



# PROPOSAL

## DESIGN ENGINEERING SERVICES FOR SMALL DRAINAGE AND SMALL ROADWAY PROJECTS

*Proposal No. 21RFSQ14*

**PREPARED FOR:**

**WILLIAMSON COUNTY**





11701 Stonehollow Drive | Ste 100  
Austin, TX 78758  
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alliance-transportation.com

October 14, 2021

Johnny Grimaldo, Sr., Purchasing Coordinator  
Williamson County Purchasing Department  
100 Wilco Way, Suite P101,  
Georgetown, TX, 78626

RE: Design Engineering Services for Small Drainage and Small Roadway Projects

Dear Mr. Grimaldo:

Alliance Transportation Group, Inc., **ATG**, appreciates this opportunity to submit our qualifications for Williamson County's Small Drainage and Small Roadway Projects Program and continue serving communities across Williamson County. If selected, we will apply the experience gained from previous projects completed for Williamson County including the CR118 emergency bridge repair and our work in developing Williamson County's Vision Tomorrow plan. Our team offers subject matter experts with the knowledge needed to successfully deliver multiple projects.

Our Project Manager, Michael W. Midkiff, P.E., has asked our established partners at Halff and Garver to join our team of qualified professionals dedicated to Williamson County's success. This team has effectively worked together on public infrastructure projects throughout Central Texas, and we look forward to serving Williamson County together.

Mike Midkiff is a proven Project Manager with over 34 years of transportation experience, predominately in Central Texas. His long-standing professional transportation engineering career includes delivering projects in and around Williamson County, and he understands the balancing act between development and maintenance that the region's unprecedented growth is forcing on local and regional transportation agencies.

Mike's team includes **ATG** senior transportation engineers, each experienced project managers and seasoned designers in their own right. Chad Wood, P.E., PTOE and Eric Sierra-Ortega, P.E. will assist Mike with project team leadership and schedule adherence. Julia Colman, P.E., will serve as our Quality Manager, and has worked on many of our Williamson County projects and she has a thorough grasp of how **ATG's** QC/QA process and documentation should be employed.

**ATG** has been serving Williamson County for over 20 years. We are headquartered in Austin, TX, and are registered with the Texas Board of Professional Engineers (Firm No. F-812). The firm employs more than 80 people, over twenty percent of which reside in Williamson County. However, the whole team shares Mike's commitment to quickly developing small projects and solutions that substantially improve his WilCo neighbors's quality of life. **ATG** remains committed to serving the County and seeks to continue our successful working partnership. Our team composition, capabilities, experiences and availability are presented in our submission. Thank you for your thoughtful attention to our proposal and look forward to your favorable consideration.

Sincerely,

Alliance Transportation Group, Inc.

A handwritten signature in blue ink, appearing to read 'Mike Heath'.

Mike Heath, P.E., President

#### **ATG CONTACT**

Mike Heath, P.E., President  
mheath@emailatg.com | 512.821.2081  
11701 Stonehollow Drive | Ste 100  
Austin, TX 78758



# Organizational Chart

ATG, Halff and Garver each have local Central Texas-based offices that all team members listed below each report to 100% of the time. All team members are fully committed to perform all tasks necessary within this project.



## FIRM BIOS



Alliance Transportation Group, Inc., (ATG) is a full-service engineering and planning consulting firm. ATG was founded on strong beliefs of serving the community, developing sustainable relationships and sharing success. We deliver our services on-time and with consistent high value and attention to our client's needs. Today, the firm employs more than 80 professional engineers, traffic operations engineers, certified planners, economists, computer technicians, public involvement specialists and support staff.

**Local Office: 11701 Stonehollow Dr., Suite 100, Austin, TX 78758**



Founded in 1919, Garver is an employee-owned, multi-disciplined engineering, planning, architectural and environmental services firm with nearly 900 employees across the United States. Offering a wide range of services focused on aviation, construction, facilities design, federal, survey, transportation, water and wastewater, Garver sits in the top 125 of the Engineering News-Record's prestigious Top 500 Design Firms list and is consistently recognized as a best firm to work for.

**Local Office: 285 SE Inner Loop, Suite 110, Georgetown, TX 78626**



Halff Associates, Inc., is an employee-owned, full-service engineering and architecture firm headquartered in Richardson, Texas. Our people are individuals with diverse, yet complementary, professional backgrounds. We know this attribute, more than any other, allows us to maintain a loyal client base. We are members of a company built on integrity, technical knowledge and commitment to client service.

**Local Office: 9500 Amberglen Blvd., Building F, Suite 125  
Austin, Texas 78729-1102**

## Project Manager's Experience/Qualifications



**Mike Midkiff, P.E.**, has over 34 years of comprehensive transportation engineering and project delivery experience, ranging from conceptual project development and preliminary engineering to final design and construction management. Mike has been PM and Lead Designer for projects of varying roadway design complexity, that range from mill, seal and overlay of 2-lane rural roadway widenings and new location 6-lane median divided arterials, to urban controlled-access freeway facilities. Mike's considerable experience has made him an expert in all levels of project development challenges ranging from high-level political/planning issues to detailed design matters. Mike understands that careful planning and

coordination leads to a simplified design, reduced costs and successful project delivery.

Mike's pavement maintenance and rehabilitation expertise includes leading the Austin District's annual seal-coat project covering Williamson County, as well as the other ten counties in the TxDOT District. As evidenced by his referenced resume, Mike has extensive roadway design, drainage analysis and project management experience within Williamson County and the surrounding area.

He has effectively managed transportation infrastructure projects, large and small, for three decades and thoroughly understands the importance of progressing projects through completion so that letting dates are met, project costs are minimized and deliverables are clear and concise. His proactive management style includes meaningful communication with all team members resulting in no surprises both internally and externally, while developing and providing straightforward, high quality and cost-effective designs.



### SCOPE AREAS EXPERTISE: SEAL COAT & OVERLAY, ROADWAY DESIGN, DRAINAGE

#### **PROJECT MANAGER | TxDOT AUSTIN DISTRICT | DISTRICT PAVEMENT SEAL COAT/OVERLAY IMPROVEMENTS | AUSTIN, TX**

Responsible for PS&E of District-Wide flexible pavement seal coat/overlay projects per TxDOT's pavement maintenance program. Mike coordinated with state and local maintenance personnel to determine if any corridor reconstruction improvements were on the horizon and to perform a condition survey to identify required corrective crack seal or localized treatment method prior to seal coat or thin overlay placement.

#### **PROJECT MANAGER | CITY OF ROUND ROCK | A.W. GRIMES BOULEVARD | ROUND ROCK, TX**

As Project Manager and design engineer for route studies, design schematic and the preparation of two sets of PS&E for 3 miles of new location six-lane divided urban arterial. Project included coordination of Section 404 USACE permit with and coordination/mitigation of identified Karst features located along the corridor including two award winning bridge structures. Mike led all public involvement meetings and hearings, as well as coordinated various stakeholder meetings for residences and businesses located along the proposed corridor. The public meeting interaction with interested parties facilitated necessary right-of-way acquisition and utility adjustments resulting in successful project schedule time and funding savings.

#### **PROJECT MANAGER | TxDOT AUSTIN DISTRICT | FM 734 [RONALD REAGAN BLVD] | AUSTIN, TX**

As Project Manager for development of route studies and the preparation of a preferred alternative schematic for the installation of 9 miles of new location four-lane divided highway from SH 29 to FM 2338. Project included mitigation coordination of identified Karst features, over-sizing of proposed side ditches to provide for Edwards Aquifer transition zone storm water quality requirements, new utility installation design, ROW preservation, HEC-RAS modeling of North San Gabriel stream crossing and corresponding downstream Dam Breach analysis of USACE Georgetown Lake facility.

# Project Team's Experience with Seal Coat and Overlay Plan Development



**CHAD WOOD, P.E., PTOE** has focused on planning, designing, constructing and maintaining transportation infrastructure throughout Texas since 1999, as both a consultant and as a public servant. As a TxDOT Assistant Area Engineer and as Senior Transportation Engineer at Central Texas municipal agencies he led teams working on pavement management assignments from full rehabilitation projects to mill and overlay jobs. Chad has overseen preliminary engineering as well as PS&E development and construction management for neighborhood street rehabs, minor collector surface treatments and full-scale arterial reconstruction and widening projects. He has also assisted public works teams on pavement

maintenance evaluations and program development.

**Project Manager | City of Pflugerville | Green Meadows/Mill Creek – CDBG Improvements | Pflugerville, TX**

**Project Manager | City of Pflugerville | Railroad Avenue Rehab | Pflugerville, TX**

**Project Manager | City of Pflugerville | PMIS Program | Pflugerville, TX**

**Project Engineer | TxDOT Atlanta District | District-Wide Seal Coat Program | Atlanta, TX**

## CHALLENGE/SOLUTIONS

**CHALLENGE #1:** Completing Seal Coat/Overlay (SC/OL) PS&E documents quickly and thoroughly.

**SOLUTION #1:** SC/OL PS&E can be adequately detailed using typical sections and layout maps along with right-sized quantities summary tables and basis of estimate notes.

**EXAMPLE:** The Atlanta District's seal coat plans in 2003 covered nine counties with only typical sections, standard specifications and county map sheets to direct the contract where to begin and end each item of work.

**CHALLENGE #2:** Public perception of Seal Coat projects can be messy to manage.

**SOLUTION #2:** Application rates are key to public perception of project success, too little asphalt and they'll complain about loose rock everywhere, too much and they'll be calling about tracking oil in their driveways and garages.

