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**STATEMENT OF QUALIFICATIONS**



## THE FIRM

Piburn & Carson, LLC (P&C) is a land surveying and civil engineering firm built on a legacy of personalized client service, superior technical execution, and a dedication to delivering our client's vision. We quickly assimilate each project's scope and requirements. Our staff's relationships, spanning 30 years, enable us to quickly identify our roles and deliver contemporary, accurate deliverables. Our traditional approach is complemented by state-of-the-art technology that facilitates precise, up-to-date information.

Our network of clients encompasses national, state, and local public agencies, architects, consulting engineers, and private clients. We have specialized expertise in the needs of municipalities and private land developers with an emphasis on water and wastewater, hydraulics and hydrology, healthcare, and residential and mixed-use developments. As a certified Minority Business Enterprise (MBE), we augment a prime consultant's traditional team, enabling compliance with diversity requirements. P&C and its staff are precertified in 13 categories by the Texas Department of Transportation (TxDOT).

Active in the community, P&C staff are members of the Native American Chamber of Commerce, the Texas Society of Professional Engineers, and the Texas Society of Professional Land Surveyors.

Whether defining boundaries and providing site civil designs for new development, performing spatial surveys for condominium title documents, or guiding clients through municipal procedures and public meetings, our mission remains the same: to achieve yours.

**Piburn & Carson: define, design, deliver.**



## LAND SURVEY

The practice of surveying land is an integral part of defining human spaces. While the tools, techniques, and registration of property boundaries have changed, the basic human instinct to define personal territory remains unchanged. As the world's population has increased, so has the frequency and intensity of land disputes. The proper survey, mapping, and recording of land parcels can minimize or negate these challenges. The survey team is responsible for assessing parcels so that engineering designs can be prepared, performing construction staking to ensure proper construction, completing as-built surveys to document the completed facility, and providing legal descriptions of real property for tax and title registration.

The survey team is the first in and last out during the construction of a project. As technology has advanced, survey teams now use an array of complex digital and electronic measurement tools, including global positioning systems (GPS), geographic information systems (GIS), and computer-aided design (CAD) software programs to document and record property ownership.

Land surveying encompasses a variety of services, including:

- Construction Staking
- Boundary Surveys
- Elevation Certificates
- Topographic Surveys
- Route Surveys
- Horizontal and Vertical Control
- Cross Sections
- As-built Surveys
- Easement Documents
- Platting
- Condominium Mapping



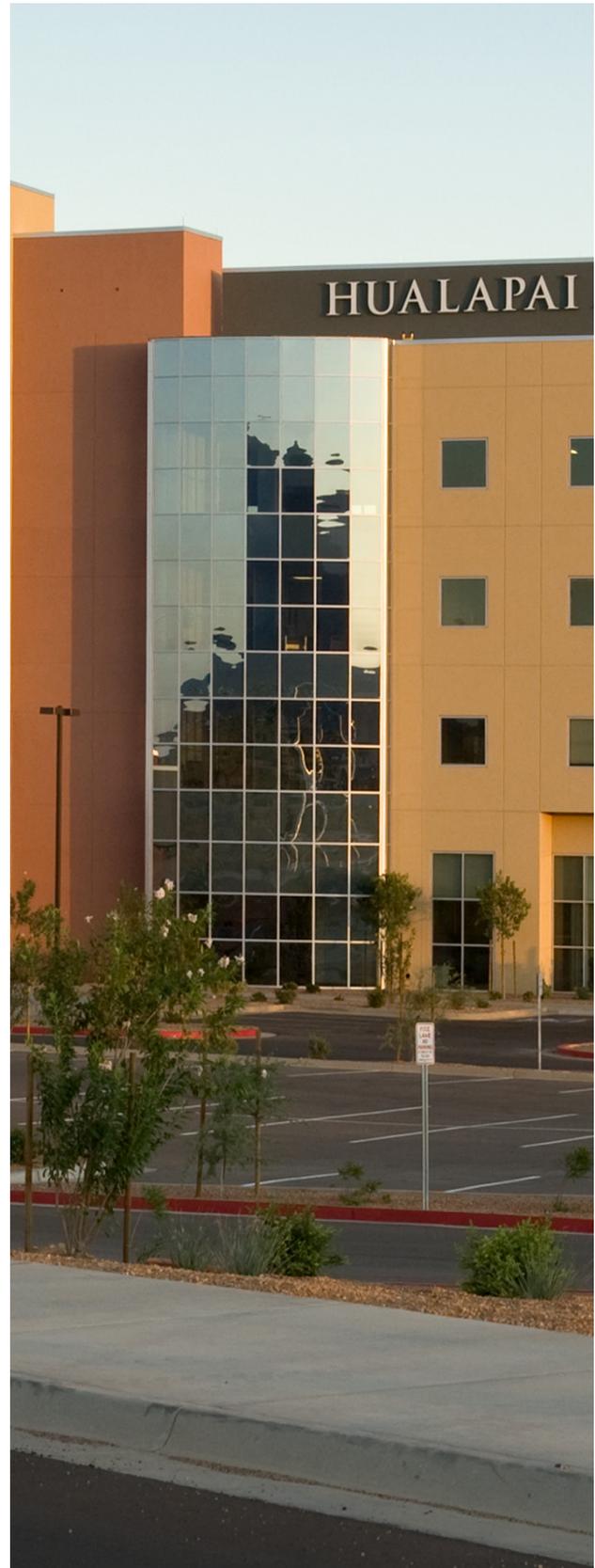
## CIVIL ENGINEERING

Embodying a wide range of services and disciplines, civil engineering is the process by which land is studied and prepared for development. While the tools and practices have evolved over the years, the basic need for solid foundations on which to build remains.

