A. Proposal Contents and Organization

This document includes all information required in the Instructions to Proposers and is organized according to Exhibit E, as follows:

Technical Proposal Revision

- (A) Executive Summary
- (B) Proposer Information, Certifications & Documents
- (C) Project Development Plan
- (D) Appendices

Financial Proposal Revision

Price Proposal Revision

EXECUTIVE SUMMARY

BUILDING ON TXDOT'S INNOVATIONS

- ★ *Assign coordinators to engage more than 50 third-party stakeholders*
- ★ *Co-locate an experienced ROW team with TxDOT, structured to effectively acquire 315 parcels*
- ★ *Optimize the alignment to eliminate 126 utility relocations and provide an experienced utility team to resolve the remaining 225*
- ★ *Finish Blocks 1 and 2 in Segment H-1 over 12 months early and Blocks 10 and 11 in Segment I-2 over 9 months early.*
- ★ *Sequence construction to maintain current traffic movements and limit impacts to the community*
- ★ *Use a long-term maintenance strategy that lowers TxDOT's life-cycle costs and protects assets through preventive maintenance operations*
- ★ *Provide additional embankment for ultimate configuration to lower TxDOT's future costs*
- ★ *Improve overall life-cycle costs by enhancing pavement subgrade and wall foundations*
- ★ *Limit Impacts to the community and environment by committing to use local materials to reduce hauling*
- ★ *Help to improve Greater Houston Area air quality by reducing our carbon footprint by 23,400 tons*

The Texas Department of Transportation (TxDOT) provided the leadership and the vision to make the SH 99 Grand Parkway a priority for the transportation plan in Houston. Through a series of segment projects, TxDOT has improved the mobility in the Greater Houston Area and has delivered major portions of the Grand Parkway. Zachry-Kiewit-Traylor Parkway Builders (ZKT) is pleased to be a part of this effort and being a part of TxDOT's selection process to deliver the SH 99 Grand Parkway Segments H, I-1 and I-2 (the Project).

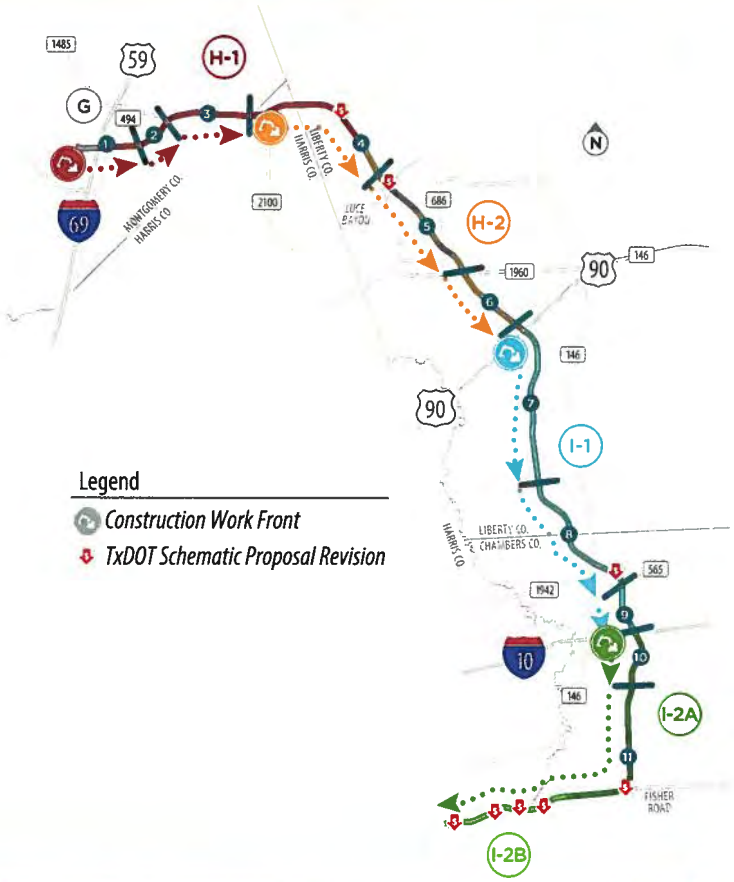
Building off TxDOT's schematic design, ZKT has created this project development plan to describe our approach in addressing the project challenges. This plan leverages the strengths and abilities of our team members and is based on our historical performance:

