



EXECUTIVE SUMMARY

A

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Once completed, the new I-2/I-69C Interchange will reduce congestion, improve traffic mobility and connectivity, and optimize the interchange and ramp operations. These critically important improvements will significantly enhance the roadway conditions for the traveling public along I-2 and I-69C in the cities of McAllen, Pharr, and San Juan. Dragados-Pulice provides an innovative approach to design and construction that will significantly minimize impacts during construction and open significant portions of the Project early to benefit the local communities. Our proposal includes numerous Value Added Responses (VARs) that exceed the RFP requirements to ensure we safely deliver a high-quality Project on-time and within budget while working collaboratively with TxDOT and its consultants.

a) Organization and Contents of Technical Proposal

Our Technical Proposal follows the order of the checklist provided in ITP, Exhibit E. We have provided a referenced checklist of Exhibit E in the beginning of the Technical Proposal binder.

SECTION	SUBMITTAL DETAILS	FORMAT
A. Executive Summary	Required information per ITP Exhibit B, Section 3.1	Submitted in an 8.5x11-inch binder, with the proposal bond packaged separately
B. Proposer Certifications	Required information per ITP Exhibit B, Section 3.2	
C. Technical Solutions	Required information per ITP Exhibit B, Section 4	
D. Appendices	Appendix D-1. Preliminary Project Baseline Schedule	Submitted in the 11x17 binder
	Appendix D-2. Bridges Concept Plans	
	Appendix D-3. Drainage Detention Plans	
	Appendix D-4. Proposed Pavement Designs	
	Appendix D-5. Maintenance of Traffic (MOT) Concept Drawings	Submitted on Roll Plots
	Appendix D-6. Retaining Walls Concept Plans	
	Appendix D-7. Roadway Concept Plan And Profile Schematic Sheets	
	Appendix D-8. Drainage Concept Plans	

b-c) Summary of Changes

Dragados-Pulice has not made any changes to our QS other than to more fully develop our approach to delivering the Project. We have not made any changes in Proposer’s organization, Equity Members, other Major Participants, and Key Personnel since submission of the QS.

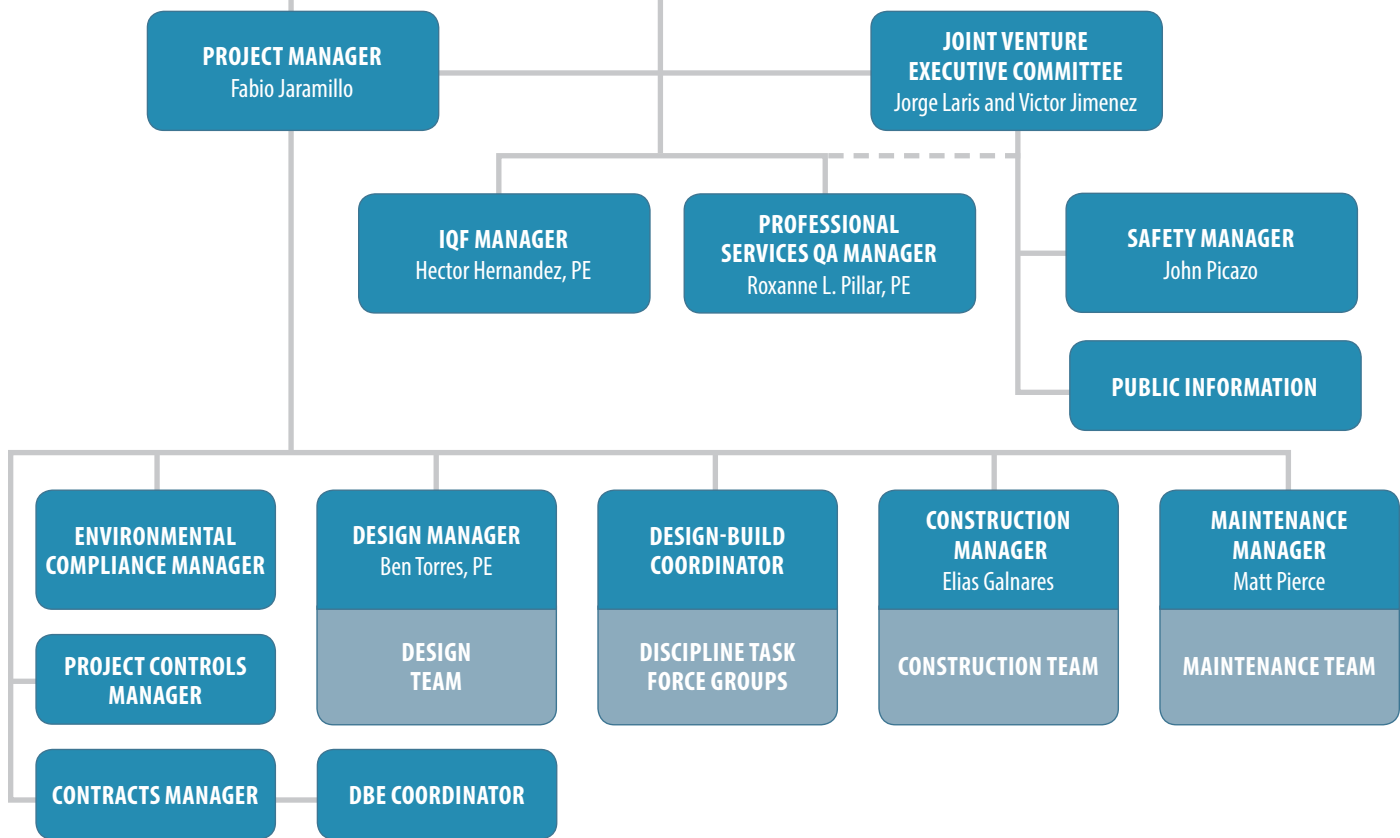
d) Proposed Management, Decision Making, and Day-to-Day Operation Structure