Whether studying the properties of soil or staging a parcel of land for a skyscraper, each development starts with the process of site development. An essential component of site development is the proper grading and layout of utilities required to support the planned facility. Roads and bridges, rail and transit lines, and buildings of all types require the services of a site civil engineer.

P&C specializes in site civil engineering for a variety of public and private land development services, including:

- Utility Layout
- Site Grading and Earthwork
- Site Storm Water Drainage
- Storm Sewer Design
- Storm Water Pollution Prevention Plans (SWPPP)
- Site and Street Paving
- Hydraulic and Hydrologic Assessments
- HEC Modeling
- Stormwater Conveyance
- Floodplain Reclamation Studies and Alteration Permitting
- Water and Wastewater Distribution Systems
- Lake and Detention Pond Design
- Federal Emergency Management Agency (FEMA) Permitting



## TOOLS

P&C uses the latest technologies to advance the design process. We use state-of-the-art survey tools, like the Trimble 5600 series robotic systems and 5800 series GPS receivers, communicating via the Texas Cooperative RTK Network positioning system. These technologies produce data that can be translated into any North American positioning datum, facilitating real-time surveying. We implement the most current updates from Eagle Point, Auto Desk, and AutoCAD Civil 3D design and documentation software, and we have streamlined our data collection processes to provide you the quickest, most accurate data collection for field-to-finish processing.

Our staff of in-house technicians seamlessly processes raw data directly from our six two-man field crews into preliminary and final plans.

Our site civil engineers incorporate survey data into designs for grading, paving, water and wastewater, and storm sewer designs.

## QUALITY

Our reputation is built on delivering quality products to our clients and constituents. We deliver our work products on-time and within budget, exceeding client expectations. Quality is not an act, it is a habit. Our field-to-finish processes have been perfected over time. Our long-term working relationships provide an extra measure of proficiency, reducing communication errors and down-time. Consistent internal control procedures ensure the quality of our deliverables.



## PROJECT EXPERIENCE

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## ONE ARTS PLAZA

**DALLAS, TEXAS (JOINT EXPERIENCE)** – Crown-  
ing the Dallas Arts District, One Arts Plaza was  
the first high-rise building built in downtown  
Dallas in 18 years. Completed in 2007, the  
distinct property initiated the mixed-use trend  
in downtown Dallas, providing retail, office,  
and luxury residential spaces in 24 stories. The  
first of three developments in the 10-acre Arts  
Plaza ensemble, One Arts was developed on  
four acres with an adjacent 6.5 acres designat-  
ed for the Two and Three Arts phases. Under  
distinct development contracts, Mr. Piburn and  
Mr. Carson provided land surveying and site  
civil engineering services for One Arts Plaza.  
Mr. Carson was responsible for all aspects  
of site civil engineering, including a civil due  
diligence study to identify requirements for  
off-site versus on-site utility development.  
Based on the results of the study, designs were

prepared for preliminary and final platting,  
paving, grading, horizontal control, on- and  
off-site water and wastewater, and storm  
sewer designs. A SWPPP also was prepared.  
Construction services included the preparation  
of documents, observation, and coordination.  
Mr. Piburn was responsible for construction-  
phase condominium mapping and currently  
provides post-construction, spatial surveys of  
individual condominium units for title docu-  
ments.



## GREENVILLE AVENUE CHURCH OF CHRIST

**RICHARDSON, TEXAS (JOINT EXPERIENCE)** – In the 1980s, the Greenville Avenue Church of Christ was located at Forest Lane east of US Highway 75. In close proximity to a flood plain and at the maximum allowable size in the acreage available, the church elected to purchase a tract of land in Richardson on which to construct a new complex. Working together at a previous employer and through independent engagements, Mr. Carson and Mr. Piburn managed civil engineering and land surveying components of this evolving property. Mr. Carson prepared the site civil design plans for the new facility, coordinating with the architectural firm. Mr. Piburn performed the perimeter boundary survey that incorporated all of the church parcels and street abandonments to update the plat.

Since the construction of the Greenville Avenue location in the 1980s, Mr. Carson has managed a variety of additional engineering projects, including the replatting of property to include recent property acquisitions; updating the master site and landscape plan; and preparing site civil designs for a parking lot expansion that included upgrading on-site and designing off-site storm sewer improvements and other underground utilities. Mr. Piburn's post-construction work includes the current replatting of the property to include recent property acquisitions, locating and mapping trees for the master site and landscape plan update, and coordinating with the engineering and architectural firms.