**EXAMPLE:** Neighborhood seal coats should over-rock regardless using pre-coated aggregate to minimize dust while also budgeting for multiple rounds of street sweeper service a few weeks afterwards.

**CHALLENGE #3:** Getting the most out of every preventative maintenance dollar.

**SOLUTION #3:** Pavement surface maintenance projects perform best long-term if preceded by repair/rehab efforts. Try to include, if possible, Pothole/Base repair, crack-sealing and level-ups for grading/drainage deficiencies. Furthermore, reclaiming millings from mill and overlay projects can save substantial program dollars and materials can be recycled as reclaimed asphalt paving in new overlays, or hauled elsewhere and used in parking lot, bedding or trench backfill repairs.

**EXAMPLE:** Pflugerville's arterial mill & overlay projects provided millings that helped expand parking areas at Lake Pflugerville, the Public Works yard and the Community Recycling Center.

# Project Team's Experience with Roadway Design



**ERIC SIERRA-ORTEGA, P.E.** is a transportation engineer with both local and nation-wide experience. His ten-plus years of knowledge in design, analysis and construction cost estimation have been earned on local roadway projects in Georgetown, State Highways across Texas and design-build projects from Maryland to Georgia. His project leadership experience includes overseeing complex traffic control and construction phasing plans, local street and drainage design and traffic signal design efforts.

**Central Texas Regional Mobility Authority | US 290/SH 130 Operational Improvements | Austin, TX**

**City of Georgetown | DB Wood Road at Fire Station No. 5 Roadway Improvements | Georgetown, TX**

**Central Texas Regional Mobility Authority | US 183 South (Bergstrom Expressway) Design-Build | Austin, TX**

The **ATG** roadway design team has completed dozens of street and highway projects that started as a proof-of-concept exercise and finished with the final contractor's invoice. We believe that every project should be approached with an open mind and open ears. Listening to our clients and their stakeholders is the best way to start to define problems we're solving. **ATG** also believes that our design plans must communicate effectively to each user – from agency review staff and prospective bidders who both need to quickly find key information, to contractor's foremen and construction inspectors that need to understand the detailed intent of each item of work. We take pride working elbow-to-elbow with inspectors to get to and through final walk-through and punch list items so that jobs can be closed out and contractor's warranty periods can begin.

Throughout the project development process our design staff, project engineers and team leaders keep quality at the top of our priorities. Quality controls permeate our design efforts, because we understand that every deliverable that leaves our doors is a reflection on our team. Our process starts informally with self-reviews and peer-reviews at the designer levels. We also incorporate formal quality check and quality assurance steps into each milestone deliverable, with the ultimate responsibility for quality resting with the project manager. Our PMs don't work alone though, each project's Quality Manager helps the PM keep the internal review process moving and documentation organized. In the end, quality is the responsibility of all **ATG** staff and a promise we strive to keep to every client.

## CHALLENGE/SOLUTIONS

**CHALLENGE #1:** Compressing project development schedules to meet and beat letting dates.

**SOLUTION #1:** **ATG's** senior team members and their comprehensive design experience allows our team to anticipate project needs, potential project risks and external influences so that multiple viable solutions can be quickly assessed and progressed for expedited project review and delivery.

**EXAMPLE:** Wilco requested that **ATG** provide an emergency bridge repair plan set for CR 118 at Cottonwood creek in an accelerated timeframe. **ATG** rallied seasoned veteran team members to provide cost effective and constructable solutions based on their extensive project knowledge and expertise.

**CHALLENGE #2:** Public safety features are not a one-size-fits-all solution.

**SOLUTION #2:** Especially on small projects for low-volume local roads, roadside protections need to be right-sized to the surrounding area and fail-safe elements prioritized.

**EXAMPLE:** While culvert improvements along an arterial facility typically require metal-beam guard fence safety protection, this may not be a suitable solution for a local neighborhood setting. For neighborhoods, slope improvements or other aesthetically pleasing mitigation solutions may better meet stakeholder expectations while minimizing downstream maintenance needs.

# Project Team's Experience Providing Environmental Clearance



**SUSAN CHAVEZ** will lead our Environmental Documentation and Clearance Team. Susan has prepared numerous environmental documents and understands the process and requirements for obtaining clearance. Susan has led document preparation on projects for municipalities and TxDOT that include new-location facilities, roadway widening and addition of controlled access lanes.

Her experience with the environmental clearance process and various local, state and federal agency requirements is invaluable to managing environmental issues and employing strategies and staff to achieve environmental clearance. She also maintains excellent relationships with various regulatory agencies which facilitates obtaining information and timely reviews.

Susan's approach includes identifying constraints early, communicating with the team and developing strategies to deliver quality technical reports quickly. She identifies technical analyses that can be completed early in the project, and those that have a longer lead time. This proactive environmental approach reduces surprises and the potential for schedule delays, which is invaluable when working with a compressed schedule.

Susan assesses the appropriate level of environmental documentation based on the project needs to deliver the required environmental approvals. During project scoping, Susan assesses the project area for constraints such as potential jurisdictional waters and wetlands, cultural resources, sensitive habitat and hazardous material sites to identify technical analysis and coordination that will be required. She communicates regularly with the project team to stay informed of any updates that may affect required environmental analyses, and quickly adjusts to minimize impacts schedule.

**Environmental Task Lead | Williamson County | Road Bond & Pass-Through Programs GEC | Williamson County, TX**

**Environmental Task Lead | Williamson County/TxDOT | O'Connor Drive Extension | Williamson County, TX**

**Environmental Task Leader | TxDOT Austin District | Local Government Projects Environmental Documentation Support | Austin, TX**



**Lessons Learned:** On a project for the San Antonio Water System, miscommunication during coordination with the Texas Historical Commission led to a request for an archeological survey and potential delay in obtaining agency approval. However, Susan brought in an Archeologist to provide expertise and specific resource knowledge which addressed agency concerns so that a survey was not needed, and approval was obtained on schedule.

## CHALLENGE/SOLUTIONS

**CHALLENGE:** Right-of-Way (ROW) changes affecting environmental schedule.

**SOLUTION #1:** Susan worked closely with the PM and Drainage Task Lead to identify a broad ROW footprint that would encompass any potential ROW needed to accommodate drainage improvements and turn lanes so that environmental tech reports could progress. A slightly larger ROW footprint was cleared on schedule, and rework and potential delays were avoided due to shifting ROW needs.



Susan brings a wealth of experience as a former Project Delivery Manager with TxDOT TPP. In that role, she managed delivery of several corridor studies and environmental documents. She has extensive experience with the TxDOT Environmental Toolkit, Environmental Compliance Oversight System (ECOS), and has provided assistance to the Austin District with their local government projects by providing review and oversight of technical reports as extension of staff.



# Project Team's Experience Providing Drainage, Planning and Drainage Conveyance Design Services



**JOHN CONQUEST, P.E.** brings 27 years of experience which focuses on, H&H modeling, complex hydraulic design and hydraulic reporting. As Halff's Drainage Manager for projects across the state he has helped expand roadway drainage assignments in Central Texas. John's extensive experience allows him to function as a subject matter expert for H&H analysis of roadway crossings, complex storm drainage systems, detention, bridge scour and even 2D analysis. John can distill complex H&H projects and therefore is often assigned as the drainage task lead for particularly complex projects. Additionally, he provides over-

the-shoulder and QA/QC review for Central Texas projects ensuring drainage designs viable and well-coordinated with other disciplines.

John understands Williamson County's respect for property owners adjacent to projects and their desire to minimize ROW and Easement acquisition to the greatest extent possible. As such, John will work to find solutions that meet that desire and eliminate adverse offsite impacts.

**Drainage Manager | Williamson County | Corridor E Preservation Study | Williamson County, TX**

**Drainage Manager | Williamson County | Ronald Reagan Corridor Preservation Study | Williamson County, TX**

**Drainage Design Task Lead | Williamson County | Liberty Hill Bypass | Williamson County, TX**



## CHALLENGE/SOLUTIONS

**CHALLENGE #1:** Accommodate future development within the corridor and minimize the additional permanent ROW that would be required for the project.

**SOLUTION #1:** On the MoKan project, John was able to provide drainage guidance to direct the roadway designers to provide feasible and reasonable solutions for the corridor.

**CHALLENGE #2:** Reduce the number of proposed ponds that were required outside of the ROW.

**SOLUTION #2:** On the Liberty Hill Bypass project, John updated the schematic drainage report providing updated water surface elevations for the bridge crossing including a crossing that was at a confluence of two streams.

**CHALLENGE #3:** On the Ronald Reagan and Corridor E projects, John understood the county's desire to limit ROW preservation to the required Roadway improvements.

**SOLUTION #3:** As such, his drainage improvements were confined to the prescribed ROW by using innovative detention solutions. Additionally, the cross culvert designs were able to reduce outlet velocities and this allowed for smaller ROW and/or Drainage Easements at the culvert crossings.



