Executive Summary

Executive Summary

Blueridge Transportation Group (BTG) was formed with the singular purpose of exceeding TxDOT's goals and expectations in the delivery of the design, build, finance, operation and maintenance of the SH 288 Toll Lanes Project in Harris County (the Project). BTG is a preeminent group of companies from Texas and around the globe with proven performance delivering large-scale P3 transportation projects.

BTG team members have been working together in a co-located office in Houston for nearly two years developing a best value approach that improves mobility, optimizes operational life-cycle performance, and promotes the use of innovative technologies and practices. As a result of our integrated efforts, BTG is delivering an innovative techncial solution that includes TxDOT approved ATC 5A, which provides at grade toll lanes at the IH 610 interchange and incudes 75% of the IH 610 Interchange Work, resulting in significant future cost savings.

BTG's approach to delivering a best value, high quality Project that is safely executed on time and on budget centers on six key philosophies embodied by the icons below. These icons can be found throughout our proposal highlighting key features and benefits of the BTG proposed solution.

Innovation	**We have listened to TxDOT's Project concerns and desires and have developed an innovative approach that provides significant value.** Innovative solutions such as ATC 5A (IH 610 interchange), ATC 5D (toll configuration improvements), and refining the alignment at specific locations will result in significant future cost savings to achieve the IH 610 Ultimate Configuration, lower maintenance costs, reduce safety risks for our workers and the traveling public, and minimize impacts to adjacent properties.
Performance	**With 125 successful P3 projects across the globe, the BTG Team brings a track record of proven performance.** With leadership from elite talent like Project Manager Alvaro Muelas, our team has relevant knowledge, practical experience, and is ready to mobilize. Alvaro recently led the on time, on budget completion of the $1.2 billion I-595 Corridor Improvements Project in Florida, which successfully transitioned from construction to full operations in March 2014.
One Team	**Our "One Team, One Project" philosophy prioritizes the success of the Project as a whole.** Our team is structured so that all decisions are made under the umbrella of what is best for the Project long-term. By integrating all disciplines early in the design process, we were able to look ahead and provide a sustainable solution that addresses the broader issues of constructability, life-cycle considerations, energy efficiency, and long-term reliability.
Safety	**Safety is our top priority and our goal is zero incidents.** We have a team of safety experts that are independent of the design, construction, and operations and maintenance (O&M) production teams, and oversee the health and safety performance of our workers and the Project. Our employees will be empowered with stop work authority to report unsafe conditions and will have the necessary training and tools to ensure a safe and secure work environment.
Commitment	**We have a long-term commitment to the State of Texas that extends beyond this Project.** We understand our role as a member of the community and as a partner with TxDOT and Harris and Brazoria counties. Our approach ensures that the local communities benefit from the advantages that a Project of this size can provide. We commit to designing, building, and maintaining the Project with a local workforce and continuing to provide opportunities for disadvantaged business enterprises (DBEs).
Reduced Risk	**Leveraging our robust financing structure and project management expertise, we were able to carefully analyze and assess Project risks and develop specific approaches to mitigate and manage them.** Our solution has already mitigated identified risks, and our team structure ensures that all risks are assigned to the party which is best suited to handle them. We welcome TxDOT's participation as part of our risk management team, so that we can work together to continually identify, analyze, and mitigate risks as the Project evolves.

(a) Organization and Contents of Proposal

BTG's Technical Proposal has been organized to follow the order of the Technical Checklist.

Organization and Format	Contents
8.5x11 Three Ring Binder	Executive Summary
8.5x11 Three Ring Binder	Proposer Information, Certification & Documents Volume 1 of 2
8.5x11 Three Ring Binder	Proposer Information, Certification & Documents Volume 2 of 2 Appendix A - Key Personnel Resumes and References
8.5x11 Three Ring Binder	Project Development Plan
Roll Plots	Appendix B - Proposer Schematic
11x17 Three Ring Binder	Appendix C - Preliminary Project Baseline Schedule

(b) Changes to Qualifications Statement (QS)

BTG has not made any changes to our QS with the exception of TxDOT's approved changes to Proposer's Organization and Key Personnel discussed below.

(c) Major Participants and Changes in Proposer's Organization

Major Participants - The chart at right details BTG's Major Participants.

Equity Members: BTG's Equity Members are ACS Servicios y Concesiones S.L., acting through its U.S. subsidiary ACS Infrastructure Development, Inc. (ACS), InfraRed Capital Partners, acting in its capacity as manager for and behalf of each of the several limited partnerships constituting InfraRed Infrastructure Fund III (InfraRed), and Shikun & Binui Concessions USA, Inc. (SBC USA), collectively the Equity Members. The Equity Members will form a Project-specific special-purpose entity (the Developer), which will obtain financing, oversee design and construction, and perform the O&M responsibilities of the Project.