## US 380

### COLLIN COUNTY, TEXAS (JOINT EXPERIENCE)

– US 380 is an east–west highway that terminates in Greenville, Texas. US 380 passes through the northern area of the Dallas/Fort Worth Metroplex, including Denton and Collin Counties.

Originally commissioned in 1932, the highway has undergone numerous routing changes, upgrades, and maintenance. Mr. Carson designed and developed detailed traffic control plans, paving, grading, drainage, and bridge improvements for approximately 9.1 miles of 4- and 6-lane divided roadway. He also provided project specifications and costs estimates.

Mr. Piburn performed a topographic survey, prepared cross sections, and established the alignment of this 9.1-mile corridor.



## THIRD RAIL LOFTS

**DALLAS, TEXAS (FIRM EXPERIENCE)** – 1414 Main, part of the Third Rail Lofts concept, was originally designed by George L. Dahl in 1946. This ultra-modern, luxury loft conversion was a joint venture between the City of Dallas and a prominent Dallas developer. 1407 Main is the first new residential building on Main Street in 40 years and is 18-stories tall.

P&C, formerly Piburn and Partners, led the survey effort for this urban redevelopment project. Team members attended development meetings with the City of Dallas and were responsible for the initial survey that consisted of three tracts, encompassing the entire city block. Topographic work and utility research also were conducted for all surrounding streets (Main, Akard, Elm, and Four Way Place). Additional duties included preparation of the various spatial descriptions for use in

determining the air rights documents to separate ownership and platting. Team members also prepared the final as-built survey and supervised the interior floor as-built surveys from basement to roof.



## W DALLAS, VICTORY

**DALLAS, TEXAS (FIRM EXPERIENCE)** – This 33-story hotel was completed in 2006. It includes both guest rooms and condominium properties and houses a spa, gourmet restaurant, and the Ghostbar lounge. Located in Victory Park, an upscale entertainment district that is home to American Airlines Center, it is the first property in the luxury line with permanent residences. It features 252 guestrooms and 144 one- and two-bedroom condos. The W-Dallas also has a 3,000-square-foot state-of-the-art fitness facility, an infinity-edge swimming pool on the 16th floor overlooking downtown Dallas, and more than 11,000 square feet of space for meetings and social gatherings.

P&C, formerly Piburn and Partners, managed condominium mapping for five master units, consisting of hotel, retail, garage, mechanical, and residential units. The residential unit was

simultaneously mapped into 150 residential subunits for the north and south towers. Team members attended meetings with the owner and owner's council to ensure each component and common element of the condominium were properly mapped and that the owner's expectations and schedules were met. Additional tasks included conducting numerous detailed field inspections to ensure mapping reflected the final as-built conditions.



## CITY PLACE

**FORT WORTH, TEXAS (FIRM EXPERIENCE)** – This landmark project situated in downtown Fort Worth consists of two towers over first level retail situated on four city blocks of land bounded by Third Street, Belknap Street, Throckmorton Street, and Taylor Street. Constructed in 1976 and 1977 as The Tandy Center, this mixed-use facility initially featured twin 20-story towers, a shopping mall, and an indoor ice skating rink. The office buildings were constructed as the corporate headquarters of the RadioShack Corporation, formerly The Tandy Corporation. When RadioShack constructed a new headquarters facility, the company sold the complex.

Redevelopment of the center was announced in 2003, and it was renamed City Place. The development has over 78,000 square feet of retail space. P&C, formerly Piburn and Part-

ners, supervised all of the survey aspects of this complex project by coordinating with the City of Fort Worth, architect, client, and client's legal counsel to ensure the client's goals were met. These tasks included a complete as-built survey at street level, roof level of the retail structures, parking garage, and underground plaza. The firm also prepared three dimensional descriptions for the abandonment of air rights for Taylor Street and Throckmorton Street.



## REVERCHON PARK

**DALLAS, TEXAS (FIRM EXPERIENCE)** – Founded in 1915, Reverchon Park was named for Julien Reverchon, a well-known botanist who collected more than 2,600 species and 20,000 specimens of Texas plants. Modifications to the park were made in the 1920s and 1930s, including a signature grandstand, landscaping, picnic areas, baseball diamonds, playground equipment, and tennis courts.

In 1951, Reverchon Park expanded to 46 acres and, in 1975, the Reverchon Recreation Center opened. In 2002, Texas Scottish Rite Hospital for Children and the City of Dallas built a state-of-the-art playground accessible to children of all levels of ability.

P&C, formerly Piburn and Partners, performed topographic and tree surveys for approximately 30 acres in this historic urban park. Special

attention was given to accurately locating the historically significant features for preservation. The proposed enhancements included exposing subsurface utilities that were constructed in the 1930s. The heavy vegetation and severe topography presented numerous challenges in this high-profile project. Team members created and supervised the field data collection methodology to both accurately and respectfully acquire information for the timely deliverable to the landscape architect.