# Project Understanding

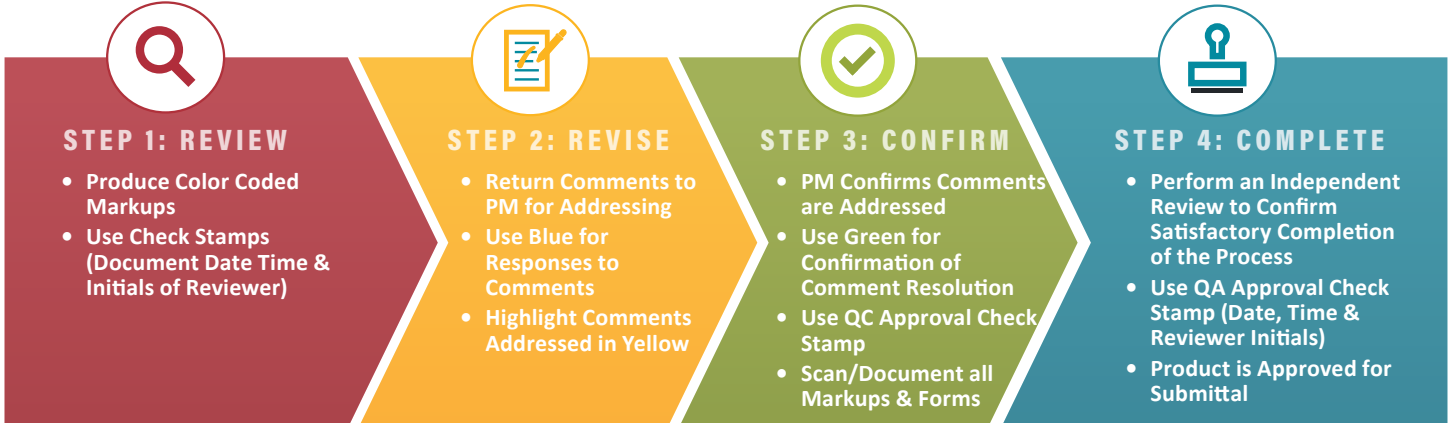
**ATG** understands the Williamson County Road and Bridge Division is looking for engineering and design assistance for small drainage and small roadway projects. We also understand that the County would like to have three to five firms or teams extending their capacity to plan, design, permit and estimate costs for these projects. **ATG** has readied a team that has experience to spare on small-scale, quick-burn improvement projects that solve specific community concerns. Several of our team's leaders have experience in agency roles and can help evaluate, define and prioritize problems and recommended solutions as needed. Our past roles assisting Williamson County with transportation planning and programming efforts make us an ideal partner to help scale those processes into these efforts.

**ATG** understands that project assignments will likely require rapid resolution and implementation while also needing to be properly vetted through various environmental and storm water oversight agencies. Our understanding also extends to the need for

subconsultant help – specifically that most support tasks like Survey, SUE, Geotech or ROW Acquisition will be performed by WilCo's team of previously selected providers, most of which we work with regularly. To that end, our team includes Halff and Garver in task lead roles for the drainage analysis and the environmental clearance/structural design disciplines, respectively. Both of these firms have been part of successful **ATG** project teams in the past and the PM and task leaders have excellent working experiences together.

**ATG's** PM, Mike Midkiff, understands the County's priorities for maintaining project delivery schedules and regular communication. He will hold our staff and subconsultants accountable using each assignment's tailored Project Management Plan (PMP). Mike uses these living documents to keep all project team members up-to-date on adjustments to scopes of work, communication procedures, QA/QC processes, technical criteria, deliverables and schedules. An outline of **ATG's** QA/QC process is shown below.

## *ATG Quality Control Process*



The **ATG** team expects example projects to include aspects of culvert widening, headwall reconstruction, ditch grading, pavement repair and rehabilitation, pavement surface treatments, shoulder improvements and associated signs and markings updates. We envision these solutions being applied in unincorporated subdivision streets, along rural county roads and at minor stream crossings near intersections with FM and RM highways. Our team prioritizes safety on all assignments, from construction phasing and traffic control to the ultimate facility. We anticipate public involvement activities to be simplified but no less important as on any other public infrastructure improvement.

Finally, **ATG** understands that the nature of individual work authorizations under this program can vary widely and we are ready to step in to help staff with whatever is needed most at that time. We know that some projects may be adjusted midstream, or even cancelled, and our nimble team knows how to pivot quickly and package up the work completed to date for hand-off as needed. Ultimately, our job will be to provide the extra horsepower to make WilCo staff and leadership successful delivering safety and quality of life improvements to their constituents on time, under budget and with high levels of customer satisfaction.

## Project Team Availability

**ATG** is committing our most qualified personnel to serve in the development of this project. By the time this project begins, many of our current projects will be ending, allowing our staff the availability needed for this contract.

We utilize our long-term workload tool and MS Project to balance our resources on a rolling six-month basis. This allows us to plan for peaks by individual staff. We will maintain and have always maintained enough “surge capacity” to meet new or fast-track project demands.

**ATG** has demonstrated its capacity to meet the challenges of the changes in work. We provide results and service. We will continue to meet your needs with the professional staff and resources to get the job done by:

- Responding to unforeseen changes quickly
- Mobilizing qualified personnel
- Producing quality results

Key Personnel	Role	Office Location	Yrs. of Exp.	Commitment to this project	Anticipated Commitment to other projects	Additional Availability
Mike Midkiff, P.E.	Project Manager	Austin	34	40%	40%	20%
Mike Heath, P.E.	Principal-in-Charge	Austin	35	5%	25%	70%
Julia Colman, P.E.	Quality Manager	Austin	6	10%	70%	20%
Chad Wood, P.E., PTOE	Seal Coat & Overlay Task Lead	Austin	23	35%	35%	30%
Eric Sierra-Ortega, P.E.	Roadway Design Task Lead	Austin	10	40%	40%	20%
Matthew Gaal, P.E.	Roadway Design Support	Austin	4	25%	60%	15%
Susan Chavez	Environmental Task Lead	Georgetown	20	50%	40%	10%
John Conquest, P.E.	Drainage Task Lead	Austin	27	35%	50%	15%
Blake Staton, P.E., S.E.	Structures Support	Georgetown	15	20%	70%	10%

## Michael Midkiff, P.E.

### Project Manager



**Mike Midkiff, P.E.**, has over 34 years of comprehensive transportation engineering and project delivery experience, ranging from conceptual project development and preliminary engineering to final design and construction management. He has an extensive program-project management (PM) background that includes wide-ranging transportation planning and design experience. Mike's considerable experience has exposed him to all levels of project development topics from high-level political/planning issues to detailed design matters.

Mike's preliminary engineering expertise includes traffic and route studies, schematic alternatives development and NEPA coordination varying from simple rural projects to complex freeway facilities. As evidenced by his referenced resume, Mike has extensive roadway design and project management experience within Williamson County and surrounding area. In addition to extensive roadway geometric design, he has in-depth, hands-on, experience in drainage, structures and traffic design.

### Project Experience

#### **Project Manager | TxDOT Austin District | District Pavement Seal Coat/Overlay Improvements | Austin, TX**

Responsible for PS&E of District-Wide flexible pavement seal coat/overlay projects per TxDOT's pavement maintenance program. Mike coordinated with state and local maintenance personnel to determine if any corridor reconstruction improvements were on the horizon and to perform a condition survey to identify required corrective crack seal or localized treatment method prior to seal coat or thin overlay placement.

#### **Project Manager | City of Round Rock | A.W. Grimes Boulevard | Round Rock, TX**

As Project Manager and design engineer for route studies, design schematic and the preparation of two sets of PS&E for 3 miles of new location six-lane divided urban arterial. Project included coordination of Section 404 USACE permit with and coordination/mitigation of identified Karst features located along the corridor including two award winning bridge structures. Mike led all public involvement meetings and hearings as well as coordinated various stakeholder meetings for residences and businesses located along the proposed corridor. The public meeting interaction with interested parties facilitated necessary right-of-way acquisition and utility adjustments resulting in successful project schedule time and funding savings.

#### **Project Manager | TxDOT Austin District | FM 734 [Ronald Reagan Blvd] | Austin, TX**

As Project Manager for development of route studies and the preparation of a preferred alternative schematic for the installation of 9 miles of new location four-lane divided highway from SH 29 to FM 2338. Project included mitigation coordination of identified Karst features, over-sizing of proposed side ditches to provide for Edwards Aquifer transition zone storm water quality requirements, new utility installation design, ROW preservation, HEC-RAS modeling of North San Gabriel stream crossing and corresponding downstream Dam Breach analysis of USACE Georgetown Lake facility.

### Experience

Total: 34 Years  
With **ATG**: 1.5 Year

### Education

BS, Civil  
Engineering, Texas  
A&M University,  
1986

### Registrations

Professional  
Engineer:  
TX #75435, 1993

### Office Location

Austin, TX





## Mike Midkiff, P.E.

### Project Manager

#### **Project Design Engineer | TxDOT San Antonio District | SH 173 | San Antonio, TX**

Mike served as Project Engineer for the PS&E preparation of 9.69 miles of two-lane rural roadway pavement rehabilitation near Jourdanon Texas. Proposed design typical section included the addition of shoulders and turn-lanes for intersecting sideroads, reconstruction of bridge class and cross-drainage structures contained within existing ROW. Proposed roadway reconstruction traffic control plan required continuous access to driveways and mailboxes for adjacent property owners.

#### **Project Manager | City of Cedar Park | New Hope Road | Cedar Park, TX**

As Project Manager for the schematic development and environment clearance of 1.4 miles of New Hope Road widening from a four-lane undivided to a five-lane urban section located from Bell Boulevard to Lakeline Boulevard. Mike managed schematic alternatives, environmental investigation, ROW survey, utility adjustments and stakeholder coordination for residences and businesses located along the proposed corridor including New Hope First Baptist church/cemetery. These preliminary engineering efforts preceded preparation of a final design schematic and more refined preliminary roadway and utility design and corresponding ROW acquisition.