Performance

BTG's Equity Members are P3 financing experts who bring extensive knowledge of local and global financial markets and proven experience delivering similar projects. Since 2006, the Equity Members have collectively structured financial plans, secured debt facilities, achieved financial close, and invested equity in 11 P3 projects in North America. These projects have an aggregate investment value exceeding $10.7 billion and include nine large-scale transportation projects (one of which utilized TIFIA). This vast experience has built a foundation of deep-rooted relationships with leading financial institutions and P3 advisors, ensuring BTG delivers a robust financing plan utilizing the most competitive funding sources and providing the best value for money to TxDOT.

Lead Contractor: Almeda-Genoa Constructors (A-GC) is a fully integrated joint venture between Dragados USA, Inc. (Dragados), Pulice Construction, Inc. (Pulice), and Shikun & Binui America, Inc. (SBA), collectively the DBJV. The DBJV team members employ over 1,000 professional staff and over 2,000 craft personnel in North America and have nearly 20,000 employees world-wide. In addition, the DBJV has integrated well-respected local firms James Construction Group and MICA Corporation to perform key elements of the work. To further strengthen our team, Shikun & Binui Ltd. (SBL) will support and guarantee the performance obligations of SBA, while Dragados and Pulice will receive the support of their parent company Dragados S.A.

Lead Engineering Firm: Kellogg Brown & Root Services, Inc. (KBR) will be responsible for the Project's design. With its global headquarters in Houston, KBR brings more than 90 years of civil engineering and construction experience in Texas. KBR is one of the world's premier engineering and construction companies employing approximately 27,000

people in more than 70 countries. KBR will be supported by a team of local, specialized design subconsultants.

Lead O&M Firm: Utilizing the experience and in-house resources of the Equity Members, the Developer will self-perform the O&M responsibilities of the Project. The Equity Members collectively have the O&M responsibilities for over 55 highway systems and over 3,850 miles of highways, including 900 lane miles in North America. With our on-going O&M responsibilities on projects such as I-595 in Florida, A30 in Quebec, South Fraser Perimeter Road in British Columbia, and Tyne Tunnel in the UK, our Equity Members are seasoned and experienced operators of key transportation corridors and will apply our unique knowledge of operating and maintaining highways with the use of local resources through various jurisdictions in all climates and conditions similar to the Project.

Changes to Proposer's Organization, Equity Members and Key Personnel since QS

BTG's technical proposal reflects an enhanced organizational structure, which was updated to meet the evolving needs of the Project and tailored to match our Project-specific design, construction, and O&M approaches described herein. All changes outlined below have been approved by TxDOT.

- Dragados USA, Inc. (a member of the ACS group) replaced J.D. Abrams, L.P. as a member of the Lead Contractor. As part of this change, Rafael Molina from Dragados was designated as Construction Manager, and the shareholder percentages of the Lead Contractor's Design-Build Joint Venture were adjusted to reflect the following:
  - Dragados USA, Inc. – 30% (managing partner)
  - Shikun and Binui America, Inc. – 50%
  - Pulice Construction, Inc. – 20%
- As a part of corporate restructuring for tax considerations, SBL was substituted by SBA as a Member of the Lead Contractor and by SBC USA as an Equity Member. SBA and SBC USA are the United States (U.S.) subsidiaries of SBL that were specifically incorporated for the performance of infrastructure construction projects in the U.S.
- To fulfill the roles of the new Key Personnel positions that were added in the RFP, we included Amit Goldwasser as Financial Manager and Robena Jackson as Public Information Coordinator
- To better match the contractual structure of our team and to meet the specific requirements of the RFP, BTG replaced the following Key Personnel identified in the QS

Role	New Personnel	Replaced Personnel
Quality Manager (dual role)	Alexey Vista, PE	Akiva Tiberg
Safety Manager (dual role)	Alexey Vista, PE	Daryl Daniels
Environmental Compliance Manager	Daniel Britt Akins	Douglas Hagemeier

While Daryl Daniels and Douglas Hagemeier are no longer in Key Personnel roles as defined by the RFP, they are both still part of the BTG Team and will perform the roles of Design-Build Safety Manager and Design-Build Environmental Compliance Manager, respectively.