As Proposer and Lead Contractor, Dragados-Pulice Joint Venture will lead all aspects of the Project with support from Michael Baker International as Lead Engineering Firm and additional local and specialized firms that bring relevant experience in Texas. As shown in the summary organization chart on the following page, Project Manager Fabio Jaramillo will lead our day-to-day operations and be TxDOT’s single point of contact. He will have full responsibility for all work and will be supported by the Joint Venture Executive Committee to allocate the necessary resources to deliver the Project.

Our day-to-day operational structure facilitates quick and effective decision-making amongst our internal team, TxDOT, and key stakeholders. We will make decisions and resolve issues at the lowest organizational level. We will hold weekly Project Steering Committee meetings with the top management from our team and TxDOT, invite TxDOT and its consultants to be active members in our other regularly meetings, and commit to utilizing formal partnering. Each Major Participant has committed to supply the personnel specified in the RFP.



Summary of Proposed Organization



e) Summary of the Technical Solutions

Project Management

Our Project Management Plan (PMP) is based on the proven PMPs that our team members have implemented on other successful highway projects in Texas and will be tailored to the specific needs of this Project and the local area. The central tenet of our PMP is effectively managing and mitigating risks to safely deliver the Project on schedule and within budget. Our PMP includes several notable VARs that will allow our team to effectively manage the most critical risks on the Project while facilitating collaboration and successful working relationships within our internal team and with TxDOT and its consultants, third parties, and the public.

Quality Management

Our quality approach is based on ISO 9001 principles and promotes the proactive prevention of quality exceptions instead of solely relying on reactive inspections. We will design, build, and maintain quality into the Project at each step of the way through detailed planning of the work. We will be transparent in our quality processes and procedures while working alongside the IQF, PSQAM, and TxDOT's quality team to create a culture of quality in every facet of the Project. We have included numerous quality VARs that are based on the best practices, lessons-learned, and unique project management solutions from our other design-build projects in Texas and throughout the U.S. and the rest of the world.

Safety and Health Plan

Dragados has become the first construction company in the U.S. to receive the ISO 45001:2018 certification for its Safety, Health, and Environmental Management System, and we commit to implementing this system on the Project. The internationally-recognized ISO 45001 certification emphasizes prevention and continuous improvement and engages all levels of workers, including active involvement of top management. Our approach will set a proactive safety culture that is focused heavily on leading performance indicators, as opposed to reacting to lagging indicators. We empower all employees with the responsibility to stop work to prevent unsafe conditions or acts.

Design and Construction Plan

The Dragados-Pulice team has developed and incorporated alternative technical concepts (ATCs) and other innovative approaches to design and construction that will significantly enhance our ability to achieve TxDOT's objectives for the Project. An overview of the key benefits of our Design and Construction Plan is provided below.

Construction Staging, Sequencing, and Traffic Management

The Dragados-Pulice team's approach to construction staging, sequencing, and traffic management includes the following innovative solutions that minimize disruptions to the traveling public and inconvenience to communities by expediting construction and significantly reducing the need for full closures of the direct connectors (DCs):

- Eliminates the need for a full closure of DC3 with ATC 14, which provides a temporary DC3 in a new location that will deliver direct connection between I-69C SB and I-2 EB and is operationally comparable to the existing one-lane DC3
- Allows for concurrent demolition of existing DC3 and DC2 and concurrent construction of new DC3 and DC2 in an expedited and safer manner with implementation of ATC 14
- Minimizes full closures of DC2 and DC4 by making refinements to the wall and bridge limits of the new tie-ins to I-2 and by constructing temporary ramps to access existing tie-ins.
- Eliminates 1,100 feet of DC1 bridge construction with ATC 15, resulting in more efficient construction and less full closures
- Segments the work and developed a simplified traffic phasing solution that will open 4.5 miles of the Project several months early, including the newly constructed mainlane on I-2
- Shortens the pavement construction duration and minimized associated impacts with ATC 16 and ATC 17
- Simplifies the construction phasing to limit the number of traffic shifts, resulting in fewer delays, safer conditions, and better ability to meet driver expectations.

