

**STATEMENT
OF
QUALIFICATIONS
FOR
UTILITY SERVICES**





INCLUDED IN THIS STATEMENT OF QUALIFICATIONS...

- Introducing Ourselves
- Key Personnel
 - Joel R. Colwell, P.E.
 - Ramon A. Herrera, P.E.
 - Terry L. McDaniel, P.E.
- Utility Services
 - Utility Coordination
 - Utility Engineering
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INTRODUCING OURSELVES...

We, at **Midtown Engineers, LLC** provide professional engineering services for the following sectors:

- **Private**
- **Governmental**
- **Energy**

We offer our clients the:

- **Benefit of Experienced Engineers**
- **Commitment to Meet Engineering Needs**

We offer the following certifications:

- **City of Houston M/DBE**
- **State of Texas HUB**
- **METRO Small Business**
- **Port of Houston Small Business**

Midtown Engineers was formed by the following work categories:

- **Utility Coordination**
- **Utility Engineering**
- **PS&E Roadway Design**
- **Traffic Engineering**

This was our core business when our firm began, and it is our core business today. Our engineering team has an average of 20 years of design experience, and because of this, Midtown Engineers exceeds the expectations of our clients.

KEY PERSONNEL...

Joel R. Colwell, P.E.

- Mr. Colwell has over 16 years of extensive knowledge in all areas of utility engineering, utility coordination, traffic, and transportation engineering. His experience includes utility coordination on multiple high profile design projects and includes managing all phases of PS&E work for a variety of clients including several governmental agencies and private utility companies. Typical projects include utility analysis, coordination and design for urban/rural PS&E projects. Tasks generally include utility research, utility correspondence, Subsurface Utility Engineering analysis, reimbursement or funding agreement negotiation and execution and utility conflict analysis. Mr. Colwell also can be responsible for traffic control plan development and construction details. Mr. Colwell has been involved with water, sanitary sewer, storm sewer, overhead and underground power distribution and transmission, telecommunications including fiber optic and copper cables, fuel oil and natural gas pipelines. Mr. Colwell is also pre-certified in many TxDOT roadway categories and has served as Project Manager on multiple roadway projects. This blend of knowledge especially qualifies him to perform all functions including Utility Coordination and Utility Engineering.

Ramon A. Herrera, P.E.

- Mr. Herrera has over 15 years experience in engineering with the majority of his expertise in utility engineering design, utility conflict resolution and utility construction coordination for large public improvement projects including: highways, light rail, commuter rail, and transit. Mr. Herrera has been involved in over 200 utility engineering projects. Typical projects include the design of water, sanitary sewer, storm sewer, overhead and underground power distribution and transmission, telecommunications including fiber optic and copper cables, fuel oil and natural gas pipelines. He is familiar with design requirements for various construction methods including open trench, auger boring and directional drilling. Mr. Herrera is also familiar with construction materials including steel, PVC, HDPE and others depending on the project requirements. He has worked with various environmental issues including tree preservation, wetland preservation and environmentally sensitive areas. Mr. Herrera also has multiple TxDOT pre-certifications for roadway design which complement the ability to analyze construction plans. Mr. Herrera has been a Task Leader for Utility Engineering and Utility Adjustment Monitoring and Verification on multiple projects.

KEY PERSONNEL...(CONT.)

Terry L. McDaniel, P.E.

- Mr. McDaniel has 33 years experience in general civil related projects with most of the experience related to traffic and transportation projects for TxDOT, toll road authorities, cities and counties. Typical projects include route studies and schematic design, Plans, Specifications & Estimates (PS&E) for urban/rural roads and freeways, bridges, traffic control plans, traffic studies, signal design, and drainage studies/design. Other assignments he assists with include the planning and execution of public meetings related to the development of transportation projects.

*Detailed Resumes Included

UTILITY SERVICES...

UTILITY COORDINATION

Our engineers have been providing Utility Coordination services for many years. Originating with our work representing private utility companies in negotiations and agreements with governmental agencies, our expertise has expanded to representing those same governmental agencies with private utilities. Utilizing our private utility expertise brings insight into the coordination task that is not commonly available. From utility research for project utility base maps to field analysis, Midtown Engineers has project experience to support any design task. Our engineers have coordinated with utilities of all types to develop reimbursement agreements on agency approved relocations requiring funding and approving utility adjustment plans for non-reimbursable projects. Our engineering team utilizes coordination, cooperation and communication to address and solve all issues on a project.