(d) Project Development Plan

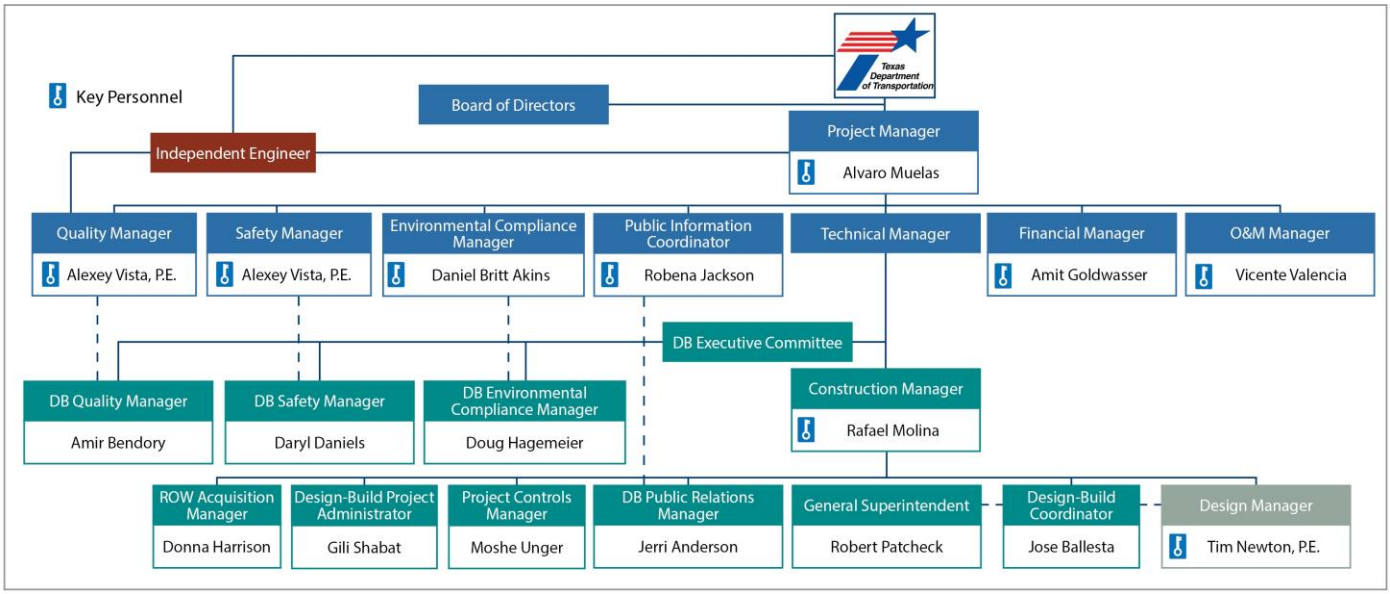
We will manage the Project with a proven Project Management Plan (PMP) that details our managerial approach, strategy, safety, and quality procedures to design, build, operate and maintain the Project to achieve all of the requirements of the CDA. BTG team members have recently implemented the core principles of this PMP on the successful I-595 project that was recently completed on time, on budget and has successfully transitioned to operations.

(i) Management, Decision Making, and Day-to-Day Operation Structure

BTG's "One Team – One Project" philosophy is built upon our shared objectives for the Project's long-term quality and performance and the inherent alignment of interests that stems from team member participation in multiple levels of the Project. BTG team members ACS, InfraRed and SBC USA will participate at both the Equity and O&M levels. Additionally, ACS and SBC USA have affiliated companies participating at the Lead Contractor level through Dragados and Pulice (affiliates of ACS) and SBA (affiliate of SBC USA). Additionally, BTG team members are contractually structured as fully integrated entities at all levels, in which each party shares the risks and benefits, with no special interest or scope assigned to any one party within the Project level. This structure enables

us to achieve an optimal allocation of the Project risks and ensures that all team members share the common objective of safely delivering a quality project on time and on budget.

BTG's well-defined management structure identifies Project roles and responsibilities, establishes clear reporting lines, and builds in ample opportunity for interaction across disciplines. A summary organization chart illustrating BTG's day to day operation structure shown below.



Decision-Making Process

Internal decision making between the Developer and the Lead Contractor will follow the provisions outlined in the Design-Build Contract, which clearly defines the roles and responsibilities of the individual parties. Among the Equity Members, the decision-making process and the dispute resolution procedures will be governed by the Developer's LLC Operating Agreement. The Developer will be managed by a Board of Directors. Should a Project issue escalate to the Developer's Board of Directors, a formal step by step resolution process is in place to ensure the Project stays on track.

Should a dispute arise, BTG's overarching dispute resolution process utilizes an "escalation ladder" which aims to resolve disputes at the lowest Project level, before escalating the issue "up the ladder." By empowering our personnel with decision-making authority within their areas of expertise, we can effectively achieve the timely resolution of disputes. A clear hierarchal structure to escalate issues and defined timeframes for resolution will help to resolve issues before they can negatively impact the Project's schedule or budget.

In accordance with the terms of the RFP, in the event of a dispute between or among the Parties, no Party shall be entitled to stop, hinder, or delay work on the Project.

Statement that Each Major Participant has committed to provide the Specified People

Each Major Participant of the BTG Team commits to provide the required key and otherwise specified personnel.

(ii) Quality Management of the Project

BTG's comprehensive Quality Management Plan (QMP) will comply with ISO 9001:2000 principles and will be comprised of the Design Quality Management Plan (DQMP), the Construction Quality Management Plan (CQMP), and both the Operations Management Plan and Maintenance Management Plan. The QMP will describe the system, policies, and procedures that ensure the Work meets the requirements of the CDA and provides documented evidence of such.