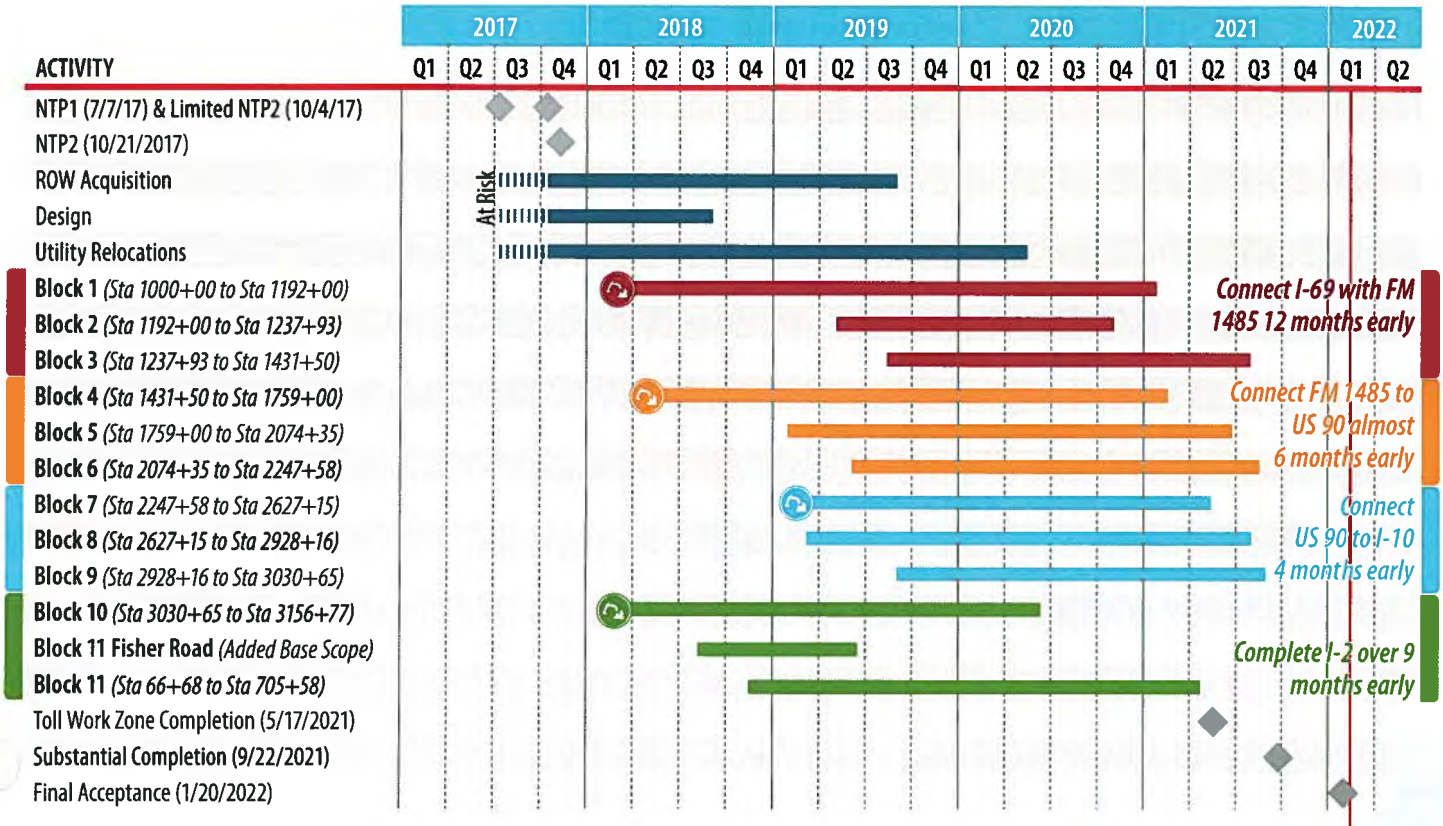
- Managing three projects for TxDOT with values each exceeding $1 billion
- Acquiring nearly 1,200 parcels for Texas right-of-way (ROW)
- Relocating almost 450 utilities on TxDOT design-build projects and working with nearly 80 percent of the utility owners with conflicts on the Project
- Coordinating with the Systems Integrator at 67 locations on five recent TxDOT projects