## FISHER ROAD PRIVATE RESIDENCE

**DALLAS, TEXAS (INDIVIDUAL EXPERIENCE)** – Mr. Carson provided civil engineering services to a private landowner during the creation of a private nature preserve. The ten-acre estate, traversed by Rush Creek, featured natural ponds, wooden bridges, and mature trees. The banks of Rush Creek were severely eroded and the wooden bridges were in disrepair. Mr. Carson managed topographic surveys on two of the multiple properties that were combined into the estate and performed a hydraulic and hydrologic analysis to ensure compliance with the City of Dallas' 100-year flood plain requirements. He completed and filed a floodplain fill permit and prepared and submitted a Section 404 Permit. Two traffic-bearing bridges and two new pedestrian bridges were designed and constructed to replace existing structures; all structures feature stone arches. In addi-

tion, a flood plain alteration notice was filed in advance of the replacement of the wooden bridges, the placement of boulders around the bridge abutments, and the mitigation of the creek bank erosion.



## TEXOMA MEDICAL CENTER

### DENISON, TEXAS (INDIVIDUAL EXPERIENCE)

– Texoma Medical Center is a \$96.2-million, 36-acre, eight-story, 370,000-square foot medical center in Denison, Texas. This new acute care facility will provide local medical care for Denison residents, fulfilling a long-standing community need.

Mr. Carson managed the preparation of site civil designs to redirect the existing drainage channel that crossed the site at the proposed location of the facility and for grading, paving, water, and sewer. The Texoma site was traversed by a large ravine. During the site civil design phase, he recommended enclosing this existing drainage channel with a pipe system. The use of this technique not only eliminated stormwater drainage issues on the property but also alleviated the potential for erosion and water seepage that could adversely im-

part the final building structure. A SWPPP also was prepared.



## **COPPELL AQUATIC CENTER**

### **COPPELL, TEXAS (INDIVIDUAL EXPERIENCE)**

– Mr. Carson provided survey and platting services and developed/prepared site civil plans for an outdoor aquatic center and 43,000-square foot recreation building within a floodplain area. Fill was used to raise the lot above the floodplain. Storm sewer systems were upgraded to control outfall into a wetland area and erosion control measures were taken to prevent stream bank damage after the installation of a clear span pedestrian bridge to connect the recreation center to a new parking lot.

# RESUMES

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## JOHN PIBURN, JR., R.P.L.S.

### PRESIDENT

Mr. Piburn has 39 years of experience in the field of land surveying for state agencies, municipalities, and private development clients. He has performed boundary, topographic, route, and as-built surveys; prepared elevation certificates; determined horizontal and vertical controls and cross sections; and condominium mapping. Mr. Piburn manages marketing efforts, quality control processes, and key projects.

#### PRIVATE LAND DEVELOPMENT

**W Dallas-Victory**—Dallas, TX (2004) Principal-in-Charge/Project Manager. This 33-story hotel, completed in 2006, includes both guest rooms and condominium properties. It features 252 guestrooms and 144 one-and two-bedroom condos. The W Dallas also has a 3,000-square foot state-of-the-art fitness facility, an infinity-edge swimming pool on the 16th floor overlooking downtown Dallas, and more than 11,000 square feet of space for meetings and social gatherings. Mr. Piburn managed condominium mapping for five master units, consisting of hotel, retail, garage, mechanical, and residential units. The residential unit was simultaneously mapped into 150 residential subunits for

the north and south towers. Mr. Piburn attended meetings with the owner and owner’s council to ensure each component and common element of the condominium were properly mapped and that the owner’s expectations and schedules were met. He conducted numerous detailed field inspections to ensure mapping reflected the final as-built conditions.

**Land Advisors/Celina**—Celina, TX (2009) Principal-in-Charge/Project Manager. As the DFW Metroplex continues to expand northward, a local development consortium assembled approximately 1,800 acres for multi-use development, including residential, school, and retail uses. Mr. Piburn managed the survey of 1,800 acres. He prepared the descriptions and exhibits for the creation of a water district to serve the development and exhibits to support proposed incorporation into the City of Celina.

**One Arts Plaza**—Dallas, TX (2006 to Present) Principal-in-Charge/Survey Project Manager: Crowning the Dallas Arts District, One Arts Plaza was the first high-rise building completed in downtown Dallas in 18 years. The distinct property initiated the

#### EDUCATION

Texas A&M University, 1968-1971

#### REGISTRATION/ CERTIFICATION

Registered Professional Land Surveyor, TX 3689, 1979

#### PROFESSIONAL SOCIETIES/ AFFILIATIONS

Texas Society of Professional Surveyors

American Congress on Surveying and Mapping

National Society of Professional Surveyors

Native American Chamber of Commerce

mixed-use trend in downtown Dallas, providing retail, office, and luxury residential spaces in 24 stories. The first of three developments in the 10-acre Arts Plaza ensemble, One Arts was developed on four acres with an adjacent 6.5 acres designated for the Two and Three Arts phases. Mr. Piburn was responsible for construction phase condominium mapping and currently provides post-construction, spatial surveys of individual condominium units for title documents.

