




1. EXECUTIVE SUMMARY

SH 288 Mobility Partners (SH288MP) is eager for the opportunity to improve mobility and connectivity in south Houston from Pearland and Brazoria County to downtown Houston. We will work in partnership with the Texas Department of Transportation (TxDOT) to develop, finance, design, construct, operate and maintain the SH 288 Toll Lanes Project in Harris County (the project).

A. ORGANIZATION AND PROPOSAL CONTENT

Our proposal is organized as requested in the instructions to proposers (ITP) and describes SH288MP's approach to safe, efficient and high-quality services. Organized into three sections, we address:

- ▶ **Project Management.** Organizational approach and processes that facilitate efficient project delivery including on-time completion, protection of the environment, safety of workers and the public, consistent and timely public communications, and a commitment to exceed the disadvantaged business enterprise (DBE) goal.
- ▶ **Design-Build Management and Technical Solutions.** A technical approach that delivers high-quality improvements including reduced environmental and construction impacts from alternative technical concepts (ATC), and traffic planning that maintains mobility within the corridor while minimizing construction impacts.
- ▶ **Operations and Maintenance (O&M) Technical Solutions.** An approach that provides consistently reliable toll lanes to attract users.

 Throughout the proposal, we identify features and benefits that add value to the project for TxDOT, the local community, the project's stakeholders, and/or the traveling public — these are identified with this symbol: . Similarly, we emphasize items that exceed the requirements with this symbol: . This executive summary highlights a few of these features in "Added Value Solution" graphics, like the one at the bottom of this page.

B. CHANGES TO STATEMENT OF QUALIFICATIONS

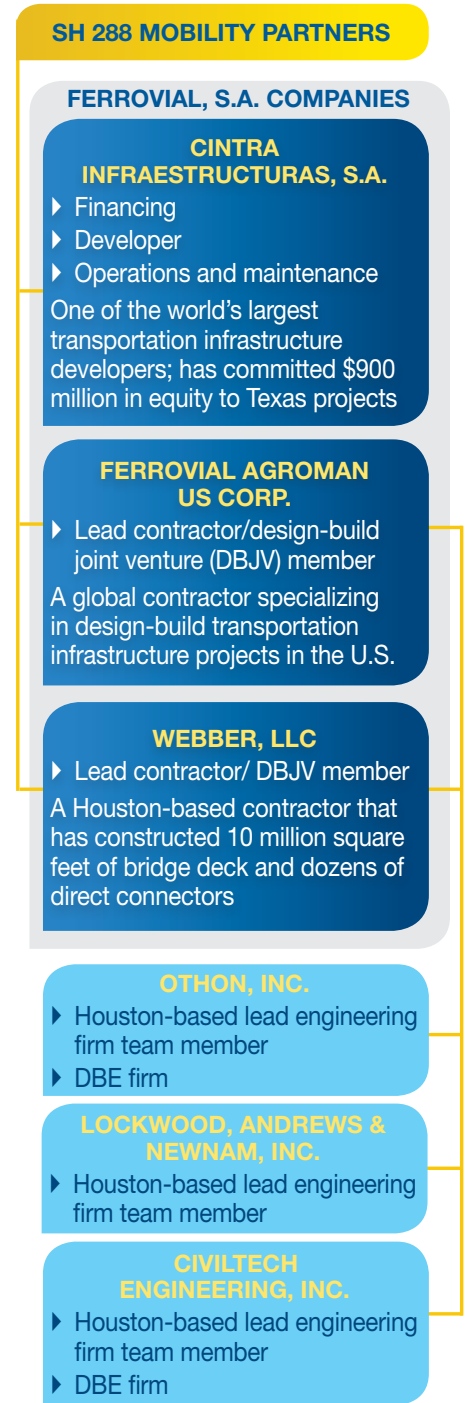
Except for the key personnel identified in Section C below, we have no changes to our statement of qualifications submittal.

C. MAJOR PARTICIPANTS, ORGANIZATION CHANGES


SH 288 Mobility Partners

Specifically formed for this project, SH288MP's core is a partnership of Texas firms from the same family of companies and an engineering team based in Houston that includes DBE firms. SH288MP, including the equity member, is unchanged from our qualifications submittal. Figure ES-1 identifies the team.

Figure ES-1: Our Team



ADDED VALUE SOLUTION

<p>Family of Companies Reduces Risk and Lowers Cost</p>	<p>Benefits to TxDOT of our team's corporate structure — a single, common corporate parent — include:</p> <ul style="list-style-type: none"> ▶ Minimized risks and potential for disputes between consortium members ▶ Aligned interests of all firms, rolling up to a single point of accountability for all services ▶ Increased collaboration throughout the project life cycle with sustainability, continuous improvement and long-term costs taking priority over short-term decisions 	<p>ORGANIZATION</p>
<p>Qualified Staff </p>	<p>Our key personnel and supporting managers exceed many of the minimum requirements.</p>	

Key Personnel

Changes to our organization since the qualifications submittal include the following new key personnel as approved by TxDOT:

- ▶ **Luis Munoz** – superintendent (proposed as design-build construction manager in the statement of qualifications), to replace Mario Mostoles
- ▶ **Robert Hinkle** – public information coordinator, to fulfill the new key personnel position identified in the ITP requirements
- ▶ **Segundo de los Heros** – financial manager, to fulfill the new key personnel position identified in the ITP requirements

Commitment to Provide Key Personnel

Each major participant of SH288MP commits to providing the key personnel identified in this proposal. Please see letters behind the *Key Personnel Statement of Availability* tab in this binder.