Quality Manager Alexey Vista, PE will oversee the entire quality program and will report to Project Manager Alvaro Muelas to maintain independence from the design-build production team. Design-Build Quality Manager Amir Bendory will oversee the day-to-day design and construction quality assurance (QA) elements. Reporting to the DB Quality

Manager will be a dedicated Design QA Manager and Construction QA Manager who will lead the design and construction QA teams, respectively. Quality control staff will remain independent of the QA staff and only have responsibilities in the production of the Work as part of the design organization under Design Manager Tim Newton, PE, the construction organization under General Superintendent Robert Patcheck, and the maintenance organization under O&M Manager Vicente Valencia. Our quality management at all levels will have the authority to stop Work for quality-related issues.

The BTG Team will work closely with the Independent Engineer and entities with jurisdiction in all matters related to the Work, including their review, inspection, and oversight of design, construction, and O&M of the Project and design and construction of Utility Adjustments.

iii) Working with TxDOT and Third Parties and Resolving Conflicts

Commitment

Our interface approach facilitates collaboration and coordination with TxDOT, its consultants, applicable third parties, and relevant federal, State, and local agencies, including local police and fire departments. Our interface approach revolves around two key principles:

- **Partnering -** We commit to fostering a cohesive relationship with TxDOT through formal partnering to address and achieve reciprocal goals. Within 90 days after the Effective Date, we will attend a team building workshop and sign a partnering charter to govern the process of partnering for the Project. We will hold regular partnering meetings that will address specific interface issues, oversight interface issues, division of responsibilities, communication channels, application of alternative resolution principles, and other matters.
- **Integration -** In line with our "One Team, One Project" philosophy, we welcome participation and collaboration from TxDOT, its consultants, major third parties, and other agencies by inviting them to attend meetings, such as weekly progress, monthly CPM schedule meetings, and task force meetings to discuss work that may impact their work.

Reduced Risk

BTG recognizes the importance of adjoining projects to be compatible and fully integrated to provide a smooth, safe transition of traffic between the toll lanes on both projects. We will coordinate with Brazoria County and Brazoria County Toll Road Authority for the design, construction, and O&M elements related to the interface between our contract and the Brazoria County Project, in accordance with the interface specifications set forth in the CDA and the Technical Provisions. To facilitate coordination, we will invite the Brazoria project team to participate in meetings that relate to the interface between the projects. TxDOT will also be invited to participate in all such meetings and be kept fully informed on any proposed changes to the interface specifications. Likewise, we will also coordinate with Harris County Toll Road Authority (HCTRA) for the interface between the Project and BW 8.

Resolving conflicts

Our goal is to resolve conflicts with TxDOT before they become disputes. As part of our initial partnering session, we will establish a hierarchical conflict resolution matrix that matches BTG and our TxDOT counterparts with agreed-upon procedures for escalating issues with the goal to resolve them at the lowest practical level. In the unlikely event that a conflict becomes a formal dispute, we will resolve it following the Dispute Resolution Procedures outlined in the CDA.

(iv) Addressing Public Information and Communications for the Project

Commitment

BTG is committed to having direct and frequent communication with all customer groups and stakeholders, including the people who reside, work, and travel along the SH 288 corridor, local businesses, and representatives of affected jurisdictions, government agencies, and other transportation partners.

Our Public Information and Communications Plan (PICP) will inform and engage customer groups throughout the Project's duration. Proposed strategies are shown in the table below.

Customer	Strategies to Engage
Corridor Businesses	▪ Perform door-to-door outreach to businesses adjacent to or near the Project corridor ▪ Maintain access to businesses at all times with temporary business entrance signage ▪ Maintain communication channels with informational lunch sessions for major businesses, regular visits to individual businesses, and/or hosting corridor business group meetings

Customer	Strategies to Engage
Neighborhoods	▪ Hold meetings with representatives of neighborhoods near the corridor and inform TxDOT of meetings for attendance and participation; participate in Homeowners Association meetings, as needed
Partner Agencies, Emergency Services, and Law Enforcement	▪ Provide regular updates to senior executives at partnering transportation agencies, affected municipalities and counties, emergency services, and law enforcement agencies ▪ Engage with emergency services and law enforcement to ensure access for their vehicles
Elected Officials	▪ Conduct quarterly meetings with appropriate elected officials to provide information
Commuters	▪ Post closures and detour alerts regularly to the Project website and social media ▪ Use variable message boards and other traffic control tools ▪ Provide operational information including EZ Tag, TxTag, toll rates, and toll policies via e-mail blasts, newsletters, collateral material, traditional media, and on the Project website/social media

(v) Addressing Environmental Sensitivity and Safety

BTG's approach to environmental management includes a team of environmental specialists dedicated to ensuring that we meet all environmental requirements, obtain all necessary permits and are in compliance with all regulations. Our approach to environmental sensitivity, safety, compliance, and permitting includes:

- Supports design with guidance to avoid and minimize environmental impacts
- Meets ROW needs, with close coordination for due diligence/assessment, evaluation of environmental impairments, property environmental restrictions, Phase I-III investigations, Asbestos Containing Materials Abatements planning and implementation, and remedial actions
- Assures compliance with CWA Section 404 permits, cultural resource management, hazardous materials, and waste management (including pollution prevention and recycling plans)
- Provides construction monitoring and resource protection roles, including coordination of potential hazardous waste management and environmental health and safety needs related to the Sol Lynn Superfund Site contaminant plume located on the west edge of the IH 610 interchange
- Assures overall project environmental management systems are in place to track environmental approvals, issues, permits, plans, and to maintain documentation, including non-compliance events reporting, issue resolution, and identification of applicable risk management strategies to address or reduce probability of recurrence

(vi) Schematic, Innovative Concepts, and Approved ATCs

We have provided our Schematic in the required roll plot format in Appendix B, which includes the following:

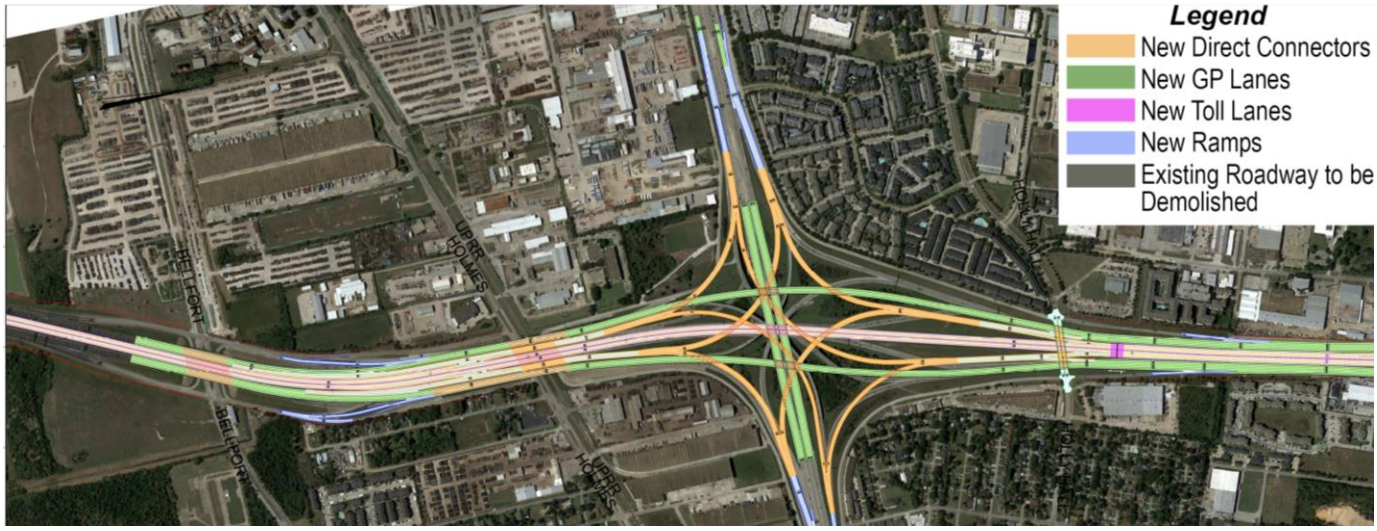
- **Schematic 1:** Roadway
- **Schematic 2:** Construction Sequencing/Traffic Management
- **Schematic 3:** Drainage
- **Schematic 4:** Bridges and Surface Structures
- **Schematic 5:** Tolling and ITS
- **Schematic 6:** Signing, Delineation, Pavement Markings, Signalization, and Lighting

Approved ATCs

ATC 5A (illustrated on the following page) provides TxDOT a safer and cost-effective design by placing the toll lanes at-grade. This best value for money solution has the following benefits:

- Eliminates fifth level flyovers at IH 610, which lowers maintenance costs, reduces safety risks for our workers and vehicular traffic, and minimizes impacts on adjacent properties
- Provides 75% of the IH 610 Interchange Work as part of this Project, resulting in significant future cost savings for completion of this work to achieve Ultimate Configuration
- Enhances connectivity to and from the toll lanes to the IH 610 General Purpose (GP) lanes, therefore increasing potential for toll revenue
- Maintains free ramps to and from IH 610 and SH 288

ATC 5D removes the northbound egress and southbound ingress to the Toll Lanes at Reed Road in order to streamline and simplify the Toll Lanes ingresses and egresses. The ATC also modifies the Toll Segment definition to accommodate both the removal of these ramps and also the Direct Connectors added at IH 610 in ATC 5A. The ATC simplifies operations and is expected to have a positive impact on toll revenues.



Innovative Concepts

- We explored opportunities to increase the design speed of the Toll Lanes with a multidisciplinary study. Our results showed the ability to increase the design speed from the minimum of 60 mph to 65 mph north of Belfort and 70 mph south of Belfort. This design change will be further refined during the final design phase in order to improve the traffic and functionality of the Toll Lane facility, resulting in potential for increased toll revenue.
- We realigned the ramps along the south right-of-way (ROW) line of IH 610 between Almeda and SH 288 to reduce the width of ROW required in this area from approximately 40 feet to 15 feet.
- We realigned the northbound and southbound SH 288 lanes in the area north and south of Brays Bayou to allow two storm water pump stations to remain in place. This not only results in significant cost savings, but will ease maintenance of the stations. We will provide an opening in the inside barrier of the toll lanes to allow a service vehicle to utilize the shoulder and enter the median area to maintain the pump stations.