UTILITY ENGINEERING

Our engineers are considered experts in the field of Utility Engineering. Our Project Managers have been developing full PS&E packages for all types of utility projects for the last 16 years. The Midtown Engineers staff is known for its comprehensive analysis of existing utility systems and the determination as to where utility conflicts exist with proposed construction. Whether your project challenges are relocating water lines, sanitary sewer lines, storm sewer lines, fuel oil pipelines, natural gas systems, copper telecommunication, fiber optic lines, or underground electrical transmission and distribution facilities, Midtown Engineers is your answer to all of your utility challenges. Our Project Managers are familiar with design standards and criteria for open cut, auger bore and directionally drilled facilities including steel, PVC and HDPE.



TYPICAL PROJECTS

UTILITY COORDINATION

Our engineers have providing Utility Coordination services for many years. Whether your project is big or small, the Midtown Engineers staff is equipped to handle your Utility Coordination issues. Through the use of coordination, cooperation and communication we can identify and address all project issues. The Project Managers at Midtown Engineers combine their experience of utility engineering along with their experience in developing utility agreements to remedy all issues that may be presented on a project.

SAMPLE PROJECTS

- **Hardy Toll Road Extension, Houston, Texas** - Midtown Engineers, LLC was the Utility Coordinator for all private utilities within the 4 mile Harris County Toll Road Authority (HCTRA) project. The alignment of the proposed HTRE was down existing Union Pacific Railroad and City of Houston right of way with various types of fiber optic duct banks, overhead and underground electrical distribution, natural gas distribution lines and fuel oil pipelines. The Midtown Engineers staff was responsible for conducting meetings, obtaining existing facility maps, recommending and coordinating Subsurface Utility Engineering (SUE), developing and analyzing potential conflict lists and reviewing proposed conflict resolutions for accuracy and cost effectiveness. They were also responsible for developing Utility Reimbursement Agreements and reviewing estimates and proposals for all adjustments. Midtown Engineers was also responsible for meeting with the project design team and client to report findings and discuss project progress.
- **Light Rail Expansion, Houston, Texas** - – Midtown Engineers staff, acting on behalf of the Metropolitan Transit Authority of Harris County, Texas (METRO), was responsible for developing Single Point of Contact information with 17 private utility companies and developing Master Cooperative Agreements (MCA's) with each. As an extension of the METRO staff, they negotiated the language and conditions for each MCA for engineering and construction activities in conjunction with the 27 miles of proposed light rail construction within the METRO Solutions Phase 2. Each utility company was contacted and researched regarding existing facilities and methods of engineering and construction for all proposed improvements. This information was incorporated into the MCA and approved by both parties' executive and legal representatives. In addition to the MCA responsibilities, Midtown Engineer's personnel was the Utility Coordinator for the Uptown Corridor and Intermodal Facility projects. They were responsible for verifying all utilities were shown properly, identified and addressed by the consulting engineering team responsible for that corridor. In addition, Midtown Engineers was responsible for providing independent construction estimates outside of the design team and utility owner for cost verification.