D. PROJECT DEVELOPMENT PLAN OVERVIEW

Our approach for the SH 288 Toll Lanes Project is based on our successful operations throughout Texas and North America.

Management and Decision Making

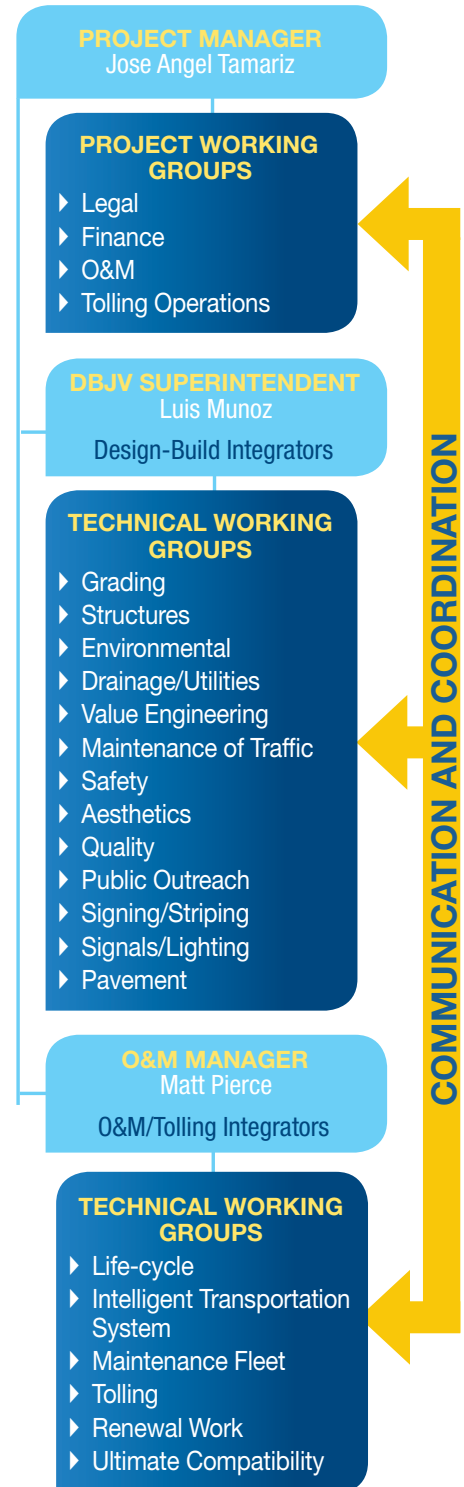
Continuity across project phases is a key feature of our team and it starts at the top. Jose Angel Tamariz will serve as our project manager starting at NTP1 and through the O&M period. He will be supported by a management team that balances the integration of design, construction and O&M to promote quality, innovation, efficiency and long-term life-cycle benefits.

A hierarchy of working groups supported our team during the procurement phase, and we use this structure for project delivery. Figure ES-2 illustrates the project and technical working groups and the interaction between them. We encourage and anticipate TxDOT and third parties to participate in technical working groups with us.

Key features of our team’s integrated organizational structure that will facilitate project success include:

- ▶ **Design-build Integrators** – cross-trained designers and constructors skilled at maximizing the benefits of design-build project delivery
- ▶ **O&M/Tolling Integrators** – O&M technical experts serve as integrators of O&M information across all concessions allowing us to quickly solve problems, identify trends and incorporate best practices
- ▶ **Staff Continuity Through Phases** – teams and staff (O&M manager, safety manager, quality manager, environmental compliance manager, public information coordinator, maintenance crew and field patrollers) serve during both the construction and O&M phases, facilitating a seamless transition
- ▶ **Capturing Best Practices** – O&M integrators and a quality organization that brings best practices from other toll lane projects in Texas, throughout the U.S. and worldwide
- ▶ **Culture of Safety and Security** – driven by our zero-accident goal and our continuous improvement processes
- ▶ **Clear Communication Lines** – to facilitate optimal delivery of technical solutions, offering TxDOT the lowest possible life-cycle costs and efficient project delivery