**City Place**—Fort Worth, TX (2005) Principal-in-Charge/Project Manager. This landmark project located in downtown Fort Worth consists of two 20-story towers over first level retail located



on four city blocks of land bounded by Third Street, Belknap Street, Throckmorton Street, and Taylor Street. Constructed in 1976 and 1977, the office buildings were the corporate headquarters of the RadioShack Corporation, formerly The Tandy Corporation. When RadioShack constructed a new headquarters facility, the company sold the complex. Redevelopment of the center was announced in 2003 and renamed City Place. The development has over 78,000 square feet of retail space. Mr. Piburn supervised all of the survey aspects of this complex project by coordinating with the City of Fort Worth, architect, client, and client's legal counsel to ensure the client's goals were met. His tasks included a complete as-built survey at street level, roof level of the retail structures, parking garage, and underground plaza. He also prepared three dimensional descriptions for the abandonment of air rights for Taylor Street and Throckmorton Street.

**Third Rail Lofts**—Dallas, TX (2004) Principal-in-Charge/Project Manager. 1414 Main, part of the Third Rail Lofts concept, was originally design by George L. Dahl in 1946. This ultra-modern, luxury loft conversion was a joint venture between the City of Dallas and a prominent

Dallas developer. 1407 Main is the first, new, residential building on Main Street in 40 years and is 18-stories tall. Mr. Piburn led the survey effort for this urban redevelopment project. He attended development meetings with the City of Dallas and was responsible for the initial survey that consisted of three tracts, encompassing the entire city block. Topographic work and utility research also was conducted for all surrounding streets (Main, Akard, Elm, and Four Way Place). Additional duties included preparation of the various spatial descriptions for use in determining the air rights documents to separate ownership and platting. He also prepared the final as-built survey and supervised the interior floor as-built surveys from basement to roof.

**Greenville Avenue Church of Christ**—Richardson, TX (1980s to Present) Principal-in-Charge/Project Manager. In the 1980s, the Greenville Avenue Church of Christ was located at Forest Lane and Highway 75. In close proximity to a flood plain and at the maximum allowable size in the acreage available, the church elected to purchase a tract of land in Richardson on which to construct a new complex. Mr. Piburn performed the perimeter boundary survey that incorporated all of the church parcels

and street abandonments to update the plat. In addition, trees were located and mapped for use in updating the master site and landscape plan for the new facility, coordinating with the engineering and architectural firms.

#### **MUNICIPAL/UTILITIES**

**DWU Miscellaneous Water and Wastewater Main Relocations**—Dallas, TX (2005) Principal-in-Charge/Project Manager. In preparation for utility reconstruction over nine line segments, Mr. Piburn completed 18,000 linear feet of topographic and as-built surveys within both street and alley rights-of-way (ROW). Mr. Piburn supervised the extensive research that was performed for the areas adjacent to the streets and alleys to determine ownership and property configuration. He coordinated with the project engineer to ensure all data could be assembled in CAD, using DWU symbol blocks and format, reducing manpower requirements during the engineering phase.

**Dallas Alley Project, City of Dallas**—Dallas, TX (2006) Principal-in-Charge/Project Manager. As part of ongoing City bond initiatives, Mr. Piburn performed as-built and topographic surveys for five alley segments. In addition to locating all features, additional data was acquired to create cross-sections for

the project engineer, reducing manpower requirements during the engineering phase. Mr. Piburn supervised all of the boundary determinations for each ROW line and made an on-site inspection of each segment to ensure deliverables were complete and accurate.

**Reverchon Park, City of Dallas—Dallas, TX (2004)** Principal-in-Charge/Project Manager. Founded in 1915, Reverchon Park was named for Julien Reverchon, a well-known botanist who collected more than 2,600 species and 20,000 specimens of Texas plants. Modifications were made in the 1920s and 1930s, including a signature grandstand, landscaping, picnic areas, baseball diamonds, playground equipment, and tennis courts. In 1951, Reverchon Park expanded to 46 acres and, in 1975, the Reverchon Recreation Center opened. In 2002, Texas Scottish Rite Hospital for Children and the City of Dallas built a state-of-the-art playground accessible to children of all levels of ability. Mr. Piburn performed topographic and tree surveys for approximately 30 acres in this historic urban park. Special attention was given to accurately locating the historically significant features for preservation. The proposed enhancements included exposing subsurface

utilities that were constructed in the 1930s. The heavy vegetation and severe topography presented numerous challenges in this high-profile project. Mr. Piburn created and supervised the field data collection methodology to both accurately and respectfully acquire information for the timely deliverable to the landscape architect.

#### AVIATION

**Denton Municipal Airport—Denton, TX (2006)** Principal-in-Charge/Project Manager. Denton Municipal Airport is one of only three FAA-designated super-reliever airports in Texas, accepting general aviation traffic from Dallas/Fort Worth International Airport. It also is a major mid-continent refueling center, with appropriate services to accommodate business users. The airport, which occupies approximately 750 acres of land, has one asphalt runway, measuring 5,999 feet long and 150 feet wide. The Airport features a new general aviation terminal. It serves a number of major companies for transportation of cargo, personnel, vendors, and prospective clients. The Airport is also the base of operations for law enforcement and search and rescue operations, including CareFlite. The Airport has experienced growth in operations requiring the expansion of facilities. Mr.