- **Grand Parkway Toll Road, Houston, Texas** - – Midtown Engineers is the Utility Coordination Consultant for three of the four Design Segments of the Proposed Grand Parkway by the Harris County Toll Road Authority (HCTRA). Midtown Engineers is responsible for performing site visits to identify all public and private utilities within the project limits. They also will evaluate the existing utilities and develop a SUE Work Plan for Subsurface Utility Engineering (SUE) necessities and evaluate the data as it is obtained for additional requirements and incorporate the findings into the utility base file. The Midtown Engineers staff will initiate contact and meet with all utilities within the corridor to verify existing conditions and discuss any potential conflicts that need to be addressed prior to project construction. Coordination, right of entry, permitting and correspondence with all Municipal Utility Districts (MUD's), Texas Department of Transportation (TxDOT), railroads, municipalities, etc. will be handled by Midtown Engineers staff. They will also assist the utility companies in the preparation of funding agreements and agreements associated with the occupation of street right of way. Midtown Engineers is also responsible for developing and submitting HCTRA Utility Assemblies which include all forms supplied by Harris County, a copy of the recorded easement Deed, plans and a construction estimate.
- **North Corridor/Intermodal Terminal Light Rail Expansion, Houston, Texas** – Midtown Engineers was the Utility Coordinator for the entire 5.28 Miles of the METRO North Corridor LRT Extension. Responsible for coordination between METRO/Houston Rapid Transit and 14 private utility companies and 7 utility sub-consultants within the project corridor. All subsurface utility engineering (SUE) plans and coordination were handled for the corridor. Additionally, Midtown Engineers staff was responsible for field visits, conflict analysis, plan review, permitting and compliance with TxDOT, METRO and City of Houston requirements.
- **METRO GPC** – Midtown Engineers was responsible for utility engineering and utility coordination for the METRO commuter rail projects on US 290 and US 90A. Existing utility base maps, a SUE Work Plan and potential utility conflicts for the entire 8.3 mile corridor along US 90A. US 290 included a 44 mile corridor study with various options where Midtown Engineers provided utility conflict analysis and utility cost estimates for each alternative.

UTILITY ENGINEERING

Our engineers are considered experts in the field of Utility Engineering. Our Project Managers have been developing full PS&E packages for all types of utility projects for the last 15 years. The Midtown Engineers staff is known for its comprehensive analysis of existing utility systems and the determination as to where utility conflicts exist with proposed construction and which utilities are in conflict. Our engineers have been designing utility relocations for one of the largest power companies in the United States for over 15 years. Whether your project challenges are relocating water lines, sanitary sewer lines, storm sewer lines, fuel oil pipelines, natural gas systems, copper telecommunication, fiber optic lines, or underground electrical transmission and distribution facilities, Midtown Engineers is your answer to all of your utility challenges.

ELECTRICAL DISTRIBUTION AND TRANSMISSION PROJECTS

- **Light Rail Expansion (North Corridor/Intermodal Terminal), Houston, TX** – Midtown Engineers staff served as the Project Manager for utility engineering and utility coordination on the 5.28 mile METRO light rail project beginning at the north end of Downtown Houston. They managed and coordinated 14 private utility companies, public utilities and 7 utility sub consultants throughout the project design phase. As part of the conflict analysis, the Midtown Engineers staff developed SUE work plans and coordinated two SUE providers who performed over 300 Level A SUE investigations within the North Corridor. They were responsible for field visits, conflict analysis, utility plan review, permitting, interagency coordination and compliance with TxDOT, METRO and City of Houston design criteria. They worked closely with the utility companies, consultants and facility provider to resolve all utility conflicts. In addition, Midtown Engineers provided interdisciplinary reviews to avoid conflicts between utility adjustments and proposed roadways, structures, rail systems, stations and various existing facilities. Additionally, Midtown Engineers was the design engineer for various fiber optic relocations along the corridor.
- **Bertner Road 138kV Transmission Line Relocation, Houston, TX** - Provided detail design and coordination efforts between CenterPoint Energy Transmission Engineering and the Texas Medical Center design consultant for plan and profile design, traffic control plans and permitting for 2100 linear feet of 9-8" PVC concrete encased duct bank. The project required coordination with all existing facilities and additional work being designed for the street reconstruction and consisted of mostly open trench installation. However, 130 linear foot 42" x 42" box tunnel was design across Braeswood Street.
- **Buffalo Speedway—Upper Kirby District, Houston, TX** - Developed plan and profile drawings to relocate all overhead facilities within the project area to underground duct banks. All overhead power was relocated to an underground duct system including manholes with terminal poles offsite of the project.

Multiple telecommunication lines were relocated to a telecommunications duct bank that maintained the necessary connections and services throughout the project. Each private utility was researched and coordination was performed to assure all parties that the proposed design would maintain the same level of service for private utilities and accomplish the goals of the Upper Kirby District. The project required coordination with all existing facilities and additional work being designed for the street reconstruction.