(vii) Addressing ROW Acquisitions

Our approach to ROW acquisition is based on lessons learned from previous successful projects and includes:

- Defining the required ROW early
- Identifying parcels that are critical to the construction schedule and those that require long lead times
- Creating lines of communication by meeting with affected property owners prior to initiating negotiations
- Incorporating the ROW acquisition schedule into the overall project schedule
- Communicating continuously with TxDOT ROW staff and the Office of the Attorney General

Performance

Pinnacle Consulting Management Group, Inc., will provide the ROW Acquisition and Relocation Assistance services. Pinnacle has provided these services for TXDOT on numerous projects since 2000 and has 17 years of relevant experience. BTG's ROW Manager/ROW Acquisition Manager Donna Harrison has 24 years of experience and has led the acquisition of ROW on projects including SH 161, the North Tarrant Expressway, and the Dallas Area Rapid Transit.

Our approach will ideally include working with TxDOT to establish lines of communication with the impacted property owners prior to initiating negotiations. This will allow us to address misinformation, identify relocation or title issues, resolve potential design issues, and confirm/adjust the schedule.

(viii) Addressing Utility Adjustments

We focused our design efforts on identifying utilities and exploring opportunities to avoid or minimize impacts wherever possible to realize schedule and cost benefits. Examples include the following:

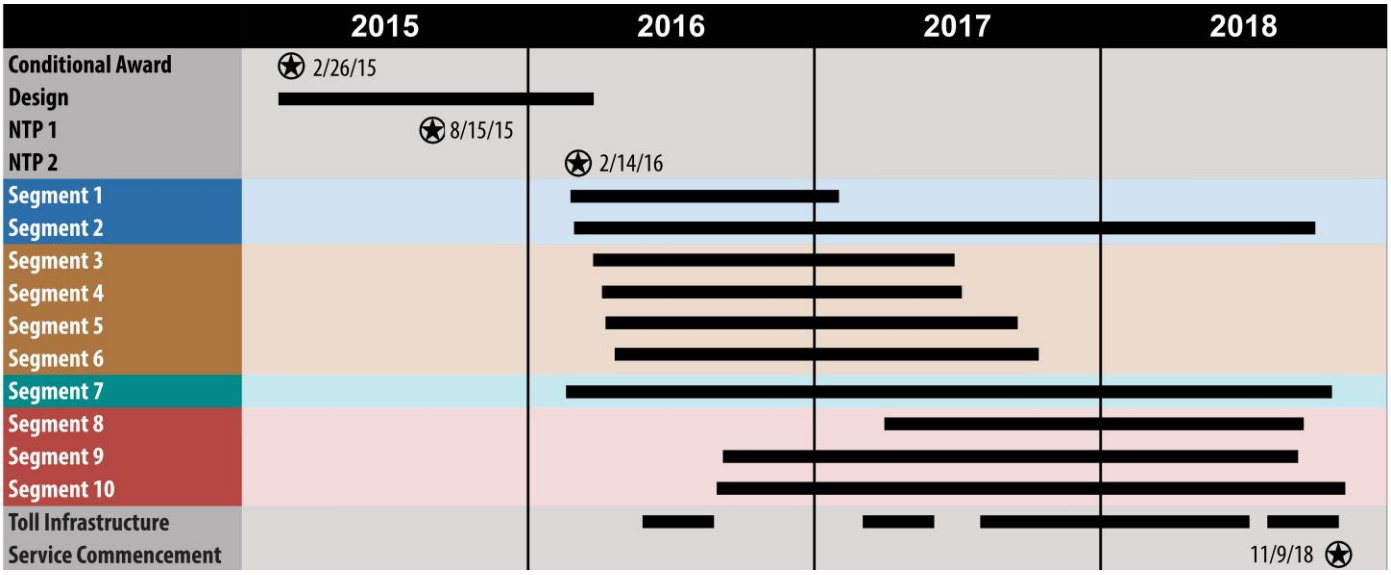
- We refined the alignment/locations of noise walls to resolve conflicts with the City of Houston Water and Sanitary
- Our phased approach to build the existing Holly Hall Road and Southmore Road Bridges one-half at a time eliminates temporary lines and minimizes replacement efforts for the existing City of Houston waterlines currently mounted to the bridges

- We refined the design of detention and drainage facilities to protect the required cover of several crossing utilities

BTG's Utility Manager John Schulte will lead our utility coordination efforts. We will utilize the successful strategies he implemented on other TxDOT CDA projects, including the DFW Connector Project, which received the 2014 "Excellence in Utilities Award" from the Federal Highway Administration.

