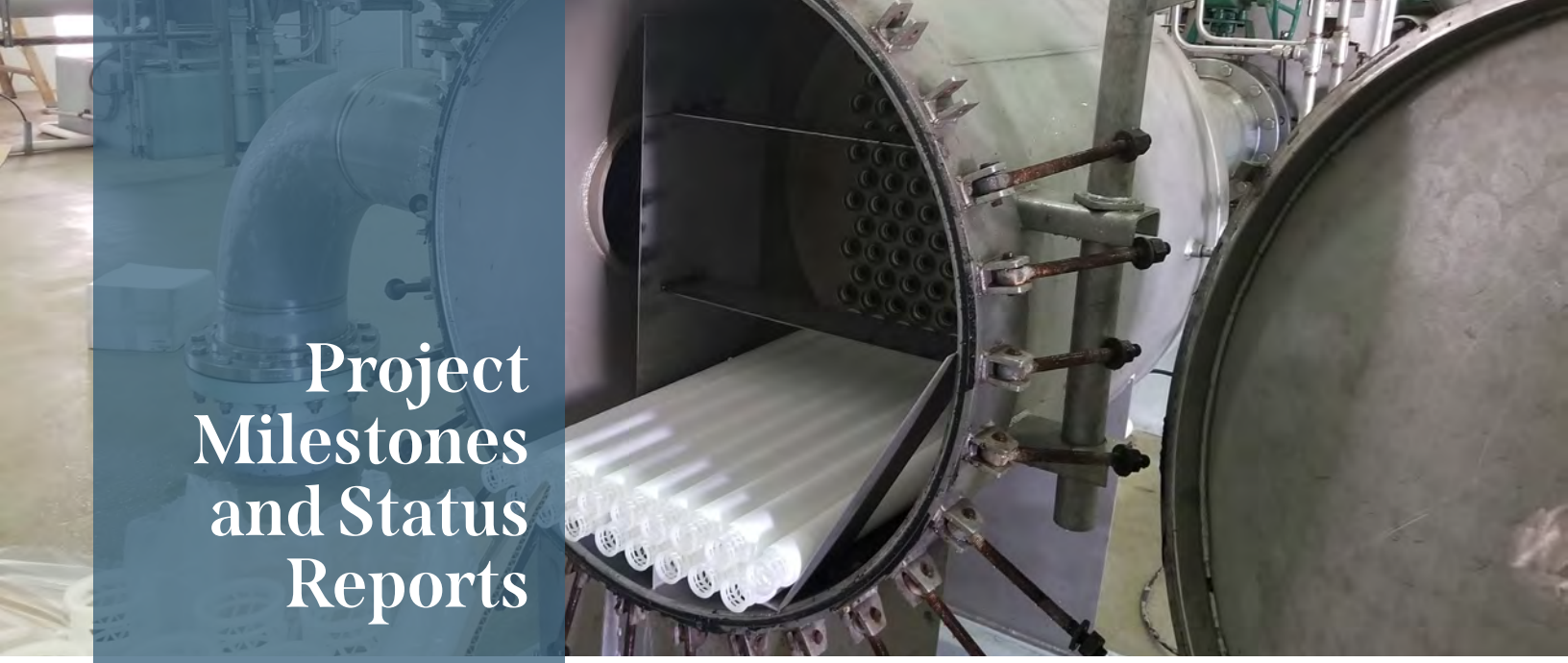
Our role in reviewing plans focuses on asking questions that allow decisions to be made that will increase return on the owner's investment by improving the value of the project. The best value is provided by the solution that maximizes the benefits being provided at the best price (considering initial and long-term costs) while meeting the overall design intent and the client's expectations.