ACTIVITY LEGEND

- New Construction
- Temporary Construction
- Demo
- Completed Construction



PHASE 1, STEP 1



PHASE 1, STEP 2



PHASE 2, STEP 1



PHASE 2, STEP 2



PHASE 3, STEP 1



PHASE 3, STEP 2



PHASE 4, STEP 1



PHASE 4, STEP 2



COMPLETED INTERCHANGE

Bridges, Retaining Walls, and Geotechnical

Our approach to bridge design maximizes the use of low profile Tx40 and Tx46 girders to maintain existing vertical clearance and minimize long-term maintenance. We propose a steel span over Jackson Road to minimize impacts by clear-spanning over UPRR and accommodating future improvements. Our bridge design reduces the number of bents and eliminated foundation conflicts with utilities and walls. We incorporated TxDOT Standard MSE and soil nail walls with locations matching the locations in the TxDOT Schematic. Our proposed plan for geotechnical investigations that places a high priority on minimizing property owner intrusions. By using locally-based L&G Engineering, we provide a team that understands the Project area and underlying soils and is equipped to perform any and all project drilling and testing needs.

Drainage

We focused our drainage design efforts on the development of hydraulic models of both the existing and proposed drainage systems in order to maximize the use of the existing drainage system. Detention facilities reduce the peak discharge at the outfall channels and help prevent localized flooding. Our proposed ditches and detention ponds mitigate adverse impacts from additional roadway-induced runoff. By routing the storm drain systems through detention facilities, our approach allows for the temporary storage of runoff and maintains the peak discharge rate at the outfalls at or below their current levels.

Roadway

We made several refinements to the roadway design to enhance safety, reduce schedule risk, and minimize impacts to the public. For example, ATC 15 adjusts the location of the proposed DC1 abutment and tie-in on the approach side of WB I-2 by shifting ramp RWX281 to the east. This eliminated the braid between RWX281 and DC1

shown in the RFP design and places the approach of D1 to the west of the exit ramp, which increases the weaving distances between ramps to the frontage roads and minimizes closures of DC1. Our enhancements to the pavement design with ATC 16 and ATC 17 will reduce the total amount of quantities and the associated costs and required construction materials testing.

Preliminary Project Baseline Schedule

We developed a credible schedule to deliver the Project within 1,156 days after NTP1 that is based on realistic assumptions and production rates. We divided the Project into four geographical segments according to work type, isolating the critical interchange work in its own dedicated segment. This approach allows our team to complete non-critical segments independent of the interchange work and open significant portions of the Project several months early. Key to our approach to scheduling the Project was to focus on minimizing full closures of DCs through the innovative approaches to construction staging, sequencing, and traffic management discussed above.

Project Feasibility

The complex configuration of the I-2/I-69C Interchange represents a challenge to meet the schedule requirements and permitted closures for the design and construction of the Project. Our team brings solutions that not only reduce the construction duration but that also improve traffic mobility and operations to the final configuration. Further, during construction it will reduce closures, reduce inconvenience to the surrounding communities, create a safer environment, and enhance traffic flow and corridor mobility as a hurricane evacuation route. We have anticipated potential issues with utilities, railroad, and third party approvals that could affect the feasibility of finalizing the Project on time as well as identified the necessary steps to mitigate these problems.

f) Satisfying the DBE Requirements

The Dragados-Pulice team has already included multiple local and/or DBE firms on our team during the RFP phase, such as Camacho-Hernandez & Associated, LLC, RODS Subsurface Utility Engineering, Inc., RODS Surveying, Inc., and R.O.W. Surveying Services, LLC. Upon award, we will continue our efforts in making contractual commitments to additional firms upon award of the contract and into project execution. In addition to the standard requirements in the DBE Performance Plan, we will implement the following VARs relating to the Good Faith Efforts (GFE):

- Use LCP tracker in combination with TxDOT's Diversity Management System
- Continue holding quarterly outreach events and one-on-one meetings with local and DBE firms
- Continue partnering with supportive service organizations that can help stabilize and grow local and DBE firms
- Conduct ongoing DBE/EEO training for project personnel and hold pre-construction meetings with subcontractors to train them on DBE/EEO requirements