- **Houston Downtown Street Reconstruction Projects, Houston, TX** - Joint projects for CenterPoint Energy, City of Houston, Downtown Management District and METRO. Performed design services for 18 street reconstruction projects in downtown Houston for approximately 35,000 feet of underground duct banks and hundreds of new or re-built manholes. Coordinated design with City of Houston, Harris County, TxDOT, AT&T, and CenterPoint Energy. Supervised the utility relocations and verified that utilities were adjusted/constructed in accordance with the utility permit, plans, specifications, City and METRO requirements, and contacted utility owners if discrepancies occurred.
- **Houston METRORail, Houston, TX** – Project for the CenterPoint Energy Houston Electric relocations required for construction of the Houston METRORail on Main Street and Fannin Street in Downtown Houston, Texas Medical Center and Reliant Park. The project consisted of adjusting manholes and concrete encased duct banks while minimizing impact on existing travel lanes. Responsible for review, design and permitting of all construction plans for the relocations. Responsible for communication and correspondence between CenterPoint Energy, Houston METRO and the engineering consultant responsible for the rail design. Verified that all facilities designed as part of the METRORail project were in compliance with City of Houston and METRO guidelines. Due to the fast-track rail construction schedule, we were responsible for construction sequencing and phasing to avoid the rail contractor's work zones. Detailed traffic control and pavement reconstruction drawings were also developed as part of the METRORail project.
- **IH 10 138kV Transmission Line Relocation, Houston, TX** - Managed the field surveying, route study development, plan and profile design, traffic control plans, permitting and construction management for the CenterPoint Energy relocation of the overhead tower mounted transmission facility to dual 9-8" PVC concrete encased duct banks. The project consisted of open trench, directional drilling and auger boring techniques. The 10 miles of duct bank were designed to avoid all proposed roadway features and existing and proposed utilities while complying with the TxDOT Utility Accommodation Rules. Coordination was conducted with TxDOT, General Engineering Consultant, roadway Section Design Consultants and all public and private utility owners involved with the project including telecommunications, gas, fuel

oil, water lines, sanitary sewers, storm sewers and any other facility within the project limits.

- **Fannin Street at Knight Road** – Design development for over 1600 linear feet of electrical distribution duct bank. Provided field and record drawing research, developed plan and profile construction drawings as well as traffic control plans and permitting through the City of Houston.
- **Texas Medical Center – Fannin St. at MD Anderson Blvd.** – Project included the engineering design of an underground electrical distribution duct bank within the Texas Medical Center. Reviewed record drawings, performed the design for CenterPoint Energy and coordinated the review and approval through the City of Houston. We coordinated with all utility companies and METRO to cross all facilities including the METRO Light Rail. We developed traffic control plans and street cut details.
- **Texas Medical Center – Holcombe Blvd. at MD Anderson Blvd.** – Project included the design of 100' of underground electrical distribution duct bank within the Texas Medical Center. Evaluated existing conditions and designed an underground electric duct bank within the City of Houston right of way along Holcombe Blvd. Coordinated approval with the City of Houston and developed all traffic control plans and street cut details.
- **IH 10 Electrical Distribution Underground Crossings, Houston, TX** – Provided adjustment monitoring, verification and design services for 42" directionally bored underground crossings and three dry bore crossings in relation to the Katy Freeway Expansion Project. Each of these facilities was designed and constructed in conformance with the TxDOT Utility Manual. The directionally bored crossings replaced existing aerial lines which were in conflict with new TxDOT facilities. Two of the dry bores were approximately 45 feet deep and required engineered excavation pits on both ends. Verified that the crossings were installed in accordance with the plans and specifications, TxDOT, municipal and CenterPoint requirements.
- **Westpark Toll Road Electrical Distribution Underground Crossings, Houston, TX** – Responsible for engineering design, inspection and construction management for over 20 directionally bored crossings for CenterPoint Energy Electric. Project duties included engineering design, utility coordination, permitting, scheduling, construction management and verification, and construction coordination/documentation including client representation at HCTRA coordination meetings. Provided utility conflict resolution during the construction phase of the project, as necessary.
- **US 59 Crossing at Brays Bayou, Houston, TX** - Project consisted of a directionally drilled crossing under U.S. Highway 59 and Brays Bayou in

Houston. Underground crossing replaced existing overhead power lines which did not meet TxDOT overhead clearance requirements. Crossing consisted of 18-5" and 6-3" HDPE type SDR-11 conduits in a 36" diameter hole with no casing. The bore had a total length of 1,200 feet with a maximum depth of 75 feet below grade. Verified that the directional bore was performed in accordance with the utility permit, plans, specifications, TxDOT and CenterPoint Energy requirements.