(ix) Preliminary Baseline Schedule and Key Milestones

The figure below shows a summary of our plan for completing the work within 1,000 days from NTP2 until Service Commencement for all Project Segments per the Work Areas and Segments shown in subsection (x) below. The critical path is controlled by the work at both the IH 610 and BW 8 interchanges, where the main challenge is safely completing the construction according to our phased construction sequencing and traffic management plan while maintaining mobility of the traveling public. We will open the toll lanes and all direct connectors at the same time.

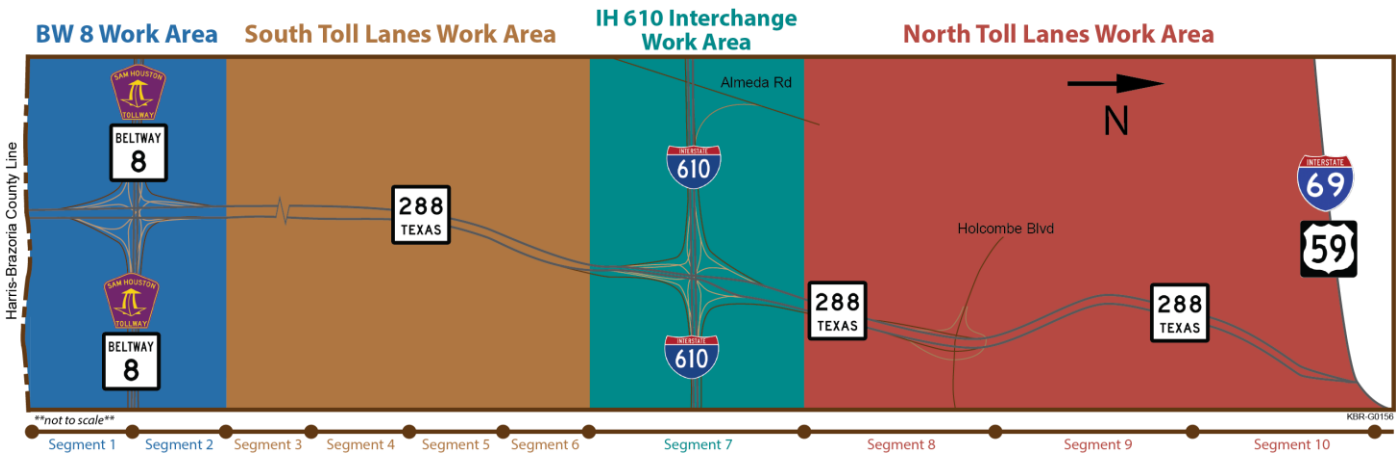


(x) Approach for Delivering the Design and Construction

Our approach to delivering the design and construction recognizes that integration of the various disciplines within the team, with TxDOT, and with major third parties is critical for advancing the design and safely delivering the Project on time, within budget, while meeting all of TxDOT's goals. Key elements of our approach include the following:

- Committing a full-time Design-Build Coordinator to lead the integration of the various Project disciplines
- Co-locating key staff from the design and construction teams at our Project office
- Segmenting the Project into work areas, and assigning separate but parallel design and construction management and staff to each one
- Optimizing the design deliverables to match early construction needs
- Using task forces to integrate our team and staff from TxDOT and major third parties, such as Brazoria County
- Holding weekly cross-discipline coordination meetings to ensure design consistency and capture innovations between various task forces
- Performing constructability, operability, and maintainability reviews before formal submittals
- Collaborating with TxDOT and major third parties through over the shoulder reviews and other integration strategies

To achieve enhanced oversight and resource efficiency, we organized the design and construction into four geographic work areas as shown in the graphic on the next page. Within the four work areas, we have corresponding roadway segments to facilitate management of construction resources and scheduling of work.



(xi) Construction Sequencing, Traffic Management and Mobility

Our approach to construction sequencing provides access to adjacent property owners, residences, and businesses and minimizes impacts to traffic. One example of this is our plan for sequencing construction of the Holly Hall and Southmore bridges in which we will demolish and reconstruct in two phases to provide continual mobility. This allows the flexibility to avoid the complete closure of the existing bridges to through traffic during reconstruction.

Our approach to traffic management is built upon a framework of maintaining mobility as much as possible during construction. Key benefits of our approach include:

- Reducing safety hazards and impacts to the public by providing buffers between traffic and the work zones
- Maintaining existing serviceability with the same number of lanes open during peak hours
- Including contractor access points along the entire Project to give our construction team easy access to the work zones and to allow for day-time construction

We will coordinate with each property owner/lessee during final design to understand how they access and use their properties. We will work closely with the Texas Medical Center, fire stations, police stations, and schools near the Project site to maintain emergency vehicle access and to provide advance notice of any temporary closures, night work, detours, or traffic switches.

(xii) Safety Program

BTG's safety program starts with the premise that safety is everyone's responsibility. Our construction and O&M supervisors, including foreman up to Senior Management, will define specific safety responsibilities for every employee on the Project. Supervisors will implement the Safety Program on a daily basis and develop guidelines to verify Project compliance.