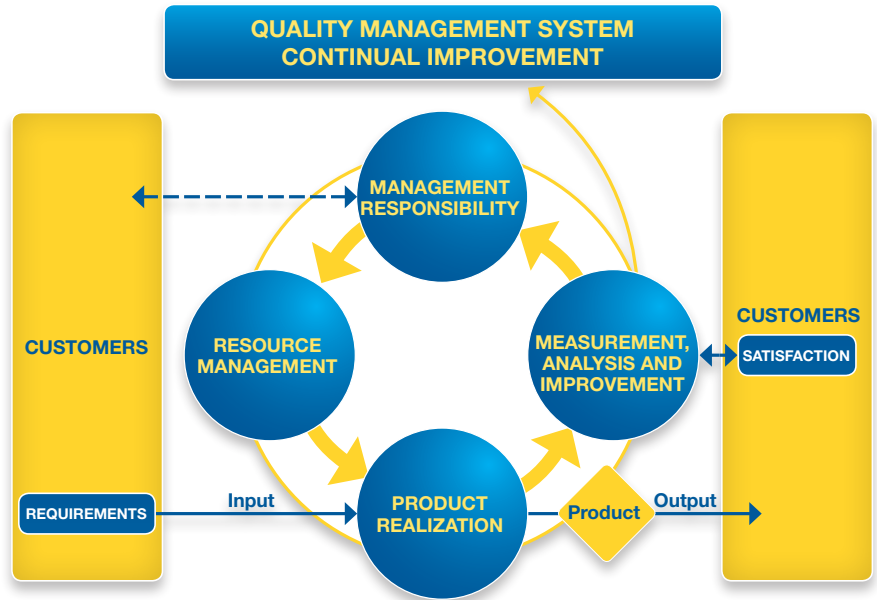
Figure ES-2: Project Working Groups and Technical Working Groups



Quality Management

A differentiating factor for our team, our quality program fully integrates design management, construction and O&M responsibilities, and all are performed by subsidiaries of one company. We use proven techniques for carrying out work, complying with project requirements and achieving continuous improvement (Figure ES-3). Most importantly, we integrate our quality and environmental management programs to establish and maintain a consistent approach to safeguarding the environment and meeting the environmental commitments.

Figure ES-3: Continual Improvement Process



ADDED VALUE SOLUTION



Quality and the Environment	Our quality process for implementing and maintaining erosion control best management practices calls for starting with sensitive areas and working towards less sensitive areas. This approach allows for the more sensitive areas to be maintained first and, in periods of significant rain, more often.	QUALITY
ISO-Certifications	Our operations for the Chicago Skyway, 407 Express Toll Route and 407 East Extension Phase 1 have achieved ISO 9001 certification. The North Tarrant Express Segments 1 and 2 and the IH 635 (LBJ Express) Managed Lanes are also in the process of getting ISO 9001 certified. We will use these same quality processes for the SH 288 Toll Lanes.	

Working with TxDOT and Third Parties

Our priority is to establish proactive, timely communication with TxDOT and all stakeholders. Project Manager Jose Angel Tamariz will be TxDOT's single point of contact. Jose Angel, Superintendent Luis Munoz or O&M Manager Matt Pierce will make initial contact with their counterparts at TxDOT and other third parties (providing senior-level contact for future issue escalation) while the day-to-day interface will be handled by the team. For example:

- ▶ **Utilities.** Our utility coordinators will establish relationships with every impacted utility and serve as their single point of contact with the team.
- ▶ **Counties and Cities.** Our public relations coordinator will be our point of contact for public officials, and we will appoint representatives to serve as the point of contact for the public works and engineering departments.
- ▶ **Emergency Responders.** Our safety manager will work with local first responders for all fire and life safety issues and drills.

We welcome and anticipate TxDOT and third-party participation in our technical working groups. We will establish a formal partnering program including a facilitated kick-off session and regular follow-up sessions to supplement the daily interactions and routine progress meetings. Our objective is to foster a developer/owner/stakeholder relationship of a single team based on trust and open communication so that there are no surprises.

Proven Teamwork

Your SH288MP core team — Cintra, and Ferrovial Agroman — have collaborated on 25 successful design-build-finance-operate-maintain projects totaling \$10 billion, for 1,200 miles of highway with no schedule delays and no contract cost overruns. The firms are currently teamed on 120 miles of highway work worth \$7 billion. We know how to successfully implement projects — together!

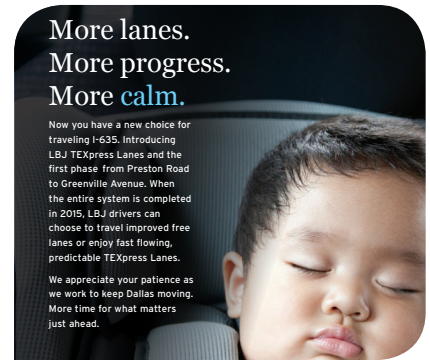
Public Information and Communication

Based on the successful programs we implemented for the IH 635 (LBJ Express) Managed Lanes and North Tarrant Express projects, our public information and communications program will provide proactive, effective outreach. Led by Texas transportation project public relations expert Robert Hinkle, our team will work in collaboration with TxDOT to develop a comprehensive public information and communication plan that informs, educates and engages.