COST SAVINGS

Our approach identified several areas where value engineering and real world experience with operations of membrane treatment systems can help save money for the County, but also help complete projects quicker. Some of these include:

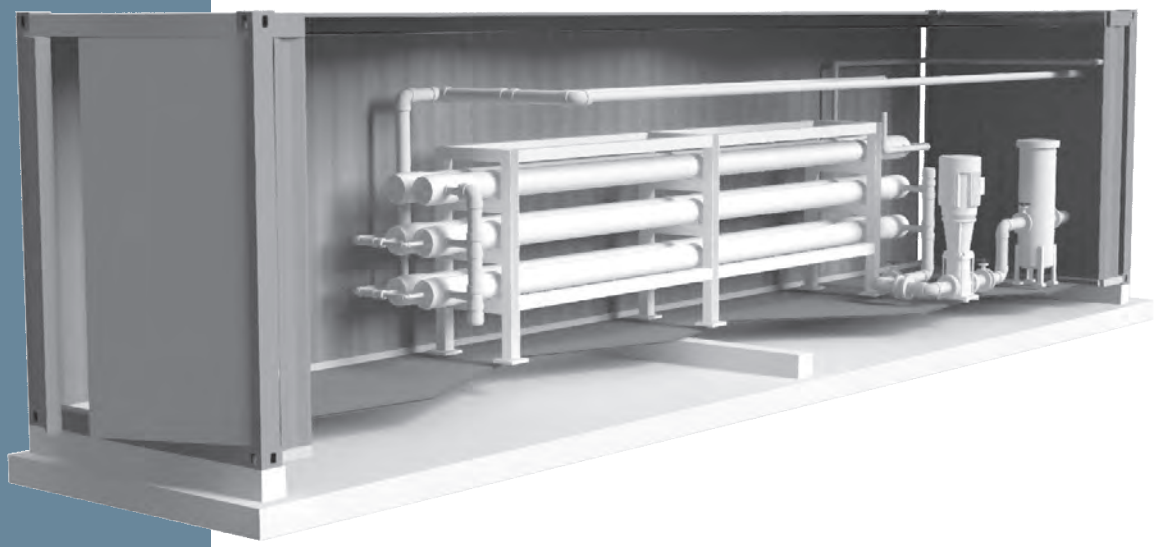
- Construct wells with 17.4-inch CertaLok SDR17 PVC casing in lieu of 20-inch FRP
- Eliminate 36-inch PIT casing
- Eliminate submersible type well pumps
- Eliminate sand separators through aggressive well development and smart well design
- Eliminate concentrate booster pump station
- Operate RO system at a higher recovery ~ 80% and reduce operating and capital costs
- Delete spare 2nd degasifier, blower and two-stage scrubber
- Gravity feed lime plant filtered effluent to eliminate duplicate pumping of treated product water
- Consider use of carbon dioxide (CO_2) as an alternate to sulfuric acid if stabilization is implemented

Implementing value engineering requires brainstorming, experience with similar decisions, and project understanding. The Kimley-Horn team presented to you in this proposal has the right tools to meet your needs. We recognize that value engineering is not an exact science—it comes from the experience earned from decades of hard work. It comes from "tried and true" experiences and finding a way to approach a project. Kimley-Horn's extensive experience with these types of projects provides us with the expertise required to maximize the benefits of the value engineering process.



Project Milestones and Status Reports

All schedules will be prepared using Microsoft Project using a Critical Path Method format to identify driving tasks. We will actively manage these driving tasks to maintain the schedule and minimize any potential impacts. Our team will establish an initial project schedule, showing all deliverables and milestones using Microsoft Project to prepare schedules and monitor project progress. Once the City's project manager has accepted the initial schedule, we will monitor progress and notify the City of any deviations to the schedule, prepare schedule updates as needed, and communicate accordingly with the City's project manager. For our deliverables, we will use Autodesk Revit to provide 3D renderings and videos. This will allow you have a good visualization of the plant, rather than just having a 2D drawing.



Licensure

Kimley-Horn and each of our subconsultants hold valid business and professional licenses and registrations that may be required by the State of Texas, the City of Laredo and Webb County.