We empower employees at all levels of our organization with stop work authority to report and prevent unsafe conditions. Our specific procedures include a formal system that involves the early communication of hazards to management to facilitate the appropriate analysis and early response to ensure the safety of the Project personnel and the general public. We will have an incident response plan and system in place for reporting and responding to all hazardous conditions. All employees and subcontractors will be trained on these procedures as part of their initial safety orientation.

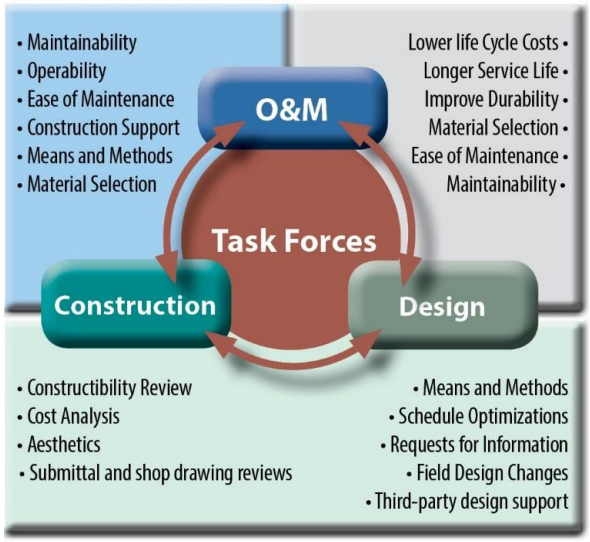
We have established the following safety goals for the Project:

- Achieve zero incidents
- Provide all employees with safety training and tools
- Continually monitor our safety performance and provide additional training to employees or make enhancements to our safety program to address any issues that may arise
- Re-evaluate goals periodically to focus on continual improvement towards the ultimate goal of zero incidents

> We will have a safety incentive program to reward employees for safety performance and those who actively implement the policies and procedures to achieve our safety goals.

(xiii) Approach to Operations, Maintenance and Renewal Work

Our approach to meeting the Operations, Maintenance and Renewal Work requirements has already begun. As P3 experts, we know it is essential for the O&M team to be engaged early in the design phase through the use of task forces in order to achieve a design that reflects the broader issues of constructability, maintainability, operability, and long-term reliability. This approach ensures that the Project can be maintained effectively over the long-term and will result in O&M efficiencies and significant cost savings over the life of the Project.



BTG's integrated Operations Management Plan (OMP) will detail items such as:

- Training and recruiting of operations staff
- Protocols for monitoring, inspecting, and patrolling the corridor
- Toll Lane Operations
- Procedures for incident and emergency response, and the handling of hazardous materials
- Coordination with TxDOT and communication with Houston TranStar Traffic Management Center

In addition to the OMP, BTG will prepare a complete Maintenance Management Plan (MMP) that will detail each activity to be performed over the life of the Project to extend asset life and maintain compliance with all Performance Requirements. BTG's proactive approach will stem from the results of its inspection program and baseline information provided by TxDOT, as well as the existing assets examination independently performed by BTG.

BTG has already developed strategies for Renewal Work and intends to continually monitor asset conditions and update useful life projections in order to project work needs and efficiently adjust Renewal plans as required in order to maintain compliance with Performance Requirements.

Performance

BTG has completed a rigorous examination of not only the new asset components developed from our design, but also existing assets in order to provide a solid basis for initial programming, costing, and development of strategies for Renewal Work. BTG engaged the services of specialty advisors Applied Research Associates, Inc. and Aguirre and Fields to assist in determining baseline condition and future deterioration of pavement and structures respectively.

(xiv) Approach to Toll Lane Tolling Operations

Tolling operations will start simultaneously in all Project segments as BTG's approach is to achieve Service Commencement for the entire Project at the same time. All classes of vehicles will be accepted in the Toll Lanes and are required to be equipped with a transponder unit for identification and toll charging purposes (with the exception of Exempt Vehicles). BTG personnel will monitor and review the processing of the information, which will be sent to TxDOT's back-office for toll collection.

BTG will work with public law enforcement agencies to ensure important elements, such as travel speeds, are enforced. If needed, enhanced patrolling services can be engaged to enforce tolls in the Toll Lanes.

BTG will support TxDOT's customer relations activities by providing information that will help TxDOT respond to customer inquiries such as, toll rate pricing information, vehicle passage data, traffic information regarding the Toll Lanes, general purpose lanes, and any traffic incidents.

Toll interoperability will be addressed in two ways: at the roadside level and at the back office level. At the roadside level, BTG's toll system will make use of multi-protocol readers and antennas that are able to process all transponder types required under the CDA. Interoperability at the back office level will be handled by TxDOT's back office, which will manage the interface with the external systems (e.g. HCTRA's back office). BTG will work closely with TxDOT to completely define the interface between BTG's toll collection system and TxDOT's back-office, including the requirements for information and format in conformance with the other interoperable agencies, in order for TxDOT to properly send the transactions to third party operators.