- **US 59 crossings at State Highway 6 and Williams Trace, Sugar Land, TX** – Provided utility engineering design services in support of two auger bored crossings for CenterPoint Energy Electric. The underground crossings replaced existing aerial lines which were in conflict with new TxDOT overpasses at State Highway 6 and Williams Trace. Final construction plans included plan & profile design, traffic control design, pavement restoration and construction details. Each location required conflict review, field surveying, design coordination and construction coordination under an accelerated schedule. Design and permit coordination were conducted with the City of Sugarland, TxDOT and public utility companies.

GAS PIPELINE PROJECTS

- **Kinder Morgan Texas Pipeline—North Freeway, Houston, TX** - Provided project development for an anomaly location under IH 45 at Sam Houston Tollway on an existing 30" natural gas pipeline. The anomaly location was determined to be located underneath the existing roadway. While leading discussions with TxDOT, it was determined that roadway cuts would not be allowed and the only apparent solution was to re-bore the entire IH 45 right of way. After reviewing the site conditions, Midtown Engineers recommended pursuit of an alternative option involving tunneling under the freeway from the outer separation. By utilizing this scenario with a tunneling contractor, the anomaly was reached and repaired. The anomaly was resolved at a fraction of the anticipated cost. This approach had never been attempted or approved by TxDOT in this area. The conceptual design, coordination and permitting was performed by Midtown Engineers.
- **H-10 Gas Pipeline Relocations for CenterPoint Energy, Houston, TX** - Provided utility engineering design services in support of gas pipeline relocations for CenterPoint Energy Gas. All facilities were designed to meet the TxDOT Utility Manual guidelines. The project limits were from IH-610 to SH 99 with a total length of 21.5 miles. Each of the 10 sections of the project required conflict review, Subsurface Utility Engineering (SUE) coordination, field surveying, design coordination, plan & profile development, traffic control plans, permitting from the City of Houston, TxDOT and/or various other cities and construction coordination. Design considerations were taken to avoid wetland and environmentally recognized areas. The total length of pipeline designed was over 113,000 linear feet of both plastic and steel pipe with diameters up to 16-inch (intermediate and high pressure). Design included valves, fittings, city gate stations, district regulator stations and hundreds of service connections (residential and commercial).
- **Homestead Road Gas Pipeline Crossing, Houston, TX** – Provided utility engineering design services in support of a directionally bored gas pipeline crossing for Daystar Oil and Gas. The crossing replaced an existing pipeline which was in conflict with new Harris County pavement and drainage facilities. Provided plan & profiles, traffic control plans and construction details in the final construction package. Design coordination and permitting were conducted with the Harris County Public Infrastructure Department and the roadway contractor, as necessary.
- **Kinder Morgan Texas Pipeline Rehabilitation, Houston, TX** - Project on Long Drive, Park Place and IH 45. The "smart pig" analysis and rehabilitation determination was performed by us to evaluate where the critical locations were for reconstruction. Performed the utility research required to develop and permit plan and profile drawings. The project involved 7 separate construction

sites including a 2000 foot 16" directional bore under IH 45 to replace the existing facility that was not accessible for maintenance. Each project location required a traffic control plan, pavement reconstruction drawing and details for rehabilitation. Verified that the adjustments were made in accordance with the TxDOT Utility Accommodation Rules.

- **Kinder Morgan Energy Partners Pipeline Rehabilitations, Houston, TX -** Provided utility engineering services to verify anomaly locations and develop construction plans to expose the existing pipeline through open cut or tunnel excavation. The anomaly locations were cased or removed during the construction process. All of the project locations required plan and profile and traffic control plans, as well as pavement reconstruction details where required. Each of the five project locations was permitted through City of Houston or TxDOT as necessary.