#### **Project Manager | City of Round Rock | Creek Bend Boulevard | Round Rock, TX**

As Project Manager for the City of Round Rock, new location Creek Bend Boulevard extension located between Wyoming Springs and Creek Bend Circle. The project included a route study, design schematic, environmental investigation, public involvement and environmental document preparation and approval of new location four-lane divided urban arterial. Project included coordination of identified Karst features along the corridor, HEC-RAS modeling of stream crossing and corresponding bridge structure layout as well as City hike & bike trails system coordination. In conjunction with City engineering staff, Mike provided all exhibits and provided the technical presentation at the public hearing conducted at the nearby Fern Bluff public elementary school.

#### **Project Manager | Texas Department of Transportation (TxDOT) Austin District | CAMPO Freight Study | Austin, TX**

Responsible for development of a regional freight rail and multimodal study for both TxDOT Austin District and local Austin MPO areas. The project scope included freight study consisting of analysis of Austin Metropolitan Statistical Area (MSA) for all freight modes for current/projected commodity flows, infrastructure/operational improvement recommendations and economic impacts, conducted by TxDOT and Capital Area Metropolitan Planning Organization (CAMPO) in close cooperation with the Greater Austin Chamber of Commerce. Also, the Texas Administrative Code requires municipalities with a population over 750,000 to enact a routing ordinance for Non-Radioactive Hazardous Material (NRHM) that meets the requirements of federal and state routing guidelines. Since the City of Austin is nearing this milestone population, the study team was asked to review risk factors and other criteria to identify a preliminary NRHM routing around and within the City of Austin.



## Mike Heath, P.E. Principal-in-Charge



**Mike Heath, P.E.**, is a transportation planning and analysis professional with 35 years of experience. His expertise includes transportation modeling and engineering with special emphasis on transportation studies and the development of congestion solutions for city, state and federal governmental agencies. He has extensive experience developing models and improvement programs for corridor, city and regional planning efforts, and both recommending and implementing solutions for system improvements, including transportation and thoroughfare plans. Mike's strong grasp of engineering and planning practices and methods, coupled with his proven ability to develop and coordinate complex traffic engineering studies and transportation plans, results in solutions that improve safety, mobility and prosperity.

### Project Experience

#### **Project Manager | Williamson County | Long Range Transportation Plan (LRTP) Update | Williamson County, TX**

The LRTP update is designed to provide a vision for a transportation system that can safely and efficiently move people and goods while supporting the County's economic growth and quality of life. As project manager, Mike led the study to identify system deficiencies, evaluate proposed transportation investments and outcomes under alternative land use and economic growth scenarios. Mike's team is using the Capital Area Metropolitan Planning Organization (CAMPO) travel demand model (TDM) and other analytical resources to successfully deliver project results. The project goal is to define an arterial and freeway system to serve the county as part of an overall transportation system that operates within a community vision for mobility, economic vitality and quality of life.

#### **Project Advisor | Williamson County | Small Drainage and Roadway On-Call Contract | Williamson County, TX**

As the Project Advisor, Mike is ensuring that the project adheres to generally accepted engineering practices, schedule, budget and quality for the repair, maintenance and replacement of numerous drainage and roadway facilities throughout Williamson County. In addition, Mike is an additional point of contact that can address any project or client concerns. No project or client concerns have been experienced during the project.

#### **Principal-In-Charge | TxDOT San Antonio District | US 281 at Basse Rd and Jones Maltsberger Rd | San Antonio, TX**

As the Principal-In-Charge, Mike ensured the project team met the schedule, budget and quality for the US 281 at Basse Rd and Jones Maltsberger Rd project in San Antonio for TxDOT. Mike also made sure the project team had the resources needed to evaluate alternatives that provide improved safety and operations. Mike provided a point of contact to address any project or TxDOT concerns. No project issues were experienced during the project.

Improvement options included signal timing, raised medians, driveway consolidation, signal removal, TSM-intersection improvements, innovative intersections, and extensive on- and off-system bike, pedestrian (road and trail) and transit improvements. Project included use of HGAC Travel Demand Model for future year parameters, and Synchro and VISSIM modeling of proposed improvements.

### Experience

Total: 35 Years  
With **ATG**: 24 Years

### Education

MBA, Business Administration,  
Texas A&M University, 1990

BS, Civil Engineering, Texas A&M University, 1986

### Registrations

Professional Engineer:  
TX #78133, 1993  
LA #38699, 2014  
AR #15873, 2014  
AZ #59138, 2014  
AL #37951, 2018

### Office Location

Austin, TX



## Mike Heath, P.E.

### Principal-in-Charge

#### **Project Manager | Bryan-College Station MPO | SH 6 Corridor Study | Bryan and College Station, TX**

The Bryan-College Station Metropolitan Planning Organization hired **ATG** to perform a corridor study for the SH 6/Earl Rudder Freeway main lanes and interchanges in the Bryan-College Station metropolitan area. The purpose of the study is to identify and prioritize solutions that will improve traffic flow, reduce delay and enhance safety along the SH 6 corridor in the urbanized portion of Brazos County. The project limits extend from the Bryan city limits on the north to the College Station city limits on the south. **ATG** will perform technical analysis, develop and evaluate alternatives and prioritize solutions to improve traffic operations and enhance safety along the corridor. In addition, **ATG** conducted project and public meetings to gather input on alternatives to be considered for implementation.

#### **Project Manager | TxDOT Austin District | SH 29 Corridor Study, Burnet C/L to DB Wood Road | Williamson County, TX**

**ATG** developed traffic and socioeconomic data, and traffic forecasts to simulate and evaluate future traffic for this 14 mile section of SH 29 in Williamson County. Mike modified, validated and applied the CAMPO's TransCAD travel demand model as inputs to the corridor simulation models for the analyses on the proposed design alternative and to evaluate traffic needs and requirements. Mike also oversaw and assisted with the utilization of VISSIM, SYNCHRO and SimTraffic to evaluate the corridor for both the base year and the horizon year. The simulation results were compiled into video files that were then merged to provide a side-by-side comparison of existing and future operations. This information was used in the public information campaign for the project.

#### **Project Manager/Senior Transportation Engineer | SH 130, US 183A, SH 45, LP 1-Level 3 Toll Road Feasibility Traffic and Revenue Study | Travis and Williamson Counties, TX**

Mike oversaw the use of revealed and stated preference survey methodologies to collect data for analysis for the proposed SH 130 highway in the Austin region as a toll facility. The survey was later expanded to include overlapping toll feasibility studies of US 183A, SH 45, and LP 1. More than 150,000 surveys were distributed at major intersections throughout the Austin area. **ATG** provided expertise in survey design, database design, supervision, processing and geo-coding using advanced GIS techniques. In addition to the revealed preference survey, a stated preference survey was conducted using both person-intercept techniques and a laptop computer-based survey; and travel time studies were conducted using floating car techniques. **ATG** staff executed the travel demand models used in completing this project originated through the Texas Turnpike Authority Division of TxDOT to develop traffic forecasts to be used to generate toll projections for the facility.

#### **Project Principal | Williamson County Transportation Plan | Williamson County, TX**

**ATG** developed the Williamson County Multi-Corridor Transportation Plan using a series of public meetings, meetings with county leaders and technical modeling processes. **ATG** extended the Austin Transportation Study's regional travel demand models throughout Williamson County. Mike and **ATG** staff met with Round Rock, Taylor, Cedar Park and Georgetown planning staff to collect relevant transportation data. After the travel demand models were extended into Williamson County and transportation data were incorporated, **ATG** staff performed alternatives analyses to identify and prioritize transportation improvement projects.





## Julia Colman, P.E.

### Quality Manager



**Julia Colman, P.E.**, will be managing **ATG's** Quality Assurance/Quality Control (QA/QC) process to support Williamson County. Julia is an expert and leads development of complex corridor analyses, traffic studies, intersection operational analyses, bicycle and pedestrian assessments and roadway schematics. As a project manager, she is responsible for the quality of services provided to her clients and oversees QA/QC processes from project setup of large-scale traffic simulation models to final deliverables for design schematic layouts and preliminary engineering reports.

Julia will ensure that **ATG's** quality processes are followed on each project, assisting the Project Manager by coordinating the set up and approval of the PMP including quality in the schedule, reviewing the documentation of QC reviews during project development and the QA checks for each deliverable. Her role on the project team will be to hold design staff, reviewers and even the project manager accountable for incorporating **ATG's** QA/QC processes at the beginning of all projects and then documenting that process through each milestone. Julia's authority over quality will equal that of the project manager - she can and will force stop on any submittal that hasn't provided clear and complete QA/QC documentation.

### Project Experience

#### **Project Engineer | Williamson County | Corridor A, C and E Traffic Forecasting | Williamson County, TX**

**ATG** developed traffic projections for three future corridors in Williamson County utilizing TPP's standard operating procedures. In addition to performing the traffic forecasts in accordance with TPP's procedures, Julia led the internal team responsible for developing **ATG's** streamlined traffic forecasting procedures including integrating ArcGIS and excel into a readable and transferrable format; auto-import of excel values from excel into MicroStation; and efficient and consistent approach to developing intersection turning movements using excel's higher level functions. This innovation enabled **ATG** to produce traffic projections for multiple corridors in an accelerated schedule. Application of these standard procedures resulted in the development of consistent, data-based traffic projections. These projections were delivered to and accepted by Williamson County.