Piburn managed the topographic survey of approximately 6,100 linear feet of runway and 4,000 linear feet of runway extension. He led the topographic survey of an additional approximately 130 acres for drainage, roadway and runway extensions.

#### EDUCATIONAL FACILITIES

**Dallas Independent School District Bond Program—Dallas, TX (2004)** Principal-in-Charge/Project Manager. Mr. Piburn prepared boundary and topographic surveys for the placement of additional classrooms at 22 school sites. He supervised the survey of each of the individual sites from initial research to final site inspection before issuing drawings to the client. He assisted in the determination of all boundaries and, if necessary, the placement of missing property corners.



## RICHARD CARSON, JR., P.E.

### EXECUTIVE VICE PRESIDENT

Mr. Carson has 38 years of experience in the field of civil engineering. He has completed a wide range of projects for both public agencies and private developers. He has participated in a variety of development types, including mixed-use developments; healthcare facilities; municipal utilities; schools and universities; churches; shopping centers; offices; industrial facilities; distribution centers; residential and multi-family developments; and state and local governmental agencies. He has extensive experience in site civil design, including building, facility, and utility layout; site grading and earthwork; and design of paving, drainage, and utility improvements. Other areas of expertise include hydraulic and hydrologic analysis for open and closed storm drainage systems and floodplain reclamation studies; water and wastewater distribution systems; lake design; and FEMA map revisions.

#### PRIVATE LAND DEVELOPMENT

**One Arts Plaza**—Dallas, TX (2006) Project Manager: Crowning the Dallas Arts District, One Arts Plaza was the first high-rise building completed in downtown Dallas in 18 years. The distinct property

initiated the mixed-use trend in downtown Dallas, providing retail, office, and luxury residential spaces in 24 stories. The first of three developments in the 10-acre Arts Plaza ensemble, One Arts was developed on four acres with an adjacent 6.5 acres designated for the Two and Three Arts phases. Mr. Carson was responsible for leading all aspects of civil engineering and design for Phase I, while considering Phase II infrastructure requirements. He prepared a civil due diligence study to identify if off-site utility development would be required. Based on the results of the study, he developed plans, including preliminary and final platting, paving, grading, horizontal control, on- and off-site water/wastewater, and storm sewer designs. A SWPPP was also prepared. Construction documents were prepared and construction observation and coordination were performed.

**Greenville Avenue Church of Christ**—Richardson, TX (1980s to Present) Project Manager. In the 1980s, the Greenville Avenue Church of Christ was located at Forest Lane east of US Highway 75. In close proximity to a flood plain and at the maximum allowable size in the acreage available, the

#### EDUCATION

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Bachelor of Science, Civil Engineering, University of Texas at El Paso, 1972

#### REGISTRATION/ CERTIFICATION

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Professional Engineer, TX 40854, 1977

Professional Engineer, OK 13133, 1982

Professional Engineer, NV 014870, 2001

Professional Engineer, NC 31334, 2006

Professional Engineer, AZ 46934, 2008

Registered Professional Land Surveyor, TX 3146, 1980 (Inactive)

#### PROFESSIONAL SOCIETIES/ AFFILIATIONS

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American Society of Civil Engineers

National Society of Professional Engineers

Texas Society of Professional Land Surveyors

Charter Member of the Alumni Academy of Civil Engineers, University of Texas at El Paso

church elected to purchase a tract of land in Richardson on which to construct a new complex. Mr. Carson prepared the site civil design plans for the new facility, coordinating with the architectural firm. Since the construction of the Greenville Avenue location in the 1980s, Mr. Carson has managed a variety of engineering projects, including

the replatting of property to include recent property acquisitions; updating of the master site and landscape plan; and preparing site civil designs for a parking lot expansion that included upgrading on-site and designing off-site storm sewer improvements and other underground utilities.

#### HEALTHCARE

**Hualapai Mountain Medical Center**—Kingman, AZ (2009) Project Manager. Mr. Carson managed the preparation of site civil designs and provided project management and construction administration for a new \$46 million, 22.76-acre, 189,000-square foot, 70-bed hospital, with a fourth-floor shell space. A planned second phase will allow 36 beds in the shell space to increase capacity to a total 106 beds. Key tasks included preparation of a horizontal control plan to ensure the roadways and drives, parking areas, building locations, and landscape areas defined in the site plan could be constructed within project boundaries. Mr. Carson also prepared designs for paved areas, including sidewalks, parking lots, a truck court, a fire lane, street improvements, and erosion control. Additional responsibilities included plans and specifications for grading, drainage, water, and sanitary sewer. The drain-

age design featured multiple detention ponds to comply with City requirements, as the initial site plan did not support the standard design for a large on-site detention pond to capture surface runoff. A PondPack model was developed to simulate the design. The project required extensive coordination with multiple design consultants, including architects, structural engineers, MEP engineers, and landscape architects. He also coordinated extensively with a local surveyor for the preparation of the final plat and with the City of Kingman.