Kimley-Horn and Associates:
Texas Board of Professional Engineers, Registration No. F-928

ABLE City LLC:
Texas Board of Architectural Examiners, Registration No. BR 3382

Cleary Zimmerman Engineers, LLC:
Texas Board of Professional Engineers, Registration No. F-9357

Intera Inc.:
Texas Board of Professional Engineers, Registration No. F-4722

JQ Engineering LLP:
Texas Board of Professional Engineers, Registration No. F-1294

Porras Nance Engineering:
Texas Board of Professional Engineers and Land Surveyors, Registration No. 10188800

Terracon Consultants Inc.:
Texas Board of Professional Engineers and Land Surveyors, Registration No. F-3272

Litigation History

- Please see attached litigation statement on the following page for our history of claims, litigation, arbitration and termination for a cause associated with any work contracted on any project in the past ten (10) years.
- Kimley-Horn has not had a contract terminated for cause or default. Please see attached litigation statement on the following page.
- Please see attached litigation statement on the following page for lawsuits, requested arbitration, or any litigation concerning contract activity within the last then (10) years.
- Please see attached litigation statement on the following page for judgments, claims, arbitration proceedings or lawsuits pending.
- Kimley-Horn has not filed for Chapter 7, 11, or 13 bankruptcies in the past ten (10) years. Please see attached litigation statement on the following page.
- Please see attached litigation statement on the following page for current litigation pending.

Litigation Statement

Kimley-Horn and its subsidiaries have provided services in all fifty states and numerous countries. Because of the many and varied projects we have completed, we are subject to various legal proceedings from time to time and in the ordinary course of business. From time to time, Kimley-Horn will file a lawsuit against a client for unpaid fees. We do not track these cases. It is not practical to provide a complete list as part of this proposal. None of the pending matters, if decided against Kimley-Horn, would have a material impact on our financial statements or impair in any way our ability to serve our clients. Generally, these matters are covered by insurance, and we consider them to be without merit. If you would like to discuss our legal matters in more detail, please contact Kimley-Horn's General Counsel, Richard Cook, at 919.677.2058.

Kimley-Horn has not had a contract terminated for cause or default, nor have we ever filed for bankruptcy. No judgments have been entered against Kimley-Horn, nor do we have any pending litigation in Texas. Legal proceedings in Texas in the last ten years are as follows:

Hellen Katrice Crain v. Medco Construction, LLC, et al: District Court of Tarrant County Texas 67th Judicial District; Case No. 067-246864-10; filed 2013; personal injury claim; Kimley-Horn dismissed; closed 2014.

Creekside at Stonebriar Homeowners Association, Inc. v. Conine Residential-Creekside, Ltd., et al: District Court of Collin County Texas 401st Judicial District; Case No. 401-01084-2008; filed 2009, property damage; Kimley-Horn dismissed; closed 2010.

Brandon Cruz v. JLB Contracting, LLC, et al: District Court of Dallas Texas 160th District; Case No. DC-18-19227; filed 2018; traffic accident; personal injuries claimed; dismissed; closed 2019.

EMJ Corporation v. Kohl's Department Stores, Inc. v. Kimley-Horn and Associates, Inc. (Third Party Defendant), et al: District Court of Dallas County Texas 44th District; Case no. DC-14-03351; filed 2014; property damage claim; mediated settlement; closed 2016.

Susan Foster v. Ed A. Wilson, et al: District Court of Parker County Texas 415th Judicial District; Case No. CV10-1511; filed 2010; personal injury claim; settled, closed 2011.

Brinnith Grays v. AUI Contractors, LLC, et al: District Court of Tarrant County Texas 342nd Judicial District; Case No. 34225504311; filed 2011; traffic accident, personal injury claim; settled; closed 2012.

Jeff Heath and Dori Heath v. City of Fate, et al: District Court of Rockwall County Texas 382nd Judicial District; Case No. 1-12-768; filed 2012; alleged property damage; settled 2013.