#### **Deputy Project Manager | TxDOT San Antonio | I-410/US 281 and San Pedro Operational Improvements | San Antonio, TX**

**ATG** was responsible for developing the schematic for approximately four miles of I-410 and 2.5 miles of US 281 in San Antonio. The purpose of the project is to improve safety and operations along the congested corridors. In addition to roadway design, **ATG** is responsible for review, coordination and participation in public involvement, geotechnical studies, structural design, environmental studies, utility coordination and traffic analysis. Julia assisted in the development of alternatives and performs operational analyses to determine preferred alternatives for various interchanges and segments along the corridors as well as led the virtual public involvement effort. Julia has also analyzed several alternatives for interchanges and ramp configurations using Vissim, HCS, and Synchro and has developed technical memorandums documenting the results and selection of alternatives.

#### **ATG Deputy Project Manager | TxDOT Amarillo | SL 335 Amarillo S&E | Travis County, TX**

Traffic Engineering Task Lead and Engineer of Record for the conversion from a non-freeway to a freeway section, including an interim (conversion from a two-lane

### Experience

Total: 6 Years  
With **ATG**: 6 Years

### Education

BS, Civil  
Engineering,  
University of Texas  
at Austin

### Registrations

Professional  
Engineer:  
TX #134015, 2019  
LA #45539, 2021

### Office Location

Austin, TX



## Julia Colman, P.E.

### Quality Manager

undivided to a four-lane divided facility) analysis. Julia completed a detailed crash analysis in the area and performed field observations to confirm collected data and note items not discernible from these sources including deficient sight distance, illumination and acceleration length from cross streets/driveways to the high-speed roadway. Mitigation measures such as illumination, intersection control warning system, signals, and pedestrian accommodations were recommended. Julia led the operational analysis and Option B traffic forecasting, which included incorporating revised TPP guidelines into the traffic projections. Expected high growth resulted in a proposed growth rate exceeding historical. Julia coordinated with the TPP to gain acceptance and inclusion of planned future developments and the validated TDM, resulting in approval of the 24-hour and peak hour traffic projections.

#### **Deputy Project Manager | TxDOT Abilene | SH 176W | Andrews, TX**

**ATG** is responsible for developing a schematic to address safety and connectivity issues associated with truck and vehicular traffic for approximately 40 miles along SH 176 in Andrews, Texas. **ATG** is responsible for review, coordination and participation in public involvement, geotechnical studies, structural design, environmental studies, utility coordination and traffic analysis. Julia assists in the development of alternatives, traffic analysis and public involvement activities.

#### **ATG Deputy Project Manager | TxDOT Dallas | I-35E Phase 2 | Dallas County, TX**

Traffic Engineering Task Lead and Deputy Project Manager for the analysis of I-35E through Carrollton, Farmer's Branch and Hebron. Julia led the evaluation of the safety and operations of the existing network by conducting field observations, a safety analysis and an operation analysis to assist in the development of the build alternatives. Vissim models were calibrated using Federal Highway Administration's (FHWA) Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software. 24-Hour and peak period traffic projections were developed using the TxDOT Transportation Planning and Programming (TPP) Option C traffic forecasting methodologies. Julia assisted the prime in the development of alternatives for the project, optimizing operational improvements and safety.

#### **ATG Project Manager | City of Austin | William Cannon Corridor | Austin, TX**

As part of the 2016 Mobility Bond, William Cannon Drive was identified as a corridor in need of mobility and safety improvements within the City of Austin. Julia led an **ATG** team that analyzed 12 miles of roadway, including a crash analysis, existing and future intersection level of service analysis, and Pedestrian Hybrid Beacon (PHB) and Signal Warrant Analyses. **ATG** identified locations for signals and PHBs based on the proposed transit plan, location of schools, neighborhoods, and other surrounding land uses, as well as the guidance outlined in the MUTCD and NCHRP. **ATG** recommended the installation of several signals and PHBs to improve mobility and access to public transit and intersection improvements including signal timing and turn-bay installation to improve corridor operations. Additionally, **ATG** recommended widening the roadway to a four-lane divided roadway with a 10-foot shared use path along the length of the corridor. As the Project Manager, Julia led the **ATG** team in all traffic tasks and presented the final report to the City.



## Chad Wood, P.E., PTOE

### Seal Coat & Overlay Task Lead



**Chad Wood, P.E., PTOE**, has focused on planning, designing, constructing and maintaining transportation infrastructure throughout Texas since 1999 as a consultant and as a public servant. In his 10 years with TxDOT and municipal agencies he led teams through project development and program management assignments. Chad has overseen preliminary engineering, schematic design, PS&E development and construction management for highway widenings, safety and operational improvements, master plan efforts and pavement management programs. Chad's experience also includes direct supervision of local agencies' traffic O&M teams.

### Project Experience

#### **Project Manager | City of Pflugerville | Green Meadows St and Mill Creek Rd – CDBG Improvements | Pflugerville, TX\***

Chad led the City of Pflugerville staff, consultant design and construction contractor teams providing long needed local street rehabilitation for the Hillside Springs subdivision. This project was completed as phase one of a four-year Community Development Block Grant program funded by the US Department of Housing and Urban Development. Chad worked with the design engineering team to conduct public involvement meetings while completing a subdivision-wide preliminary stormwater improvement and phased construction plan. Once the environmental documents were approved by HUD, he oversaw final PS&E development and assured that the bid documents included all applicable federal procurement forms and requirements. During construction, Chad coordinated with the contractor and ensured that the contractor complied with prevailing local wage rates per the Davis-Bacon Act.

#### **Project Manager | City of Pflugerville | Railroad Avenue Rehab | Pflugerville, TX\***

As the City of Pflugerville's Senior Transportation Engineer, Chad managed the design consultant team and the construction contractor to rehabilitate the existing pavement structure of this suburban major collector roadway from south of Pflugerville Parkway to Wilbarger Street. Chad's responsibilities included coordinating project plans with two school's principals and staffs, conducting public meetings with adjacent neighborhoods and developing construction phasing and TCP plans that allowed access to those groups and to the adjacent Gilleland Creek Park activities. Along with pavement rehab, this project provided updates to signs and pavement markings and to a traffic signal that improved left-turn capacity and reduced congestion at the middle school as well as for the evening peak hour. Chad's daily attention to the construction contractor's progress and plans helped this job finish ahead of schedule and on budget.

#### **Project Manager | City of Pflugerville | Gilleland Creek Trail Improvements | Pflugerville, TX\***

Chad served as the City of Pflugerville Project Manager and worked with the design consultants on final PS&E completion, review and approval for bid. As the City's PM, he oversaw the advertisement for and opening of bids as well as the City Council presentation for bid award. Once the contract documents were authorized, Chad worked closely with the City's construction inspection team and the contractor to complete this half-mile long creek-side trail project. Several field changes and plan revisions were necessary to meet TAS and ADA public ROW guidelines when unexpected field conditions were encountered such as tree growth and high-water marks that differed from the original survey conditions from two years earlier. One

### Experience

Total: 23 Years  
With **ATG**: <1 Year

### Education

BS, Civil  
Engineering,  
University of Texas  
at Austin, 1998

### Registrations

Professional  
Engineer:  
TX #92822, 2004

PTOE #3082, 2011

### Office Location

Austin, TX





## Chad Wood, P.E., PTOE

### Seal Coat & Overlay Task Lead

major change order added a dry stacked limestone rock wall to eliminate the planned large slope cut that would have encroached into the neighboring HOA amenity center property. Chad designed and issued signed and sealed plan revisions for this.

#### **Project Engineer | City of Pflugerville | Pavement Management Information System Program | Pflugerville, TX\***

While employed as the City's Senior Transportation Engineer, Chad assisted the Streets and Drainage Maintenance team conduct a Pavement Management Information System (PMIS) program update - including selecting a firm to collect new Pavement Condition Index (PCI) scores, evaluating the updated scores and developing a new five-year Pavement Maintenance Plan. He worked closely with the Public Works Superintendent and the pavement maintenance crew leader during field visits to review and recommend adjustments to the updated PCI scores. Chad also helped the team prepare presentations of the program and updated five-year plan to City management and City Council.

#### **Project Manager | City of Hutto | Hutto Quiet Zone Feasibility Study | Hutto, TX\***

Chad served the City of Hutto as Project Manager responsible leading City staff and several elected officials through a feasibility analysis of Quiet Zones improvement concepts and potential Quiet Zone calculator scores for the three grade crossings within city limits. Chad led all coordination efforts with TxDOT and Union Pacific Railroad personnel, including a preliminary Diagnostic Review team meeting and a Wayside Horn (WSH) demonstration where Chad's team and City staff used several decibel meters to measure sound pressure effects at various locations around and away from the WSH. Chad's team documented all study options, UPRR and TxDOT recommendations and public involvement input and submitted a final report recommending quad-gate installations at one crossing and WSH installation at the other.

#### **Construction Engineer/Inspector | TxDOT | SH 49 Widening Mount Pleasant, TX\***

While employed as the Assistant Area Engineer in TxDOT's Mount Pleasant Area Office, Chad was assigned the TxDOT construction engineer/inspector role for this 6.2 mile widening of a 2-lane rural highway to 4-lanes with full-service shoulders between FM 1735 in Mount Pleasant and the Titus/Morris County Line near Daingerfield. This important regional arterial widening project included a new pre-stressed concrete girder bridge and two bridge-class box culvert structures. Chad worked cooperatively with the Longview Bridge and Road contractor to redesign several sub-phases of the TCP to combine work zones and reduce the construction schedule by several months.