**Texoma Medical Center**—Denison, TX (2009) Project Manager. Mr. Carson provided civil design services for a \$96.2-million, 36-acre, eight-story, 370,000-square foot medical center in Denison, Texas. This new facility will provide local medical care for Denison residents, fulfilling a long-standing need. He managed the preparation of designs to redirect an existing drainage channel that crossed the site at the proposed location of the facility and for grading, paving, water, and sewer. The Texoma site was traversed by a large ravine. During the site civil design phase, he recommended enclosing the existing drainage channel with a pipe system. The use of this technique not only eliminated storm-

water drainage issues on the property but also alleviated the potential for erosion and water seepage that could adversely impact the final building structure. A SWPPP was prepared.

#### MUNICIPAL

**Mesquite Justice and Public Safety Building, Phase I and II**—Mesquite, TX (2009) Project Manager. Mr. Carson provided civil engineering master planning and on-site and off-site civil engineering design services for the construction of the 108,000-square foot Mesquite Justice and Public Safety Building. Civil master planning services included schematic design of the overall site, using the owner-approved architectural master site plan, and preparing preliminary grading, drainage, water, and sanitary sewer layouts. On-site civil engineering services for Phase I included horizontal control; a drainage area map, and storm sewer, water and sewer, grading, paving, and retaining wall plans; a SWPPP; permits; details; and construction administration. On-site services also included coordination and meetings with the City of Mesquite and the coordination of on-site utility construction with adjacent property owners. Off-site engineering services included storm sewer and channel improvements. A Sec-

tion 404 Permit was secured for this project. Close coordination with City officials was required. Phase I was completed in 2009; Phase II construction has begun and completion is anticipated in 2011.

#### HYDRAULICS AND HYDROLOGY

**7150 Fisher Road**—Dallas, TX (2007) Project Manager. Mr. Carson provided civil engineering services to a private landowner during the creation of a private nature preserve. The ten-acre estate, traversed by Rush Creek, featured natural ponds, wooden bridges, and mature trees. The banks of Rush Creek were severely eroded and the wooden bridges were in disrepair. Mr. Carson managed topographic surveys on two of the multiple properties that were combined into the estate and performed a hydraulic and hydrologic analysis to ensure compliance with the City of Dallas' 100-year flood plain requirements. He completed and filed a floodplain fill permit and prepared and submitted a Section 404 Permit. Two traffic-bearing bridges and two new pedestrian bridges were designed and constructed to replace existing structures; all structures feature stone arches. In addition, a flood plain alteration notice was filed in advance of the replacement of the wooden bridges, the

placement of boulders around the bridge abutments, and the mitigation of the creek bank erosion.

#### MUNICIPAL UTILITIES

**DWU Miscellaneous Water and Wastewater Main Relocations**—Dallas, TX (2004) Principal/Project Manager. DWU Contract No. 02-063E/064E. Mr. Carson managed the preparation of plans and specifications for the improvement and relocation of approximately 40,000 linear feet of existing water and gravity wastewater mains. These distribution mains, ranging in diameter from 2- to 12-inches, were situated at 41 various locations within the City of Dallas.

#### ROADWAYS

**TxDOT US 380 Paving, Drainage and Bridge Improvements**—Collin County, TX (1990s) Project Manager. US 380 is an east-west highway that terminates in Greenville, Texas. US 380 passes through the northern area of the Dallas/Fort Worth Metroplex, including Denton and Collin Counties. Originally commissioned in 1932, the highway has undergone numerous routing changes, upgrades, and maintenance. Mr. Carson designed and developed detailed traffic control plans, paving, grading, drainage, and bridge improvements for approximately 9.1 miles of 4- and 6-lane divided road-

way. He also provided project specifications and costs estimates.

#### RECREATIONAL FACILITIES AND PARKS

**Coppell Aquatic and Recreation Center**—Coppell, TX (1998) Project Manager/Senior Design Engineer. Mr. Carson provided survey and platting services and developed/prepared site civil plans for an outdoor aquatic center and 43,000-square foot recreation building within a floodplain area. Fill was used to raise the lot above the floodplain. Storm sewer systems were upgraded to control outfall into a wetland area and erosion control measures were taken to prevent stream bank damage after the installation of a clear span pedestrian bridge to connect the recreation center to a parking lot.



## DUSTIN DAVISON, S.I.T.

### VICE PRESIDENT

Mr. Davison has 14 years of experience in the field of land surveying for state agencies, municipalities, and private development clients. He has performed boundary, topographic, route, and as-built surveys; prepared elevation certificates; determined horizontal and vertical controls and cross sections; and condominium mapping.

Mr. Davison manages a variety of projects while overseeing field crew operations and drafting technicians. Additionally, he is responsible for the information technology and accounting functions of the firm.