TELECOMMUNICATION PROJECTS

- **Port of Houston—Fiber Optic Installation for CARE and Jacintoport Terminals, Houston, TX** - Responsible for providing a complete construction package that includes 2.7 miles of new build fiber. The scope of services includes site investigations, conflict analysis, plan & profile design, traffic control plans, cost estimates, coordination and construction phase services. The project is predominately bored construction along Harris County right of way with multiple railroad and utility crossings. Per request from the Port of Houston, this project is set on a “fast track” design schedule.
- **Downtown YMCA—Pease Street, Houston, TX** - Provided project coordination and design development for Phonoscope. In advance of the opening of the new YMCA in Downtown Houston telecommunications facilities had to be installed. Asked to expedite the project by the YMCA, the project surveying, design and City of Houston permitting was performed. The project required 400’ of trenched and directional bored HDPE conduits. The project was completed within the requested timeframe by the YMCA.
- **METRO Light Rail—Uptown Corridor and North Corridor, Houston, TX** - Provided route analysis and complete relocation plans for all Phonoscope and TVMAX facilities within the corridors. The existing facilities were located and evaluated for potential conflicts with rail facilities and other public and private adjustments. All conflicting facilities were re-designed to avoid existing and proposed facilities. Additionally, coordination efforts between the rail design consultants and the telecommunication providers was handled. All components necessary for METRO and City of Houston approvals were designed.
- **West Fiber Route, Houston, TX** - Project consisted of route study and engineering design for 5 miles of conduit and fiber optic cable installation for CenterPoint Energy. The project consisted of topographic survey, field verification, engineering design and permitting. The project was designed to be open cut or directionally drilled depending on contractor preference and cost considerations. Existing facilities were evaluated at all locations involving public right of way and the project was permitted through the City of Houston.
- **Fiber Route Analysis: Webster to La Marque, Harris and Galveston County, TX** - Provide design routing layouts for 23 miles of buried conduit for fiber optic cable installation. As the initial phase of the project, potential routes were reviewed to determine availability of access, construction methods required and permitting requirements. Routing layouts were developed using aerial photos and appraisal district maps indicating ownership. The routing layouts will be used for future engineering plans for construction.

- **Center Street Fiber Optics Installation, Deer Park, TX** - Project consisted of the survey, design, utility research and coordination, review and permitting for approximately 1 mile of 4" conduit for Reliant Energy Communications. The project consisted of overhead, direct buried and directionally drilled installations. The project required coordination and research of underground and overhead facilities to evaluate available pole attachments space and cost/benefit analysis between overhead and underground installations. The project was reviewed, approved and permitted by the City of Deer Park and by all private utility companies within the project area.



CERTIFICATIONS



Midtown Engineers, LLC

TxDOT Precertification Matrix

Firm Sequence Number: 2947

Code	Description	Midtown Precert	Colwell, Joel Randall ESN: 2348	Herrera, Ramon A. ESN: 12088	McDaniel, Terry Lynn ESN: 2341
3.1.1	Route Studies and Schematic Design (Minor Roadways)	X	X	X	X
3.2.1	Route Studies and Schematic Design (Major Roadways)	X		X	X
3.3.1	Route Studies and Schematic Design (Complex Roadways)	X			X
3.4.1	Minor Bridge Layouts	X	X	X	X
3.5.1	Major Bridge Layouts	X	X		X
4.1.1	Minor Roadway Design	X	X	X	X
4.2.1	Major Roadway Design	X	X	X	X
4.3.1	Complex Roadway Design	X			X
4.4.1	Major Freeway Interchanges and Direct Connectors	X			X
7.1.1	Traffic Engineering Studies	X	X		X
7.2.1	Highway-Rail Grade Crossing Studies	X			X
7.3.1	Traffic Signal Timing	X	X		X
7.5.1	Intelligent Transportation Systems	X			X
8.1.1	Signing, Pavement Marking, and Channelization	X	X	X	X
8.2.1	Illumination	X			X
8.3.1	Signalization	X	X	X	X
8.5.1	Highway-Rail Grade Crossings	X			X
10.1.1	Hydrologic Studies	X			X
18.2.1	Subsurface Utility Engineering	X	X	X	
NLC	Utility Adjustment Coordination	X	X	X	
NLC	Utility Engineering	X	X	X	
NLC	Utility Adjustment Monitoring and Verification	X	X	X	

Additional Certifications

State of Texas Registered Engineering Firm #F-8934

State of Texas HUB Certification #12034521737000

METRO Certified Small Business

Port of Houston Certified Small Business