We will link our communications and traffic management teams. Working together, these teams enhance safety by helping the traveling public understand where and when to expect road and lane closures, and how to navigate around them. We will also conduct listening sessions (to understand concerns), develop a crisis communication plan and establish a public information office.

Environmental Sensitivity



Led by Environmental Compliance Manager Derek Ivie (who recently served as an environmental specialist on the North Tarrant Express Segments 1 and 2), our team’s approach for protecting the environment prioritizes impact avoidance and minimizes last-resort mitigation measures. Our comprehensive environmental protection program will ensure compliance with environmental and cultural resource permits, laws and regulations. During design, our environmental team will help mitigate potential environmental impacts by designing around protected areas whenever possible. They will also play a key role in the NEPA re-evaluation for ATC 1 and ATC 2 (completed at our own risk, prior to NTP1), and will help balance transportation needs with environmental sensitivity as new issues emerge.



The IH 635 (LBJ Express) Managed Lanes “More Lanes. More Progress. More Calm.” award-winning campaign enabled us to educate the public on using the TExpress lanes. (In 2012, PR Daily recognized the team with their Corporate Social Responsibility award for best stakeholder engagement.)

ADDED VALUE SOLUTION



Customer Outreach	We will deliver proactive and informational campaigns to help users understand how to use the toll lanes. On the IH 635 (LBJ Express) Managed Lanes we created the “More Lanes. More Progress. More Calm.” campaign.	OUTREACH
Social Media	To supplement print media, we will use mobile phone applications, Twitter, Facebook and other social media to inform customers about roadway closures, weather and traffic.	
Exceeding DBE Goal 	We commit to exceeding the DBE goal of 12 percent and to subcontracting with DBE firms during the O&M period.	
Environmental and Quality Integration	Our environmental team actively assists with the refinement of the alignment. During design, they expedite permitting and help mitigate potential environmental impacts by designing around protected areas where possible.	ENVIRONMENTAL
Sustainable Construction	By maximizing the use of recycled Type D pavement material, we will deliver a more environmentally friendly project while also reducing cost.	
At Risk Environmental Re-evaluations 	We will eliminate any potential impact to schedule from the environmental re-evaluations required for ATC 1 and ATC 2 by performing the work (at our own risk) prior to NTP1.	
Proactive Stormwater Protection	To prevent stormwater pollution, we will monitor the weather forecast closely before concrete pours and chemical curing activities, and will have planned mitigation measures established 24 to 48 hours before the start of a forecasted rain event.	
Reduced Material Quantities	By reducing material quantities through ATC 8, we reduce truck traffic which minimizes traffic impacts and improves safety while also reducing air quality and noise impacts.	



V+ Innovative Concepts and Approved Alternative Technical Concepts

Our team has spent considerable effort analyzing the design for this project and developing value-added features that benefit TxDOT and users. Figure ES-6 on the next page highlights our team’s key innovations and solutions to technical challenges, and depicts our approach for segmenting the project for construction. The ATCs incorporated into our design include:

- ▶ **ATC 1** – keeps the toll lanes at ground level on the existing general purpose (GP) lanes and constructs new pavement for the GP lanes under IH 610, eliminates construction of the two 1.7-mile, fifth-level structures extending from south of Bellfort Street to north of Holly Hall Street (Figure ES-4)
- ▶ **ATC 2** – connects the existing IH 610 eastbound GP lanes to the northbound SH 288 toll lanes and the southbound SH 288 toll lanes to the existing IH 610 westbound GP lanes (Figure ES-5)
- ▶ **ATC 8** – in conjunction with subgrade lime treatment, adapted the soil column to be analyzed for the purpose of addressing potential vertical rise for new pavement to 10 feet

Figure ES-4: IH 610/SH 288 Interchange



V+ Eliminating the fifth-level structure (per ATC 1) greatly reduces visual and noise impacts to adjacent communities and reduces construction risk.

Figure ES-5: ATC 2 Adds Connectivity



Legend for Figure ES-5:
 ■ Existing GP lanes converted to new toll lanes (ATC 1)
 ■ New GP lanes (ATC 1)
 ■ Two new direct connectors between the SH 288 toll lanes and IH 610 (ATC 2)

ADDED VALUE SOLUTION



<p>ATC 1</p>	<p>By eliminating two fifth-level structures and keeping the toll lanes at ground level, ATC 1 provides:</p> <ul style="list-style-type: none"> ▶ More efficient construction ▶ Substantial cost savings ▶ Greater safety during construction ▶ Reduced noise and visual impacts ▶ Reduced construction risk <p>It also increases safety and reduces cost and traffic impacts during TxDOT’s future construction of the Ultimate Configuration.</p>	ATCS
<p>ATC 2</p>	<p>ATC 2 will provide direct connectors between the SH 288 toll lanes and IH 610, increasing connectivity and traveler flexibility at no additional cost to TxDOT.</p>	
<p>ATC 8</p>	<p>By adapting design procedures for potential vertical rise to local climate and soil conditions, ATC 8 reduced the amount of material required for the project, saving cost, accelerating the schedule and minimizing environmental impacts by.</p>	

Figure ES-6: Project Map



Our design includes numerous features that add value for TxDOT, the local community, the project's stakeholders and/or the traveling public.