Mr. Davison served in the United States Marine Corps, receiving a Certificate of Commendation from the Commanding General of the 1st Force Service Support Group, and the Army National Guard from which he received a Certificate of Achievement.

#### PRIVATE LAND DEVELOPMENT

**The Trails of Blue Ridge**—Blue Ridge, TX (2008) Survey Project Manager. Mr. Davison managed survey efforts for a 323-acre residential subdivision in Blue Ridge, Texas. He organized a research team to establish current ownership, zoning, and deed in-

formation. He coordinated the transition to field data acquisition to determine actual horizontal positioning of property corners, as well as setting overall project control. He managed global positioning related to the Texas State Plane coordinate system. Vertical datum was translated from area benchmarks to the project control points so that the field work to create a boundary and topographic survey could be completed. After the site design was completed by the civil engineer, a preliminary plat was created to subdivide the tract into 74 large residential lots. In accordance with the civil design, all required easements were geometrically placed on the plat to encompass facilities. The plat was successfully recorded in Collin County, Texas.

**The Village at Fairview Master Condominium**—Fairview, TX (2008) Survey Project Manager. Mr. Davison managed survey teams for the development of The Village at Fairview Master Condominium, a 14-acre, mixed-use development. Maps were created to form seven units, comprising spatial components that exist within six structures on the site. Initial maps were created from base architecture

#### EDUCATION

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Bachelor of Science, Management, University of Phoenix, 2010

Associate Degree, Applied Sciences for Computer-Aided Drafting, Dallas County Community College District, 2004

Drafting Degree, Great Plains Technology Center, 1992

#### PROFESSIONAL SOCIETIES/AFFILIATIONS

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Texas Society of Professional Surveyors

provided by the client. Mr. Davison provided coordination between the owner and owner's attorney to create the units and to define limited and general common elements that were appurtenant to one or various units within the condominium as defined by the Texas Uniform Condominium Act. He coordinated field efforts to ensure that actual horizontal positioning of mapped components complied with the specifications outlined in the architectural plans. He obtained field information to determine boundary location and performed a final review that compared the owner's intent with the final map.

**Urban Campus Assembly, IH 30 at Westmoreland**—Dallas, TX (2010) Survey Project Manager. Urban Campus is a 211-acre mixed-use development, encompassing townhomes, condominiums, multi-family housing, and an industrial research complex, on the west side of the Trinity River in Dallas, Texas. The area is anticipated to undergo extensive revitalization in concert with the redevelopment of the Trinity River Corridor. Mr. Davison managed a survey team that researched and established current ownership, zoning, and deed information to aid in the assembly of 24 individual tracts of land, comprising approximately 200 acres. Preliminary drawings were created to assist soil engineers to determine test boring locations. Target points were mapped and set via global positioning systems (GPS) to prepare scale reductions of an aerial LIDAR topographic survey. He coordinated the acquisition of field data to determine actual horizontal positioning of the individual parcels, set overall project control, and managed global positioning related to the Texas State Plane coordinate system. Boundary resolutions based on the data acquired in the field resulted in the creation of individual land title surveys for the transfer of real title. Management zoning and sub-

zoning exhibits were created to assist the developer with proposed zoning changes. A tree survey comprising horizontal locations and common tree nomenclature identifications was created to satisfy the City of Dallas tree mitigation process. Preliminary and final plats were prepared in accordance with the City of Dallas Platting requirements. Mr. Davison also coordinated with City staff.

#### MUNICIPALITIES

**Katy Trail**—Dallas, TX (2007) Project Manager. Mr. Davison was the project manager for six miles of topographic surveys, ROW easement parcel preparation, and as-built survey, in conjunction with the Katy Trail hike-and-bike trail project in the City of Dallas. The trail was transformed from an abandoned section of railway into a public trail system. Mr. Davison established GPS control points along the six-mile corridor for the proposed project. The global positioning coordinates were translated to the Texas State Plane Coordinate System to serve as a secondary check for positioning during subsequent phases of the project. Field work included data acquisition that related the control points and the railway corridor to all adjacent parcels of land. Vertical control was established by conventional methods at several key

locations within the project. He organized a research team to establish current ownership, zoning, and deed information to assist in the assembly of a composite drawing of the corridor. Individual topographic and cross-section drawings were provided to the civil engineer and several phases of easement exhibits were provided to the City of Dallas for construction.

#### RAIL/TRANSIT

**Burlington Northern Santa Fe (BNSF) Railroad**—Fort Worth, TX (2004) Project Manager and Spiral Curve Consultant. Mr. Davison managed construction staking and land surveying services for approximately 1,600 linear feet of new railway within the BNSF RR ROW near the crossing at Spur 280 in Fort Worth, Texas. The project required advanced drafting techniques to recreate railway alignments along spiral curves with track geometry based on chord definition, as defined by the AREMA Manual for Railway Engineering. Mr. Davison managed field crew efforts to layout the horizontal and vertical placement of new tracks, bridge abutments, beams, and piers. Additionally, he collected field topographic data and calculated dirt quantities to be removed by the general contractor at the construction site.



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