Province Real Estate Holdings, LTD. v. CH-B Trinity Falls, LP et al: District Court of Collin County 429th Judicial District; Case No. 429-03347-2014; filed 2014; property damage claim; Kimley-Horn dismissed; closed 2016.

Servitas, LLC v. 5G Studio Collaborative, LLC v. Clearview Design, LLC et al: District Court of Dallas County 298th Judicial District; Case No. DC-15-04377; filed 2015; alleged economic loss; settled; closed 2016.

J. Scott and Susan P. Simmons v. Kimley-Horn and Associates, Inc. (Third Party Defendant): District Court of Tarrant County Texas 141st Judicial District; Case No. 141-228829-08; filed 2009, property damage; settled; closed 2010.

Leigh Theres v CH Realty VI-TDC MF Fort Worth Waterslide LP, et al: In the 342nd Judicial District Court of Tarrant County, Texas; Case No. 342-313877-19; filed 2019; served 2020; alleged personal injury claim; dismissed; closed 2020

THIS FORM MUST BE INCLUDED WITH RFQ PACKAGE; PLEASE CHECK OFF EACH ITEM INCLUDED WITH RFQ PACKAGE AND SIGN BELOW TO COMFIRM SUBMITTAL OF EACH REQUIRED ITEM.

RFQ 2020-010
"Engineering Services for the Colorado Acres RO Water Treatment Plant Renovations Project"

☒ Proposer Information

☒A minimum of five (5) references with whom the firm has performed substantially similar services described in this document.

☒Conflict of Interest form (Form CIQ)

☒Certification regarding Debarment (Form H2048)

☒Certification regarding Federal lobbying (Form 2049)

☒Code of Ethics Affidavit

☒Proof of No Delinquent Tax Owed to Webb County

J.H. James, P.E.
Signature of person authorized to sign RFQ

5/22/2020
Date

Proposer Information

Name of Company: Kimley-Horn and Associates, Inc.

Address: 11700 Katy Freeway, Suite 800

City and State Houston, TX 77079

Phone: 346.888.3892

Email Address: michael.moriarty@kimley-horn.com

Signature of Person Authorized to Sign:

Jeff James, P.E.

Signature

Jeff James, P.E.

Print Name

Vice President

Title

Indicate status as to “Partnership”, “Corporation”, “Land Owner”, etc.

Corporation

5/22/2020

(Date)

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Kimley-Horn and Associates, Inc.

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

N/A

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 JH James, P.E.

Signature of vendor doing business with the governmental entity

5/22/2020

Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

CERTIFICATION
REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION FOR COVERED CONTRACTS

PART A.

Federal Executive Orders 12549 and 12689 require the Texas Department of Agriculture (TDA) to screen each covered potential contractor to determine whether each has a right to obtain a contract in accordance with federal regulations on debarment, suspension, ineligibility, and voluntary exclusion. Each covered contractor must also screen each of its covered subcontractors.

In this certification "contractor" refers to both contractor and subcontractor; "contract" refers to both contract and subcontract.

By signing and submitting this certification the potential contractor accepts the following terms:

1. The certification herein below is a material representation of fact upon which reliance was placed when this contract was entered into. If it is later determined that the potential contractor knowingly rendered an erroneous certification, in addition to other remedies available to the federal government, the Department of Health and Human Services, United States Department of Agriculture or other federal department or agency, or the TDA may pursue available remedies, including suspension and/or debarment.
2. The potential contractor will provide immediate written notice to the person to which this certification is submitted if at any time the potential contractor learns that the certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
3. The words "covered contract", "debarred", "suspended", "ineligible", "participant", "person", "principal", "proposal", and "voluntarily excluded", as used in this certification have meanings based upon materials in the Definitions and Coverage sections of federal rules implementing Executive Order 12549. Usage is as defined in the attachment.
4. The potential contractor agrees by submitting this certification that, should the proposed covered contract be entered into, it will not knowingly enter into any subcontract with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Department of Health and Human Services, United States Department of Agriculture or other federal department or agency, and/or the TDA, as applicable.