#### **Traffic Engineer | City of Round Rock | Red Bud Lane Right-Turn Lanes | Round Rock, TX**

As the City's Traffic Engineer, Chad worked within the City's pavement maintenance program to provide much-needed new right-turn lanes for southbound Red Bud Lane traffic turning onto Gattis School Road and Forest Creek Drive. Chad developed plan, profile, and cross-section sheets for the contractor as a change order for the southbound RTL at Gattis in 2012. The success of that addition prompted the inclusion of a southbound RTL for Red Bud traffic at Forest Creek Drive two years later. Chad again developed plan, profile and cross-section sheets – this time to be included as base bid items in the annual mill-&-overlay program. Chad coordinated and handled relocation of existing utilities and existing traffic signal pole.

*\*project experience with prior firm*



## Eric Sierra-Ortega, P.E.

### Roadway Design Task Lead



**Eric Sierra-Ortega, P.E.**, is a transportation engineer in Austin. He has ten years of experience in design, analysis and construction cost estimates. His experience includes a variety of traffic control, roadway, drainage and traffic engineering design projects, ranging from city to a nationwide focus.

## Project Experience

### **Design Engineer | City of Georgetown | DB Wood Road at Fire Station No. 5 Roadway Improvements | Georgetown, TX\***

Design engineer on the 0.5-mile proposed project from Lake Overlook Road to Williams Drive. The project involves widening the two-lane rural roadway section to a four-lane urban roadway section with raised median, turn lanes and ribbon curbs to accommodate the proposed development of Fire Station Number 5. Designed the proposed roadway by developing the existing horizontal alignment, defining sawcut limits and developing roadway and driveway plan and profile sheets. Coordinated, designed and developed the traffic control plan construction sequencing sheet. Designed the proposed signing and marking along the proposed roadway to be in accordance with TMUTCD. Developed proposed and existing typical sections. Analyzed and assisted in the design of the proposed drainage by developing drainage areas. Also developed a water pollution abatement plan (WPAP) and submitted it for approval by coordinating with Texas Commission on Environmental Quality and followed its requirements on WPAP submission. Upon approval of the WPAP, assisted in the design of the stormwater pollution prevention plan using vegetative filter strips to provide water quality treatment in accordance with the approved WPAP. Also, calculated quantities and developed cost estimates.

### **Design Lead | Alamo Regional Mobility Authority | Foster Road Phase III Traffic Control Plan | San Antonio, TX\***

Design lead on the traffic control plan and AECOM Project Manager as a sub performing Bridge Culvert, TCP and Construction Phase Services for the Foster Road Phase III project, plans, specifications and estimate roadway project in Bexar County from I-10 to Houston Street (FM 1346) that will expand an existing two lane roadway to a four lane roadway consisting of two 12 foot travel lanes with six foot shoulders in each direction. Designed and oversaw younger staff in the production of the sequence of construction, advance warning sign layouts, traffic control plans, traffic control typical sections and summary of quantities.

### **Design Engineer | TxDOT - Waco District | I-35 Waco Project 2B | Temple, TX\***

Design engineer on Project 2B, the widening of I-35 from 4 lanes to 6 lanes for approximately 7.6 miles from US 190 in Belton through Temple to North Loop 363. Performed drainage analysis and design as a response to a request for information on previously submitted PS&E. Updated plan sheets to reflect the revised drainage design and analyzed the revised drainage design by verifying the inlet and hydraulic computations were in accordance with TxDOT's Hydraulic Design Manual (HYD), and the city of Temple Drainage Criteria and Design Manual. Also analyzed a detention pond and came up with design solutions to resolve overtopping of the existing design.

### **Design Engineer | TxDOT - San Antonio District | I-35 Schematics | San Antonio, TX\***

Design engineer for development of various design alternatives along I-35 from Thousand Oaks Drive to George Beach Avenue that would create operational and

## Experience

Total: 10 Years  
With **ATG**: <1 Year

## Education

BS, Civil  
Engineering,  
University of Texas,  
2011

## Registrations

Professional  
Engineer:  
TX #124817, 2016

## Office Location

Austin, TX



## Eric Sierra-Ortega, P.E.

### Roadway Design Task Lead

interchange improvements. Developed existing and proposed typical sections; various design alternatives, and generated cost estimates for the schematic level of the project. Analyzed existing culverts along the project using HY-8 and HEC-RAS. Assisted in the development of the closed drainage system by using GEOPAK Drainage. Determined the offsite and interior drainage areas. Lastly, developed traffic control plans for the various design alternatives for the schematic level of the project.

#### **Design Lead | CRRMA | I-10/LP 375 Interchange (Americas Interchange) | El Paso, TX\***

Design lead on the traffic control plan (TCP) of the I-10/Loop 375 (Americas) Interchange in El Paso, Texas. Designed and supervised fellow coworkers to design 5 phases of construction, using the TMUTCD and TxDOT standards to account for the construction of the South to East, and North to East direct connectors. Developed traffic control plan sheets construction sequence layouts, detour plans, advance warning signing sheets, and TCP typical section sheets for each phase of construction. Presented, and got approved at the safety review meeting, the TCP by the El Paso District at the TxDOT office in El Paso. Also calculated the TCP quantities for each phase of construction.

#### **Design Engineer | Central Texas Regional Mobility Authority | US 183 South (Bergstrom Expressway) Design-Build | Austin, TX\***

Design engineer for Area 1 of the US 183 South (Bergstrom Expressway) toll project, as a subcontractor. Verified MOT design would be able to accommodate design vehicle (WB-50) turning movements using AutoTURN 9. Also coordinated with drainage team and analyzed existing and proposed drainage to ensure there was positive drainage throughout all phases and steps of MOT designed by developing temporary drainage solutions. Developed temporary wall cross sections and provided temporary wall elevations to produce temporary wall profiles. The approximate design-build will completely reconstruct US 183, and all related crossing facilities, from US 290 to SH 71. The project will address safety and congestion in a highly urbanized corridor. The project includes construction of six tolled lanes and four to six frontage road lanes on top of an existing 4- to 6-lane mixed arterial and controlled access freeway section, replacement of signalized intersections with grade separations, independent pedestrian and bicycle facilities the entire project length.

#### **Design Engineer | TxDOT - Pharr District | FM 676W Plans, Specifications, and Estimates | Pharr, TX\***

Design engineer on the PS&E for 2.4 miles of roadway reconstruction that would widen the roadway from 2 to 4 lanes. Designed 6 traffic signals within the project limits. Developed a temporary signal design for each existing signal affected by the traffic control plan (TCP) by coordinating internally with the TCP team to ensure the existing signals would remain in operation at each phase of the construction. Lastly, produced existing, proposed and temporary traffic signal layouts.

*\*project experience with prior firm*





## Matthew Gaal, P.E.

### Roadway Design Support



**Matthew Gaal, P.E.**, graduated Cum Laude from Texas A&M University in 2017. At **ATG**, he provides professional engineering support for the development of PS&E packages for traffic signals, illumination, traffic management systems (intelligent transportation systems), signing, pavement markings and temporary traffic control. He also performs the required CAD drafting for each of the projects he supports.

### Project Experience

#### **Deputy Project Manager | TxDOT Austin District | Local Government Project Management | Austin, TX**

Matthew provided project management and oversight for thirty-two local government projects on behalf of TxDOT's Austin District. He worked directly with TxDOT and local government staff to ensure the project met the state's project delivery requirements for elements such as environmental studies, public involvement, traffic projections, design criteria and scheduling. Matthew assisted in the scoping process for the environmental studies, reviewed technical documents, maintained detailed project schedules and recorded the documentation in the state's Environmental Compliance Oversight System (ECOS).

#### **Design Support | City of Pearland | Pearland Parkway Traffic Improvements | Pearland, TX**

Matthew provided design support for traffic signal, intersection and fiber optic design with PS&E plan sets on Pearland Parkway and McHard Road in Pearland. He developed plans for a new traffic signal at the intersection of Pearland Parkway and Forest Park Lane/Summit Springs Lane, including layouts for the traffic signal and signing and pavement markings. He coordinated with the local electric utility to ensure access to the power supply near the intersection. He also developed plans to lengthen the left-turn bays and reconstruct pedestrian curb ramps at the intersection and for a fiber interconnect between this intersection and the two adjacent signalized intersections.

#### **Design Support | City of Austin | Conceptual Traffic Control Plan (TCP) - Burnet Road Corridor Improvements | Austin, TX**

Matthew provided design support for the development of a traffic control plan for the Burnet Road Mobility Improvement project. The project aimed to reconstruct five miles of principal arterial roadway within a densely populated urban area. Matthew developed a conceptual traffic control plan for use in public involvement materials and plan sheets for inclusion in PS&E packages. Traffic control included pedestrian and bicyclist accommodations and a full-depth reconstruction phase. Matthew also developed construction sequence narratives and an opinion of probable construction cost for each phase of work.