Our team members have been successful in delivering more TxDOT mega projects than any other company. We have used this experience to assign the right level of resources to the Project, and we commit to working with TxDOT to make the Project a success.

Early Finish

ZKT will complete construction in Blocks 1 and 2 in Segment H-1 over 12 months early and Blocks 10 and 11 in Segment I-2 over 9 months early. Based on our experience delivering large mega projects for TxDOT, we have divided the Project into smaller, more manageable areas, or blocks. Each block is a stand-alone area with activities for ROW acquisition, utility relocation, and construction. This allows us to progress our work in an orderly fashion by completing ROW acquisitions and starting utility relocations before beginning major construction activities. In areas such as Blocks 10 and 11, where there is no new ROW needed, we are able to start and finish construction early.





B. Summary of Changes to QS

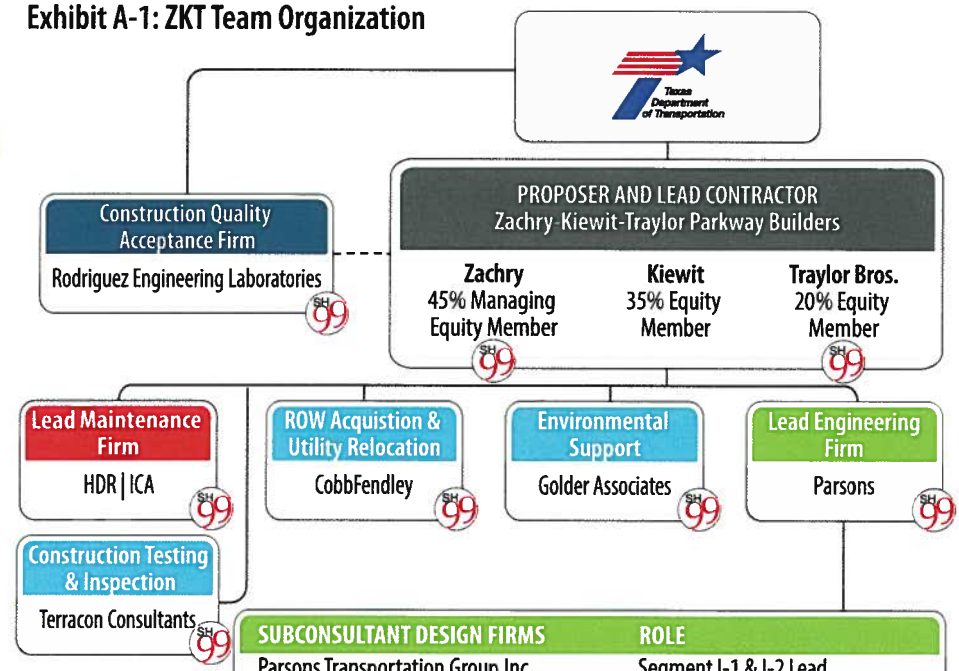
ZKT has incorporated the following changes in our qualifications submittal (QS) as a result of the changes in Equity Member ownership described below in **C. Changes to ZKT Team.**

- Updated financial information for each Equity Member for Fiscal Year 2014
- A revised QS Executive Summary to reflect our new team structure
- A revised organization chart as part of the QS Management Structure section

C. Changes to ZKT Team

ZKT team members are shown in **Exhibit A-1.** All changes in organization and key personnel were submitted to and subsequently approved by TxDOT. Approval letters are provided on pages B-293 and B-300 of the Technical Proposal. These changes are summarized in **Exhibit A-2.**