Do you have or do you anticipate having subcontractors under this proposed contract?
☒ Yes

☐ No

5. The potential contractor further agrees by submitting this certification that it will include this certification titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion for Covered Contracts" without modification, in all covered subcontracts and in solicitations for all covered subcontracts.
6. A contractor may rely upon a certification of a potential subcontractor that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered contract, unless it knows that the certification is erroneous. A contractor must, at a minimum, obtain certifications from its covered subcontractors upon each subcontract's initiation and upon each renewal.
7. Nothing contained in all the foregoing will be construed to require establishment of a system of records in order to render in good faith the certification required by this certification document. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
8. Except for contracts authorized under paragraph 4 of these terms, if a contractor in a covered contract knowingly enters into a covered subcontract with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, Department of Health and Human Services, United States Department of Agriculture, or other federal department or agency, as applicable, and/or the TDA may pursue available remedies, including suspension and/or debarment.

PART B. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION FOR COVERED CONTRACTS

Indicate in the appropriate box which statement applies to the covered potential contractor:

☒ The potential contractor certifies, by submission of this certification, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded form participation in this contract by any federal department or agency or by the State of Texas.

☐ The potential contractor is unable to certify to one or more of the terms in this certification. In this instance, the potential contractor must attach an explanation for each of the above terms to which he is unable to make certification. Attach the explanation(s) to this certification.

Name of Contractor	Vendor ID No. or Social Security No.	Program No.
N/A	56-0885615	RFQ 2020-010

Jeff James, P.E.
Signature of Authorized Representative

5/22/2020
Date

Jeff James, P.E.
Printed/Typed Name and Title of Authorized Representative

CERTIFICATION REGARDING FEDERAL LOBBYING
(Certification for Contracts, Grants, Loans, and Cooperative Agreements)

PART A. PREAMBLE

Federal legislation, Section 319 of Public Law 101-121 generally prohibits entities from using federally appropriated funds to lobby the executive or legislative branches of the federal government. Section 319 specifically requires disclosure of certain lobbying activities. A federal government-wide rule, "New Restrictions on Lobbying", published in the Federal Register, February 26, 1990, requires certification and disclosure in specific instances.

PART B. CERTIFICATION

This certification applies only to the instant federal action for which the certification is being obtained and is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federally appropriated funds have peen paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, or the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

2. If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with these federally funded contract, subcontract, subgrant, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions. (If needed, contact the Texas Department of Agriculture to obtain a copy of Standard Form-LLL.)

3. The undersigned shall require that the language of this certification be included in the award documents for all covered subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all covered subrecipients will certify and disclose accordingly.

Do you have or do you anticipate having covered subawards under this transaction?
☐ Yes
☒ No

Name of Contractor/Potential Contractor	Vendor ID No. or Social Security No.	Program No.
N/A	56-0885615	RFQ 2020-010

Name of Authorized Representative	Title
Jeff James, P.E.	Vice President

Jeff James, P.E.
Signature – Authorized Representative

5/22/2020
Date

WEBB COUNTY PURCHASING DEPT.
QUALIFIED PARTICIPATING VENDOR CODE OF ETHICS
AFFIDAVIT FORM

STATE OF TEXAS *

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF ~~WEBB~~ TARRANT *

BEFORE ME the undersigned Notary Public, appeared Jeff James, P.E., the herein-named "Affiant", who is a resident of Tarrant County, State of Texas, and upon his/her respective oath, either individually and/or behalf of their respective company/entity, do hereby state that I have personal knowledge of the following facts, statements, matters, and/or other matters set forth herein are true and correct to the best of my knowledge.