#### **Design Support | City of Austin | Traffic Control Plan (TCP) - Rosedale Pipeline Improvements | Austin, TX**

Matthew provided design support for the development of a traffic control plan for the Rosedale Water and Wastewater Pipeline Rehabilitation Project in Austin. He developed plan sheets for 50 phases of construction along with a barricading summary indicating allowable working times. The project limits included seven roadways, two of which are major arterials, and limited detour availability. The plans were developed to maintain two-way traffic on all arterial roadways and local access for businesses and homeowners while portions of the roadway were being excavated. Matt coordinated with the City of Austin's Right of Way Management

### Experience

Total: 4 Years  
With **ATG**: 4 Years

### Education

BS, Civil Engineering  
(Transportation),  
Texas A&M  
University, 2017

### Registrations

Professional  
Engineer:  
TX #140753, 2021  
AR #20447, 2021

### Office Location

Austin, TX



## Matthew Gaal, P.E.

### Roadway Design Support

Division and subsurface utility engineers to minimize impacts to nearby homes, businesses and a fire station.

#### **Design Support | City of Temple | Pedestrian Signal Design | Temple, TX**

Matthew provided design support for pedestrian signal design with PS&E plan sets for the intersection of Adams Avenue and Kegley Road in Temple. He prepared plan sheets for the installation of pedestrian signal infrastructure and upgrades to pedestrian ramps and intersection striping at an existing signalized intersection.

#### **Design Support | Transwestern Development Company | Block 36 Apartments | Austin, TX**

Matthew provided design support for the development of a traffic control plan for construction of the Block 36 Apartments, located at the I-35 SBFR and 3rd Street in Austin. He developed plan sheets for several phases of construction, including demolition, excavation, concrete pours, tower crane mobilization and demobilization, vertical construction, and sidewalk and driveway tie-in. Matthew coordinated construction activity with TxDOT and the City of Austin and ensured compliance with the requirements of both agencies. The project also required coordination with adjacent work zones in the downtown area to maintain continuous pedestrian and bicycle facilities bypassing the project. Traffic control was scheduled to not interfere with major special events planned in the area. Matthew provided support on the project through construction.

#### **Design Support | TxDOT Austin District | I-35 and Posey Road | Austin, TX**

Matthew provided design support for traffic signal, illumination and ITS design with PS&E plan sets for the reconstruction of the I-35 and Posey Road interchange in San Marcos. He prepared plan sheets for high mast, underpass and intersection illumination, including layout sheets, electrical service summaries, circuit diagrams and conduit and conductor schedules. He also completed a photometric analysis to ensure the proposed design conformed with TxDOT and AASHTO illuminance requirements.

Matthew also developed plans for the implementation of an ITS system and future traffic signal. ITS plans consisted of placing a fiber backbone and relocating existing equipment to accommodate the proposed configuration. Signal conduit and ground boxes were placed at the intersections to allow for future signalization. Matthew developed an opinion of probable construction costs at each stage of the project development process and provided support on the project through construction.

#### **Design Support | TxDOT Waco District | US 190/IH 14 (FM 2410 to I-35) | Belton, TX**

Matthew provided design support for signing and pavement marking, illumination, and ITS design with PS&E plan sets for the reconstruction of I-14 in Belton. He developed plan sheets for safety and underpass illumination, including layout sheets, electrical service summaries, circuit diagrams, and conduit and conductor schedules. He also completed a photometric analysis to study illuminance levels.

Matthew developed plan sheets for signing and pavement markings for the freeway and frontage roads, which included the design of overhead large guide signs. He also developed plans for an ITS system, which consisted of a fiber backbone connected to CCTV and DMS devices, and for the implementation of a smart work zone. He developed an opinion of probable construction cost at each stage of the project development process.



## Susan Chavez

### Environmental Task Lead



**Susan Chavez** has over 20 years of experience as a planning and environmental professional proficient in managing multi-disciplined teams to successfully deliver transportation projects. She has experience working with municipalities, as well as State and Federal agencies. Susan has the ability to recognize and provide input on strategies to avoid and minimize environmental risks and issues, and works collaboratively with project teams and clients to obtain environmental approvals.

### Project Experience

#### **Environmental Task Lead | Williamson County | Williamson County Road Bond and Pass-Through Programs GEC | Williamson County, TX**

As the Environmental Task Lead for the GEC, Susan provided environmental oversight for the Williamson County Road Bond and Pass-Through Programs. Susan was responsible for preparing, reviewing and providing status updates on environmental documents and providing oversight of the environmental process to support delivery of roadway improvements under the programs. She coordinated with GEC team members, the County's environmental consultants and TxDOT to develop environmental studies, technical reports and environmental documents in support of various roadway projects. She provided technical review of cultural resources, wetland delineation and threatened and endangered reports, as well as NEPA documents. Susan tracked project progress, identified schedule issues and potential solutions and coordinated regularly with the GEC PM to discuss status and keep the County informed.

#### **Environmental Task Lead | Williamson County/TxDOT | FM 1460 | Williamson County, TX**

As the Environmental Task Lead, Susan was responsible for preparation of an Environmental Assessment for the expansion of FM 1460 in Williamson County from 2- to 4-lane divided. She worked with the technical team to analyze constraints, develop the report, and prepare public meeting materials. She provided oversight of the historic structures survey report and coordinated with the engineers and TxDOT to avoid impacts. The project received environmental clearance in 2009.

#### **Environmental Task Lead | Williamson County/TxDOT | O'Connor Drive Extension | Williamson County, TX**

As the Environmental task lead, Susan led the preparation of an EA for the extension of O'Connor Drive in Williamson County from RM 620 to SH 45. She worked with the environmental team to analyze resources, including karst features and to minimize and avoid impacts from the new alignment. She provided oversight and management of the subconsultant to provide required karst invertebrate surveys and coordination with USFWS. She coordinated with the County and TxDOT on document preparation and reviews. A FONSI was received in October 2008.

#### **Environmental Task Lead | Travis County | Frate-Barker Road Improvements | Travis County, TX**

As Environmental Task Lead, Susan led the preparation of an Environmental Assessment for the expansion of a 2-lane facility to a four-lane facility with a continuous center turn-lane to improve safety in the corridor. She coordinated with Travis County, TxDOT and FHWA on the document reviews. The project required additional ROW and several residential and business displacements, as well as impacts to a heritage oak valued by the community. Susan analyzed environmental impacts of the alternatives and collaborated with the engineering team to identify

### Experience

Total: 20 Years

### Education

MS, Environmental Management,  
University of Houston, Clear Lake

BS, Wildlife & Fisheries Sciences,  
Texas A&M University

### Office Location

Georgetown, TX



## Susan Chavez

### Environmental Task Lead

options to minimize impacts. She prepared public involvement materials for the public meeting and hearing. The project required coordination with TxDOT and received a Finding of No Significant Impact in March 2012.

#### **Environmental Task Lead | Austin District/TxDOT | Mobility 35 GEC | Williamson/Travis/Hays Counties, TX**

As the GEC Environmental Task Lead, Susan provided oversight of environmental projects developed under the Mobility 35 Program. Susan worked with the State's consultants as well as other GEC team members to develop the appropriate level of study, provide consistency with public involvement materials and quality deliverables. She coordinated with TxDOT staff on technical reports to achieve necessary environmental approvals. Susan provided environmental oversight of the following projects under this program: I-35 Planning and Environmental Linkages (PEL) Study, I-35 at Slaughter Creek Overpass CE, I-35 at Riverside Dr. EA, I-35 from Stassney Ln. to William Cannon Dr. EA, and I-35 from Rundberg to US 290 EA.

#### **Environmental and Planning Task Lead | Austin District/TxDOT | I-35 Capital Area Improvement Program (CAIP) | Williamson/Travis/Hays Counties, TX**

As Environmental and Planning Task Lead, Susan was responsible for performing technical analysis to advance development of projects along the I-35 corridor for three sub-area corridor implementation plans covering Williamson, Travis and Hays counties. Susan led analysis of environmental constraints, prepared an inventory report, worked with the team to refine short-term, mid-term and long-term projects, and prepared technical memorandum regarding logical termini and independent utility, and conducted quality reviews of deliverables including the draft and final implementation plans. She also provided content and materials for stakeholder outreach.

#### **Environmental Task Leader and WA Manager | San Antonio District/TxDOT | I-35 NEX EA | San Antonio, TX**

As Environmental Task Leader and WA Manager, Susan worked with a multi-disciplined team to deliver an EA and FONSI (2015) on a 24-mile elevated, managed-lanes project in San Antonio. With over 50% of the project on structure, Susan worked with technical staff to identify potential noise, visual and historic structures, impacts and impacts to Waters of the U.S. from bridge columns. She coordinated closely with the engineering team, SAT and ENV staff on environmental analysis, public involvement and document reviews. The proactive environmental analysis and extensive public involvement approach minimized public controversy and allowed clearance of this \$1.5B project in 18 months.

#### **Environmental Task Leader | TxDOT Amarillo District | US 87 Widening, Environmental Assessment | Hartley and Moore Counties, TX**

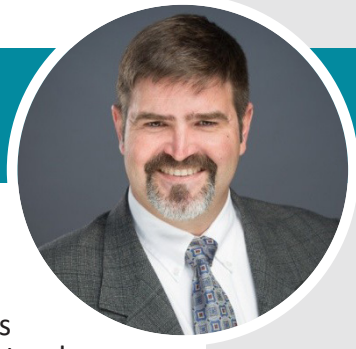
As Environmental Task Lead, Susan managed preparation of an Environmental Assessment (EA) for widening of this 20-mile section of US 87 from Super2 to a four-lane divided roadway. She coordinated closely with TxDOT and led a team of subject matter experts to develop technical reports and information for public involvement consistent with the TxDOT Toolkit and Environmental Guide. She also worked with technical staff to identify potential key constraints early in conceptual schematic design to assist engineers with minimizing and avoiding impacts to sensitive areas. Constraints included playa lakes, wetlands, water wells and residential displacement. She coordinated closely with the PM to identify a broad ROW footprint, including drainage needs, which allowed environmental technical reports to progress and meet the compressed schedule. A Finding of No Significant Impact was obtained in Summer 2021.





## John Conquest, P.E.

### Drainage Task Lead



**John Conquest, P.E.** has 27 years of experience and expertise in water resources engineering. Specialized expertise includes hydrologic and hydraulic modeling, hydraulic design, flood studies, flood insurance studies and map revision requests, storm drainage design, structural and nonstructural mitigation analysis and detention/retention basin design. Experienced in project management, water quality testing, water management, construction management, SPCC plans, dam safety analysis and the design of civil and environmental engineering projects, including roadway design, site grading, drainage, utilities and frac pond facilities. His work experience includes working with Federal, State, County, City and Private clients.

### Project Experience

#### **Drainage Manager | Williamson County | Corridor E Preservation Study | Williamson County, TX**

Drainage Manager for determining a feasible route for a new location, controlled-access facility between CR 330 and the future alignment of SH 29, a distance of approximately 5.4 miles. Project includes drainage, environmental constraints analysis, route feasibility and alternatives analysis, traffic evaluation, right-of-way preservation and preliminary schematic development for interim and ultimate conditions. In addition, John provided extensive coordination with the project team and elected official to ensure drainage solutions were viable.

#### **Drainage Design Task Lead | Williamson County | Liberty Hill Bypass | Williamson County, TX**

This project will construct a new two-lane roadway facility from RM 1869 to CR 279/Bagdad Road for 1.2 miles on new location. The project will also add turn lanes on RM 1869 and CR 279 to the Liberty Hill Bypass. The drainage analysis updated the schematic drainage report for the ultimate roadway section and provided drainage design for the interim conditions. John served as Drainage Design Task Lead and was responsible for the project drainage study, including hydrologic and hydraulic studies and modeling, and impact and mitigation analysis. John assessed impacts to nearby buildings, properties and runoff patterns, and evaluated and provided recommendations for detention and stormwater control structures.

#### **Drainage Manager | CAMPO | MoKan/Northeast Subregional Plan | Williamson/Travis County, TX**

Drainage Manager for this corridor and regional mobility study for 350 square-miles in northeastern Travis County and southeastern Williamson County. The Plan area has experienced and continues to experience high growth and development. As a developing Subregion, the transportation corridors must serve their purpose of providing safe and reliable travel for a growing area. Using a bottom-up, needs-based planning process with extensive stakeholder and agency coordination, the subregional plan proposes multimodal solutions to the corridors that are tailored to local and regional land use and future needs. Stakeholders include TxDOT, both counties, Cap Metro and the cities of Pflugerville, Round Rock, Elgin, Taylor and Austin.

#### **Drainage Manager | Williamson County | Ronald Reagan Corridor Preservation Study | Williamson County, TX**

Drainage Manager for determining a feasible route for a new location, controlled-access facility between I-35 in Jarrell and SH 95 north of Granger, a distance of approximately 12 miles. Project includes drainage, environmental constraints

### Experience

Total: 27 Years

### Education

ME, Civil/Water Resources, Texas A&M, 2000

BS, Agricultural/Environmental Engineering, Texas A&M, 1993

### Registrations

Professional Engineer:  
TX #89243, 2002  
NC #035897, 2003

### Office Location

Austin, TX



## John Conquest, P.E.

### Drainage Task Lead

analysis, route feasibility and alternatives analysis, traffic evaluation, right-of-way preservation and preliminary schematic development for interim and ultimate conditions. In addition, John provided extensive coordination with the project team and elected official to ensure drainage solutions were viable.

#### **Project Manager | Bastrop County: FEMA Grant and Disaster Relief | Flood Engineering Services | Bastrop County, TX**

Project Manager of multiple contracts to provide engineering services related to the 2016 Tax Day and Memorial Flood Events (DR-4272), 2015 Memorial Day Flood Event, (DR-4223), and the 2016 Memorial Day Flood Event for HMGP funding (HMGP DR-4272). John oversaw engineering services including review of FEMA Project Worksheets cost estimates damage assessments, hydrologic and hydraulic studies, preparation of schematic and final design for repairs.

#### **Drainage Manager | TxDOT | IH-35 (SH80 to Wonderworld Drive) | San Marcos, TX**

Drainage Manager responsible for 2.5 miles of frontage road improvements and selective ramp and mainlane improvements including complex hydraulic analysis to account for potential loss of Flood Plain storage due to frontage road widening and water quality facilities to reduce TSS loads of the new proposed impervious cover. John coordinated with prime consultant and project stakeholders regarding drainage and roadway impacts.

#### **Senior Drainage Design Engineer | City of Pflugerville | 2019 Transportation Bond Projects | Pflugerville, TX**

Senior Drainage Design Engineer responsible for the preparation of cross drainage design alternatives and drainage reporting. The project consists of design of 3 roadways - Picadilly Drive (Central Commerce to I-35 frontage road – 3,098 LF), Royston Lane (Grand Avenue Parkway to Central Commerce – 31,15 LF) and Central Commerce (City limits to Picadilly Drive – 2,113 LF) - as part of the Bond Program. The project includes plan and profile of the roadways, pedestrian improvements, environmental analyses, preliminary geotechnical analyses, hydrology and hydraulic analyses, offsite and roadway storm conveyance analyses, topographical survey and subsurface utility engineering.

#### **Drainage Analysis Lead | City of Taylor | Municipal Drainage Utility System (MDUS) Project | Taylor, TX**

Drainage Analysis Lead for development of drainage improvements for 8 local areas experiencing drainage issues in the City of Taylor. Local drainage issues ranged from ponding in the street to flooding through yards. John assisted with the development of solutions and cost estimates for each area that included roadway reconstruction, swale grading and storm sewer construction.

#### **Project Manager | City of Round Rock | Chisholm Valley Storm Drain Improvements - Area 3 | Round Rock, TX**

Project Manager for PS&E for neighborhood flood risk reduction. Previous work authorization developed flood mitigation solutions using a 2D hydraulic model to reduce local flooding within an older neighborhood constructed prior to current drainage criteria. This drainage improvement project includes design level survey, utility investigation, identification of environmental constraints, development of detailed construction plans, specification and probable cost estimates for an improved storm drainage network. Storm drain improvements include over 2,000 LF of storm drain.



## Blake Staton, P.E., S.E.

### Structures Support



**Blake Staton, P.E., S.E.**, is Garver's Austin Bridge Team Manager with 15 years of experience. He is distinguished with NCEES's Model Law designation of Structural Engineer (MLSE). His responsibilities include project management and scheduling, overseeing plan production, evaluating conceptual bridge layouts and interchange configurations and assessing improvement costs. Blake's diverse project experience includes phased bridge replacements, bridges on new alignments, bridge widening/rehab, bridge class culverts and extensions, retaining walls, noise walls, preliminary structural design studies, value engineering, load rating and evaluation of in-service bridges. Many projects that Blake has worked on have been for city, county, airport and state clients in Texas, Alabama, Arkansas, Oklahoma, Mississippi, Missouri and Tennessee. Blake also has extensive experience with the AASHTO LRFD Bridge Design Specifications and Standard Specifications for Highway Bridges. He specializes in providing structural solutions for a variety of highway bridges and other transportation-related structures.

### Project Experience

#### **Bridge Task Lead | Williamson County | County Road 366 Widening, Schematic & PS&E | Williamson County, TX**

Blake served as Bridge Task Lead responsible for preparing type, size and location information for two small hydraulic structures (multi-barrel bridge class culverts) at Bull Branch Creek and a Tributary to Bull Branch Creek.

Blake performed multiple iterations with roadway and hydraulics teams to arrive at an optimal opening that met the City of Taylor's freeboard requirements while achieving a no-rise condition. Blake employed staged construction methods to maintain traffic on route during bridge construction. Blake worked with hydraulics team reviewing velocities through the culverts to confirm siltation concerns were not present. Blake prepared cost estimates for the proposed bridge and culvert improvements.

#### **Bridge Task Lead | Travis County | Linden Road Bridge Replacement | Travis County, TX**

Blake served as Bridge Task Lead for the rural county road bridge replacement on Linden Road at Maha Creek (24.83 Sq. mi. watershed). Blake designed a 1,050-foot-long bridge to provide 18 inches of freeboard over the 100-year water surface. Blake used Tx28 girders to minimize structural depth and economize the bridge construction using TxDOT Bridge Standards. Blake also worked with roadway team to confirm feasibility of beam delivery routes using AutoTURN. The bridge was also bookended with driveways having turning radii that extended onto the bridge approaches. Blake employed crash-tested, TL-3, flexible steel barrier (T631) instead of a traditional concrete barrier to provide additional flexibility where the tangent rail on the bridge transitioned to the curves off the bridge at adjacent driveways. Blake oversaw bridge plan production and led cross discipline reviews. Blake also facilitated geotechnical subconsultant activities on the project.

### Experience

Total: 15 Years

### Education

MSCE, Structural Engineering,  
University of Arkansas, 2006

BSCE, Civil Engineering,  
University of Arkansas, 2005

### Registrations

Professional Engineer:  
TX #1121491  
AL #32352  
AR #14272  
FL #74981  
MS #20545  
TN #115375

### Office Location

Georgetown, TX