EXCEEDS REQUIREMENTS

- A Improved Connectivity (ATC 2)**
ATC 2's additional connectivity provides TxDOT with additional scope at no additional cost. It also provides additional travel options for toll lane users.
- B Increased Pump Station Capacity**
Diverting water that currently falls in the median just north and south of Brays Bayou to an independent drainage system increases the capacity of existing pump stations.
- C Underground Structures Analysis**
Additional analysis of the structural adequacy of the existing pump station underground structures at Brays Bayou has resulted in mitigated risk and retention of these structures for continued use.
- D Ultimate Configuration Features**
We are providing Ultimate Configuration elements by including ramps at Almeda-Genoa Road, both from the toll lanes to the GP lanes and from the GP lanes to the toll lanes.
- Optimized Minimum Grade**
We exceed TxDOT's 0.25 percent minimum slope requirement by providing 0.35 percent for all new toll lanes and new GP lanes resulting in improved drainage and user safety.
- Extended Subgrade Stabilization**
Extending the subgrade stabilization beyond the GP and toll lane shoulders enhances the quality and service life of the pavement.
- Enhanced Structure Condition Rating**
At the end of construction, all existing superstructure, deck and substructure structures will have a condition rating of 7 (rather than the required rating of 6), providing a superior product and increasing safety for users.
- Additional Borings**
We performed additional borings more than 100 feet in depth for bridges and retaining walls, enabling our team to properly analyze foundation options and provide cost-effective solutions.

LEGEND

— SEGMENT 1	— SEGMENT 3
— SEGMENT 2	— SEGMENT 4
● NEW SH 288 STRUCTURE	
◆ NEW STRUCTURE OVER SH 288	
⬡ NEW IH 610 STRUCTURE	
■ NEW DIRECT CONNECTOR STRUCTURE	
▲ REHABILITATED STRUCTURE	

IMPROVEMENTS

- D Improved Beltway 8 Toll Lane Alignment**
We avoid conflicts with existing and new columns by separating the toll lanes (and modifying their horizontal alignment) under Beltway 8.
- E Enhanced Vertical Clearance – Over Roadways**
We provide additional vertical clearance over Blodgett Street, Wheeler Avenue and Cleburne Street by constructing a separate structure for the northbound toll lane rather than widening the existing structure. (See Figure 2-3 on page 39)
- F Enhanced Vertical Clearance – Waterways**
We raised the profile over Clear Creek and Sims Bayou reducing impacts on the waterways and reducing the potential for flooding for improved safety.
- G Resolved Stopping Sight Distance Deficiencies**
There are several locations where we improved curve radii and/or widened the shoulder to meet stopping sight distance requirements for improved driver safety.
- H Replacing Existing Retaining Walls**
We will replace four existing retaining walls with new mechanically stabilized earth retaining walls to provide a safer and more durable retaining wall configuration.
- I Holly Hall Street Reconstruction**
By reconstructing the Holly Hall Street structure over SH 288 (rather than replacing it) and retrofitting the existing bents, we will significantly reduce traffic impacts and cost, and extend the service life of the structure.
- Reduced Maintenance Costs**
By providing superpave for the GP lanes, we have reduced future maintenance cost.
- Improved Existing Drainage Systems**
Our drainage system reduces the amount of area drained by the existing systems providing an overall improvement to the performance of the existing drainage systems.
- Featuring Local Artists**
We will feature the work of local artists as part of the facility's permanent aesthetic elements at locations such as interchanges and waterways.
- Landscape Enhancements**
Design strategies, such as using one color of flowered shrub at highway entrances and another color at exits, will create a sense of arrival and departure at intersections. We will also incorporate the Wave concept for median concrete traffic barriers and existing rip-rap, and we will increase forested areas while reducing lawn surface in main interchanges. These improvements provide aesthetic and environmental enhancements while also reducing future maintenance.