I personally, and/or in my respective authority/capacity on behalf of my company/entity do hereby confirm that I have reviewed and agree to fully comply with all the terms, duties, ethical policy obligations and/or conditions as required to be a qualified participating vendor with Webb County, Texas as set forth in the Webb County Purchasing Code of Ethics Policy posted at the following address: http://www.webbcountytx.gov/PurchasingAgent/PurchasingEthicsPolicy.pdf

I personally, and/or in my respective authority/capacity on behalf of my company/entity do hereby further acknowledge, agree and understand that as a participating vendor with Webb County, Texas on any active solicitation/proposal/qualification that I and/or my company/entity failure to comply with the Code of Ethics policy may result in my and/or my company/entity disqualification, debarment or make void my contract awarded to me, my company/entity by Webb County. I agree to communicate with the Purchasing Agent or his designees should I have questions or concerns regarding this policy to ensure full compliance by contacting the Webb County Purchasing Dept. via telephone at (956) 523-4125 or e-mail to the Webb County Purchasing Agent to joel@webbcountytx.gov .

Executed and dated this 14th day of May, 2020.

Jeff James, P.E.
Signature of Affiant

Jeff James, P.E.
Printed Name of Affiant/Company/Entity

SWORN to and subscribed before me, this 14 day May, 2020

VICKY BREWER
Notary Public, State of Texas
Comm. Expires 05-16-2022
Notary ID 129821969

Vicky Brewer
NOTARY PUBLIC, STATE OF TEXAS

PROOF OF NO DELINQUENT TAXES OWED TO WEBB COUNTY

Name Jeff James, P.E. owes no delinquent property taxes to Webb County.

Kimley-Horn and Associates, Inc. owes no property taxes as a business in Webb County.
(Business Name)

APHC, Inc. owes no property taxes as a resident of Webb County.
(Business Owner)

Jeff James, P.E.
Person who can attest to the above information

*** SIGNED NOTORIZED DOCUMENT AND PROOF OF NO DELINQUENT TAXES TO WEBB COUNTY.**

The State of Texas
County of ~~Webb~~ TARRANT
Before me, a Notary Public, on this day personally appeared JEFF JAMES, P.E., know to me (or proved to me on the oath of _____ to be the person whose name is subscribed to the forgoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office this 16 day of MAY 2020.

Notary Public, State of Texas

VICKY BREWER
Notary Public, State of Texas
Comm. Expires 05-16-2022
Notary ID 129821969

Vicky Brewer
VICKY BREWER
(Print name of Notary Public here)

My commission expires the 16 day of MAY 2022.

Client#: 25320 KIMLHORN

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/28/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Jerry Noyola	
Greyling Ins. Brokerage/EPIC 3780 Mansell Road, Suite 370 Alpharetta, GA 30022	PHONE (A/C, No, Ext): 770-552-4225	FAX (A/C, No): 866-550-4082
	E-MAIL ADDRESS: jerry.noyola@greyling.com	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : National Union Fire Ins. Co.	19445
INSURER B : Aspen American Insurance Company	43460
INSURER C : New Hampshire Ins. Co.	23841
INSURER D : Lloyds of London	85202
INSURER E :	
INSURER F :	

INSURED
Kimley-Horn and Associates, Inc.
421 Fayetteville Street, Suite 600
Raleigh, NC 27601

COVERAGES **CERTIFICATE NUMBER: 20-21** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Contractual Liab GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			5268169	04/01/2020	04/01/2021	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$1,000,000 $500,000 $25,000 $1,000,000 $2,000,000 $2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY			4489663	04/01/2020	04/01/2021	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$2,000,000 $ $ $ $
B	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DED X RETENTION $0			CX005FT20	04/01/2020	04/01/2021	EACH OCCURRENCE AGGREGATE $	$5,000,000 $5,000,000 $
C A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		015893685 (AOS) 015893686 (CA)	04/01/2020 04/01/2020	04/01/2021 04/01/2021	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
D	Professional Liab			B0146LDUSA2004949	04/01/2020	04/01/2021	Per Claim $2,000,000 Aggregate $2,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

For Proposal Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE