





Austin Bridge & Road, LP (Austin) and Sundt Construction, Inc. (Sundt) have formed an alliance to design, build, and

maintain the I-2/I-69C Interchange. Both are 100% employee owned and organized through corporate structures that include heavy civil, commercial building, and industrial operating units.

Projects today require more than just intention and desire to deliver. Owners need assurances that builders have the proper equipment, capabilities and commitment to get the jobs done right. Since Austin and Sundt have been providing those assurances for over 100 years each, it made sense to merge our efforts for projects of greater demand like this one.

Since September of 2018 we have developed a detailed plan that integrates safety, quality, design, construction, and maintenance throughout the duration of the project. Our team has studied the 7.8 mile I-2/I-69 corridor and have gained a detailed understanding of project scope, challenges, constraints, and opportunities. This plan and project understanding is demonstrated in our detailed 4,300 activity project baseline schedule found in Appendix D.1.

Austin Sundt has evaluated the project's challenges and risks, and developed solutions that enhance user safety, alleviate public impact, and emphasize transparent and proactive communication within the community. Our commitment to exceeding TxDOT's project requirements is demonstrated throughout our proposal.

# THE AUSTIN SUNDT TEAM

#### **AUSTIN BRIDGE & ROAD, INC.**



The Austin name first became known in the Texas bridge building field when George Austin came to Dallas in 1889. In 1918, Charles Moore, a then employee, purchased

the construction division of the company and changed the name to the Austin Bridge Co. Almost 70 years later, in 1986, Austin established the Employee Stock Ownership Plan. Today, Austin Industries is one of the largest general contractors in the southern half of the U.S. and is the third largest merit shop contractor in America.

Headquartered in Irving, Texas, Austin is a recognized leader in the heavy highway and transportation infrastructure industry and is fully licensed and qualified to perform construction services for TxDOT. To date, Austin has successfully completed 6,500 projects including complex urban highway interchanges, tollways, runways, specialty bridges, and rail projects. Core capabilities include complex structures, concrete and asphalt paving/production and earthwork. Relevant projects include SH 45 Design-Bid-Build (DBB), ESR2P Design-Build (DB) and Midtown Express DB.

#### SUNDT CONSTRUCTION, INC.



Sundt was founded in 1890 by Mauritz Martinsen Sundt, a Norwegian ship carpenter who immigrated to the United States as a teenager. Currently ranked among the 100 largest general contractors in the country, Sundt was also named the nation's safest construction company by the Associated General Contractors of America in 2006 and 2016. Sundt's DB experience dates back 25 years and includes a portfolio of \$4.4B. This includes completing San Antonio's first ever transportation DB project and finishing the one of a kind Fort Worth West 7th Street Bridge one month ahead of schedule. Other relevant projects include San Antonio's Hausman Road DB and the I-10 DBB (Go-10) both in Texas and the SR202L DB in Arizona.

#### **TEAM STRUCTURE**

Bridgefarmer & Associates (BAI) is the lead design firm for the project. BAI is a full-service consulting and engineering firm with the reputation and resources necessary to fulfill this important role. Within the past 5 years, BAI has prepared, as the lead engineering firm and as a partner to other firms, over \$5B in heavy civil infrastructure projects in Texas, Oklahoma, and Arkansas.

We also enlisted the help of numerous design and consulting firms to participate with our team. A few include:

**IOC Construction Company** Lead Maintenance

Intertek PSI Lead IQF

**TEDSI Infrastructure Group** | Traffic Engineering | Local DBE

**B2Z Engineering, LLC** Geotechnical and General Civil Engineering Local DBE

R. Gutierrez Engineering Corp. | Drainage Design | Local DBE SSP Design | Architectural Design | Local

Our team member organizational chart can be found on page ES-2.





### A. TECHNICAL PROPOSAL OVERVIEW

Austin Sundt has organized the Technical Proposal according to the requirements in the Instructions to Proposers (ITP), Exhibit E. We have included a reference copy of Exhibit E, as requested. Included in this binder are sections A. Executive Summary; B.

Proposer Information, Certifications & Documents and C. Technical Solutions. Appendix D is submitted in a separate 11x17 binder for the schedule and bridge drawings. Roll plots can be found in the labeled tubes.

## B. CHANGES TO QS

There are no changes in Austin Sundt's Project Approach submitted in the QS.

### C. CHANGES TO PROPOSER'S ORGANIZATION

Since submission of our QS, we have designated Mofid Nakhaei, PE as the Lead Structural Engineer, Thuy Nguyen, PE as the Lead Maintenance of Traffic (MOT) Design Engineer, and Robert Bly, PE

as the Independent Quality Firm Manager. Resumes for each are included with Form B-2. Austin Sundt remains the same integrated organization presented in our QS.

### D. PROPOSED MANAGEMENT

We have committed management staff with the experience and qualifications to successfully complete this project. With 33 years of experience, Austin's Brian Salerno, will serve as the Project Manager. His resume includes an impressive portfolio of highvolume complex interchange work including serving as the Project Manager for the \$285M IH 635/US 75 High Five Interchange in Dallas and Project Sponsor for the \$220M Loop 12/SH 114 Interchange in Irving.

Sundt's Heavy Civil Area Manager, Abel Ortiz is our Construction Manager. He has successfully delivered complex highway and civil projects for over 20 years in Texas and is the driving force behind self-perform work on Sundt's most challenging projects. Abel played a vital role on the \$1.2B DFW Connector project, designed to relieve congestion and double traffic capacity on 8.4 miles of state highways 121 and 114. He has lived and worked in the Rio

Grande Valley and knows how to manage all trades to deliver the project on-time.

Clear delegation of decisionmaking authorities, thorough monitoring and reporting of performance, and a 24/7 availability policy of senior managers will ensure efficient performance of day-to-day operations.

Each Major Participant commits to provide the specified people for the Project.

NAME	YEARS EXP.
Brian Salerno	33
Abel Ortiz-Monasterio	24
David Williams, PE	34
Chase Myers, PE	18
Thuy Nguyen, PE	33
Mofid Nakhaei, PE	10
Tony Arredondo, PE	34
Joe Graff, PE	40
Scott Stockburger, PE	30
Rory Meza, PE	31
Robert Bly, PE	20
Richard Olmos	9
Juan Abrigo	16
Total Years Experience	332

# E. TECHNICAL SOLUTIONS SUMMARY

## PROJECT MANAGEMENT VARS

Austin Sundt prides ourselves on providing a higher level of service to our clients and communities. Both Austin and Sundt are industry leaders in executing DB and alternate delivery projects.

Our 13 PMP VARs are innovative processes, procedures and approaches we will use to enhance our project management plan. Each was developed specifically with the aim of exceeding TxDOT's goals. They are discussed in detail in section C.1.

### **QUALITY MANAGEMENT VARS**

Our QMP will be fully compliant with TxDOT's Quality Management Plan requirements and will be certified per ISO 9001. All project management and personnel will be held accountable to the random and continuous checking of their work. Our QMP will

establish the foundation, processes and procedures for continuous improvement in every aspect of the I-2/I-69C Interchange Project. VARs 14-23 are discussed in detail in section C.2 and will be included in our OMP.

### SAFETY AND HEALTH VARS

Austin Sundt, embraces our moral obligation to provide a safe and healthy project site for employees, subcontractors, visitors, TxDOT, and the general public. Both Austin and Sundt are industry leaders in construction safety, including: hazard identification and mitigation, incident prevention, training, and state-of-the-art technology that incorporates predictive analytics to anticipate

training needs and hazardous conditions. We are proud of our safety performance and will relentlessly integrate our safety-first culture into all aspects of design, construction and maintenance. Our efforts will complement TxDOT's Mission Zero safety program and will support your effort to **#EndTheStreakTX.** VARs 24-29 are discussed in detail in C.3.

# **DESIGN & CONSTRUCTION PLAN**

The Austin Sundt team has developed a thoughtful and comprehensive approach to this project's design, construction and maintenance. Our approach achieves all of TxDOT's objectives and incorporates solutions to traffic control, phasing, roadway, structures, utilities and drainage design. Our team vetted 52 potential ATC concepts and significant design refinements that resulted in efficient traffic control schemes, reduced construction durations and minimized capital costs.

# CONSTRUCTION STAGING, SEQUENCING & TRAFFIC MANAGEMENT

Our MOT plan maintains traffic on DC3 and 4 and only requires 500 of the 550 days allowed for DC shutdown.

We thoughtfully and purposefully built our MOT plan with TxDOT's Project Goals and Objectives in mind. Our design satisfies all stated objectives, exceeds expectations, and adds value by:

- Maximizing available work areas which results in fewer traffic switches
- Keeping DC 3 and 4 open during construction and minimizing DC 2 closure
- Implementing a two-phase mainlane MOT design that eliminates a center median phase (see approved ATC 4)
- Using flexible MOT phases that are independent of each other and allow for work areas to advance at different times
- Incorporating customized phase-specific hurricane evacuation contingency plans (see VAR 24)

#### BRIDGES, RETAINING WALLS AND GEOTECHNICAL PLAN

Austin Sundt eliminated the use of steel girders in favor of standard concrete TX girders, which reduces capital and 0&M cost and provides schedule certainty.

**ATC 14-Jackson Rd. Overpass:** Eliminates the use of steel girders by utilizing an intermediate bent in the median of Jackson Rd. The median bent shortens the span length over Jackson Road and allows for the use of conventional TX girders. The ATC adds additional benefit by re-configuring Jackson Road to accommodate an additional southbound left-turn lane and will ultimately allow for three lanes of traffic and a dedicated left-turn lane in each direction of travel. See section C.4.3 roadway for additional details.

DC 3 and 4 will be constructed in two phases. We performed a demolition analysis on the existing DCs to determine the extent to which the structures can be demolished without compromising the safety on the remaining structure. We developed an innovative design to avoid conflicts with existing structures and walls while providing an economical substructure design. We raised the profiles of proposed DC 2 and 3 and designed cantilever bent caps to avoid conflicts with the existing DC 2 and 3 bridges. After traffic is switched to the new DCs, we will demolish the existing DCs and complete the remaining portion of the proposed bridges.

#### **ROADWAY**

Austin Sundt analyzed the TxDOT schematic, as-builts, drainage systems, traffic studies, geotechnical studies, and existing geometry to identify innovative solutions to expedite construction and lower initial project costs, while meeting the project requirements. As detailed below, ATC 13, and other design refinements are proposed to facilitate TxDOT's objectives.

ATC 13 revises the alignments of DC 1 and Ramp RWX281 to reverse the order of the ramps from the TxDOT schematic. The new ramp configuration eliminates a grade separation of the ramps, minimizes the length of the DC 1 bridge and replicates the existing ramp configuration. Our traffic impact analysis showed that ATC 13 will improve traffic operations for DC 1 compared to the schematic design in both the 2025 and 2045 design years. Benefits include:

- Maintained driver expectancy
- Shortened construction duration / closure of DC 1
- Avoidance of an AEP Texas overhead electric relocation
- Maintains access to adjacent properties

Our pavement design is based on TxDOT's Pavement Design Guide and field testing data. The pavement designs were performed using TxDOT's FPS-21 software and design checks were performed using triaxial and mechanistic analyses within the software.

#### DRAINAGE

Austin Sundt's preliminary analysis indicates that much of the existing storm drain along the project has adequate capacity to meet project requirements. Undersized existing storm drain will be replaced to meet performance criteria. Our design does not include improvements to portions of drainage systems under/along frontage road pavement, which is only undergoing pavement rehabilitation.

Our construction and drainage plan will construct the downstream permanent systems in Phase 1 early, this eliminates the need for extensive temporary drainage systems. Our design includes the construction of additional detention ponds and ditches that exceed the project storm water storage requirements by 4.05 Ac-Ft, which further reduces impacts to the existing drainage infrastructure.

#### PRELIMINARY BASELINE SCHEDULE

The schedule is a management tool we will use to plan the design, utility relocations, construction, warranty and CMA work. Our schedule supports all aspects of the project, from developing bid packages to coordinating and implementing utility relocations.

Our PBS1 already meets the resource requirements of Project Baseline Schedule (PBS2). This allows us to understand and prepare for the resource requirements of the project to meet the required contract duration. Austin Sundt was challenged with the 1,186 days to substantial completion from NTP1. We developed and reviewed two independent construction schedules to deliver the project on time, while minimizing user and community impacts via a reduction in DC closures. Our proposed PBS1 is achievable, offers no surprises in meeting a substantial completion date 1,186 days from NTP1, and reduces the DC closure needs from 550 to 500 days.

Our team who developed the MOT concept also managed the PBS1 CPM. This ensures that the same plan used to develop MOT is translated & incorporated into the project schedule.

The schedule critical portion of the project centers around the sequencing of the DCs as described in section C.4.1. Our MOT phasing scheme allows for the widening sections of I-2 to have considerable float. Our plan is to use this float to better level and allocate our resources. It allows the project team to onboard the required manpower and equipment to reach our peak demand without running out of available work. The independent nature of the widening scope areas also provides the opportunity to isolate packages for subcontract work if dictated by resource demands.

#### PROJECT FEASIBILITY

Austin Sundt has reviewed the project documents, submitted questions to the RFP, and is satisfied with the responses such that we have priced the project scope and risk accordingly. We have developed preliminary plans that incorporate design refinements and approved ATCs. The personnel assigned to the project are very experienced with TxDOT construction and will commit to developing a strong teaming relationship with the District.

## F. DBE APPROACH SUMMARY

Austin Sundt is committed to exceeding TxDOT's goal for DBE participation and will achieve 7.0% during design and construction. Our team includes several DBE firms, and we have initiated a DBE solicitation process that identifies potential DBE subcontractors to meet or exceed the target.

We will proactively reach out to the DBE and local small businesses to participate on all potential bid packages and scopes of work. We will perform outreach and work with potential DBEs to define the scope of work, understand plans and specifications, and adjust packages to meet the firm's capabilities when possible.