OPTIMIZATIONS

- J Enhanced Toll Lane Solution at IH 610 (ATC 1)**
Our team's approved ATC 1 takes the toll lanes under (rather than over) IH 610, eliminating the fifth-level structure and resulting in significant cost and schedule improvements and enhanced safety. Other benefits of this approach include reduced visual and noise impacts to the surrounding community and improved compatibility with the SH 288/IH 610 Interchange Ultimate Configuration. (See Section 2.2.1 – Roadway for additional details)
- K Texas Medical Center Direct Connector Improvements**
We optimized the structure span lengths to avoid the need for steel beams. In addition to significant cost advantages, this has resulted in accelerated construction and reduced lane closures. Other improvements include:
 - Solving a cross slope elevation problem to enable the superelevation transition length between curves to meet the design requirements
 - Preserving a critical access driveway (Plaza Drive) for the adjacent grocery supply facility
 - Going under (rather than over) Yellowstone Boulevard, eliminating noise and aesthetic impacts associated with a third-level structure while also reducing cost, accelerating the schedule and minimizing GP lane closures during construction
- L Beltway 8 Direct Connectors**
We shortened the bridge lengths and optimized the crossing point to avoid the need for steel beams enabling us to significantly reduce cost (both during construction and for future maintenance). We also:
 - Optimized the direct connectors on the east side of the interchange by optimizing the Harris County Toll Road Authority ramps
 - Optimized direct connector width by moving the eastbound merge and the westbound split closer to SH 288, while maintaining the necessary access and design criteria
 - Used post-tensioned straddle bents, regular straddle bents and single-column bents to eliminate the need for steel girder super structures, saving cost and time
- Balanced Earthwork**
We balanced the earthwork by optimizing vertical allowable K values and grade profiles. In addition to reducing cost, reducing embankment and excavation — and re-using existing material — is environmentally friendly. Our connection to the Southern Crushed Concrete recycling facility in Houston results in additional environment benefits.
- Independent Stormwater Drainage System**
Our stormwater drainage system is generally designed to operate independently of the existing drainage system, greatly minimizing the risk of disruption or interference with drainage of the existing roadways during construction.
- ATC 8**
We optimized the pavement structures through approved ATC 8, saving cost, accelerating the schedule and minimizing environmental impacts by reducing the amount of material needed throughout the project.

Right-of-way Acquisitions Approach

Understanding that property acquisition is often a difficult time for business property owners, our right-of-way professionals are experts at understanding their concerns and developing constructive relationships focused on issue resolution. Our right-of-way, design and construction teams have collaborated on design and construction solutions for the four parcels (and partial fifth parcel) near the Texas Medical Center that support property owners while meeting the needs of the project. Figure ES-7 provides an example of a solution that avoids the driveway encroachment for Grocers Supply and helps keep them operational.

Utility Adjustments Approach

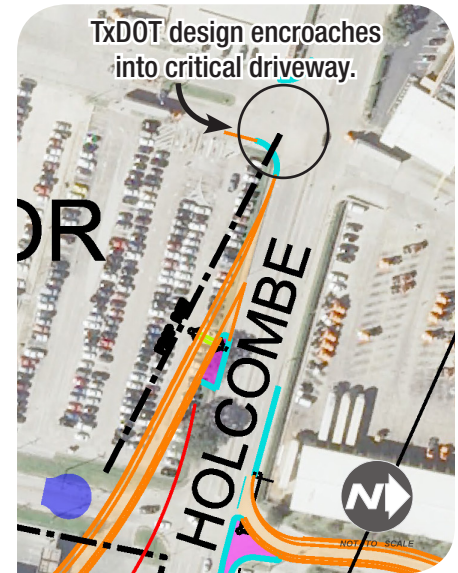
Led by Utility Manager Alfonso Diaz del Rio, our team has performed extensive preliminary investigations and research to quantify utility impacts, and developed accurate cost estimates that reduce the need for contingency budgets. We have collected the data in our Utility Inventory Matrix which will be further expanded upon award when additional investigations are performed.

Schedule

Provided in *Section D – Appendices*, our preliminary baseline schedule (PBS-1) includes the following milestones:

- ▶ NTP1 – 18-Aug-15
- ▶ NTP2 – 14-Feb-16
- ▶ Design Completion – 21-Jun-16
- ▶ Construction Start – 14-Feb-16
- ▶ Substantial Completion – 10-Nov-18
- ▶ Completion of all Toll Segments – 10-Nov-18
- ▶ Final Completion – 8-Feb-19

Figure ES-7: Right-of-way Solution



Our design completes the direct connector on the east side of the driveway with no encroachment into the driveway (Plaza Drive).



ADDED VALUE SOLUTION



Streamlined Acquisition Process	Our right-of-way acquisition group is a fully integrated member of our team. By working closely with design and construction, they will develop a complete understanding of the project and the manner in which it will be constructed. This results in a streamlined acquisition process and also enables them to be far more effective as they collaborate with property owners.	RIGHT-OF-WAY
Preserving Business Access	Our right-of-way, design and construction teams worked closely together to develop a solution that preserves a critical access driveway for the grocery supply facility adjacent to the Texas Medical Center southbound direct connector. (Figure ES-7)	
Prioritizing Critical Parcels	Our right-of-way acquisition database has enabled us to identify critical parcels and prioritize acquisitions appropriately.	
Utility Coordination is Critical	Utility impacts can have a significant impact on schedule and cost. We will implement proven strategies such as assigning dedicated utility staff members to serve as single points of contact with utility owners. Our utility adjustment team will provide proactive coordination that involves understanding the needs of the utility owner and communicating regularly regarding schedule, the status of relocations and the overall project plans.	UTILITIES
Robust Preliminary Schedule	Although a typical preliminary schedule would have approximately 200 activities, our more than 200-page schedule included in <i>Section D – Appendices</i> is robust with more than 8,000 activities. To develop our schedule, a multi-discipline team of design and construction professionals worked with our in-house scheduling experts to correctly identify the activities, sequencing and duration. After identifying the initial critical path and overall project duration, the team evaluated many options and calculated the impact of “what if” scenarios to develop the most efficient critical path, allowing us to provide for safe traffic control plans and execution of the work.	SCHEDULE

Approach for Delivering Design and Construction Elements

Our design management approach is unique and a differentiator for our team. Design Manager Ignacio Navarro, PE, is employed by our design-build joint venture (DBJV) team member Ferrovial Agroman, and is tasked with overall management of both the design process and our design team. This, along with assigning each design firm specific segments, promotes consistency from the multiple engineering firms that make up our lead designer and facilitates participation of our design-build integrators who are also Ferrovial Agroman employees.

Our construction approach includes dividing the project into four segments (Figure ES-6 on page 6) and begins with utility work throughout the corridor. In Segment 1, we will start work on the GP lanes, the direct connectors to Beltway 8 and the structures. Segment 2 will begin with structures work. In Segment 3, we will start with the SH 288/IH 610 Interchange bridges while also relocating the existing direct connector columns. We will then move the GP lanes to their new alignment. In Segment 4, we will complete the drainage and structures work first. All segments end with construction of the toll lanes.

Construction Sequencing, Traffic Management and Mobility

For the majority of SH 288, work occurs in the existing median with no traffic shifts for the GP lanes. When we do need to manage traffic, we will balance efficient work zone constructability with worker and traveling public safety, and minimize inconvenience to the public while maximizing construction limits. Features of our traffic management plan include:

- ▶ Keeping existing number of through lanes on SH 288, Beltway 8 and IH 610 operational throughout construction
- ▶ Limiting GP lane traffic shifts for improved safety and continuity
- ▶ Minimizing impacts to local businesses, the communities and adjacent property owners by working exclusively within the existing right-of-way whenever possible
- ▶ Minimizing the need for temporary pavement and re-purposing existing pavement whenever possible
- ▶ Maximizing on- and off-ramp access throughout construction
- ▶ Limiting GP lane traffic shifts for improved safety and continuity



Like the SH 288 Toll Lanes Project, North Tarrant Express Segments 1 and 2 has included extensive work in the median. Our team safely executed the work while minimizing traffic impacts in this dense urban environment.

ADDED VALUE SOLUTION

Local Design Team	Our team’s designers will work from their local Houston area offices.	DESIGN AND CONSTRUCTION
Design-build Integrators	Our team’s unique approach to design-build projects includes assigning design-build integrators who work daily with our design and construction teams and leverage their previous experience to maximize the benefits of design-build project delivery.	
Construction and O&M Team Integration	Unlike other teams, our O&M staff begins operating and maintaining the facility during construction. They work side-by-side with our construction team, participating in project meetings, coordination meetings and supporting overall project safety.	
Ready to Hit the Ground Running	Our team’s extensive geotechnical analysis work has resulted in developing geotechnical designs that are nearly 50 percent complete, accelerating our design schedule.	
A Partnered Approach to Traffic Management	A key element of our traffic management approach will be weekly technical working group meetings including TxDOT, agency representatives, emergency service providers, city traffic personnel and our personnel as well as public involvement and community relations team representatives.	CONSTRUCTION AND TRAFFIC
Advanced Traffic Management Details	The development of our team’s construction phasing plans is an area where we have gone beyond the minimum requirements. In addition to the requested construction phasing plans, our schematics provide details on anticipated traffic management at every station along the project.	

Exceeds Requirements



Safety Program

Providing continuity across project phases, our safety program for design, construction and O&M will be led by Rod Corpus who brings current experience from the Central Texas Regional Mobility Authority. Our program's goal is zero accidents, zero fatalities and zero delays through effective prevention. Tailored to this project, our plan considers the high traffic volumes in the corridor, especially near the Texas Medical Center, and special elements of the work (such as crane and trenching safety), access locations for staff and equipment, and performing construction under live traffic. We will fully detail all policies, plans, work site controls and incident response plans to ensure the health and safety of both the general public and our workers during both the construction and O&M periods.





Operations, Maintenance, Renewal Work and Handback

Our objective is to entice drivers to pay to leave the congested GP lanes to use the safe, reliable and faster alternative of the toll lanes. Our approach to O&M aligns with TxDOT's interests and delivers efficiently maintained, safe and reliable transportation assets that meet the handback requirements. Our approach includes:

- ▶ **Best Practices** – self-performing the work and applying best practices and experience gained from similar TxDOT O&M contracts to minimize both learning curves and costs
- ▶ **Transparency** – establishing optimal communication with TxDOT
- ▶ **Contingency Planning** – managing risks, creating contingency plans and training resulting in rapid response to unexpected operational situations
- ▶ **Cradle-to-Grave Mindset** – integrating design, construction and O&M to design assets based on life-cycle considerations
- ▶ **Cutting Edge Technology** – tailoring our proprietary cost management and asset management systems for the unique aspects of the SH 288 toll lanes
- ▶ **Local Jobs** – hiring locally and subcontracting to local firms including DBE and specialty firms

ADDED VALUE SOLUTION



We've Started the SH 288 Plan	Our safety and health plan is based on our team's TxDOT-approved plans including, North Tarrant Express Segments 1 and 2, North Tarrant Express Segments 35W/3A and 3B and IH 635 (LBJ Express) Managed Lanes.	SAFETY
Zero-tolerance Policy	Supervisors will sign our zero-tolerance policy to show their commitment to safety.	
Self-performed O&M 	Self-performing O&M lowers operator risks and contingencies, lower costs to TxDOT, streamlines operations with fewer interfaces, aligns developer and O&M team interests, and provides seamless transition from construction to the O&M period.	O&M
O&M/Tolling Integrators 	O&M specialists in Cintra's Austin-based U.S. headquarters facilitate operations, maintenance and life-cycle best practices across concessions.	
Continuity Staff 	Our core O&M team will start with maintenance upon NTP2 and will transition into the O&M period, minimizing learning curves.	
Life-cycle Designs	During design, our O&M team provides input to and management of life-cycle costs.	
Traffic Management During Maintenance and Renewal Work	During construction of the IH 635 (LBJ Express) Managed Lanes project, we performed more than 11,000 maintenance of traffic closures. The approach used in construction is directly transferable for maintenance and rehabilitation work.	
Innovative, Proprietary Systems 	Our state-of-the-art technologies, such as our maintenance online management system and proprietary Toll Highway Operating & Reporting System, allow an approach to long-term maintenance and renewal work that maximizes asset useful life, delivering the best value for the money while complying with (and mostly exceeding) performance requirements.	

 *Exceeds Requirements*



Tolling

We have taken a long-term approach to tolling and ITS design, integration and implementation. The tolling conceptual design, provided as Figure 2-16 in Section 2 shows the schematic plan including tolling points, informational signing and toll zones. The ITS and tolling system will conform to the Houston-Galveston Regional ITS Architecture. It will be ready for dynamic tolling and video tolling from day one. Timely toll and traffic information will be provided to motorists through Houston TranStar, Texas 511, dynamic message signing and the SH 288 website.

Electronic Toll Collection System

Best in class, already proven and a step ahead of the competition, our electronic toll collection system (ETCS) reliably delivers extremely high performance. Our roadside equipment, intelligent transportation system and back office system, with their state-of-the-art subsystems, automatically record, process and audit toll transactions; manage variable and dynamic toll rate setting; provide real-time monitoring, failure detection and automatic generation of repair tickets; and video-capture license plate information to support collection from violators.

Toll Rates

Toll rates will use a time-of-day schedule, with variable toll rates on tolling segments 1, 2 and 3, and fixed toll rates on the Beltway 8 direct connectors (segments 4, 5, 6 and 7). Our proprietary toll setting module is also capable of dynamic tolling using systems proven on our recently opened North Tarrant Express Segments 1 and 2 and the IH 635 (LBJ Express) Managed Lanes.

Customer Relations

Field patrollers, available 24/7, will provide roadside assistance, helping stranded motorists with gas, changing flats, clearing debris and assisting with incidents and emergencies. A 24/7 telephone hotline will dispatch equipment and response personnel, providing users a comfortable way to solicit help. Public Information Coordinator Robert Hinkle will serve as the primary point of contact and clearinghouse for receipt of and response to all complaints. He will also serve as our media contact.

ETCS Implementation and Dynamic Tolling Experience



We are the only private sector operator in the State of Texas with experience successfully commissioning ETCS for dynamic tolling — on North Tarrant Express Segments 1 and 2 and open segments of the IH 635 (LBJ Express) Managed Lanes. The toll setting module interfaces with more than 100 toll rate dynamic message signs, receives information from more than 350 different roadway sensors and can make as many as 288 rate changes in a day — all with a required system uptime of 99.749 percent. The system performs one rate evaluation per minute for a total of 1,440 rate evaluations per day. We bring lessons learned and best practices to SH 288.

ADDED VALUE SOLUTION



Toll System Design, Implementation and Operation Experience	Our ability to implement ITS and toll systems that build on existing TxDOT infrastructure has been demonstrated on our other successful TxDOT projects — North Tarrant Express Segments 1, 2 and 35W/3A, IH 610 (LBJ Express) Managed Lanes and SH 130 Segments 5 and 6.	TOLLING
Existing Procedures Provide a Head Start	Existing procedures from our toll concessions operated in Texas and worldwide will be used as templates for the SH 288 procedures. For the ETCS alone, we have 287 procedures.	
Custom ETCS	A customized, modular system for SH 288 eliminates the adaptation of a system piled with software patches, reduces systems operations and upgrade risks, and provides a fully customizable back office system with the ability for each transaction processing module to be segmented and modified.	
Direct Tie-in to First Responders	We will establish a direct connection of our incident response system to and from the systems of local first responders, shortening the notification time between organizations.	

SH 288 Mobility Partners — TxDOT's choice for improving mobility and connectivity along the SH 288 corridor.