Exhibit A-1: ZKT Team Organization



SUBCONSULTANT DESIGN FIRMS	ROLE
Parsons Transportation Group Inc.	Segment I-1 & I-2 Lead
Dannenbaum Engineering Corp.	Segment H-2 Lead
PGAL	Segment H-1 Lead
Innovative Engineering Associates **(DBE)**	Design Support
Klotz Associates, Inc.	Design Support
Terracon Consultants, Inc.	Geotechnical
ETTL Engineers & Consultants Inc. **(DBE)**	Geotechnical
Corsair Consultants LLC **(DBE)**	Geotechnical
The Transtec Group, Inc. **(DBE)**	Pavement Design
Walter P Moore and Associates, Inc.	ITS/Lighting/Tolling/Traffic Signal
Costello, Inc.	Drainage Design
Cobb, Fendley & Associates, Inc.	Utility Design

EXHIBIT A-2: ZKT TEAM CHANGES

Organizational Changes

- Removed Odebrecht Construction, Inc. as Equity Member of Proposer and Lead Contractor
- Added Kiewit Infrastructure South Co. as Equity Member of Proposer and Lead Contractor with a 35% ownership percentage
- Changed Zachry Construction Corporation ownership percentage to 45%
- Changed Traylor Bros., Inc. ownership percentage to 20%
- Changed Proposer and Lead Contractor name from Zachry-Odebrecht-Traylor Parkway Builders to Zachry-Kiewit-Traylor Parkway Builders
- Removed O.R. Colan Associates of Illinois, LLC due to a conflict of interest

Key Personnel Changes

- Project Manager: Travis Mross
- Construction Manager: Tom Grim
- Environmental Compliance Manager: Collin Blood
- ROW Acquisition Manager: Thurman Black
- Utility Manager: Jason Walker
- Design Manager: Steven Arent, PE
- Lead Drainage Engineer: Amir Shammet, PE

Key Personnel Additions

- Maintenance Manager: Paul Montgomery
- Maintenance Safety Manager: Ruben Canales

D. Management and Operations

ZKT's day-to-day operations will be led by Project Manager Travis Mross with the full backing of the Joint Venture members. Travis has managed operations on several of TxDOT's largest design-build projects, including SH 99 Grand Parkway Segments F1, F2 and G (Grand Parkway F&G). As shown in **Exhibit A-3**, Travis will be provided senior managers who have the authority to execute the work and make decisions in their areas of responsibility. These managers will work together to provide solutions, monitor for potential risks, and continually progress the schedule.

Throughout each phase of the Project our operations, structure, and focus will change to achieve the project goals in front of us. Each member of ZKT commits to providing the personnel and resources needed to achieve each objective identified by TxDOT.

Our Key Personnel were carefully chosen based on their unique experience on very similar projects such as Grand Parkway F&G. ZKT commits each of these individuals to the success of the Project. Our commitment statement for the Key Personnel is found on page B-292.

E. Project Development Plan Summary

1. Project Management Plan

ZKT's organization is designed with clear lines of responsibility, quality Key Personnel, and well-defined roles.

Our project development plan has been created based on our management approach of empowerment and inclusion. Our organization chart, shown in **Exhibit A-3**, establishes clear lines of responsibility and provides an organization able to meet the specific challenges of the Project. This structure assigns key challenges to senior ZKT managers to oversee and manage. These managers include:

- ROW Manager Vic Rosen, who has recently completed overseeing 435 parcel acquisitions for TxDOT
- Utility Manager Jason Walker, who has recently completed overseeing the relocation of more than 150 utilities for TxDOT
- Design-Build Manager Mark Jurica, who has overseen the design for three design-build projects totalling more than $2 billion
- Lead Quality Manager Mark Brown, who has recently completed managing the quality program on the Grand Parkway F&G project
- Construction Manager Tom Grim, who has managed construction operations on three projects with values exceeding $1 billion
- Maintenance Manager Paul Montgomery, who was a TxDOT district maintenance director for 14 years

These individuals will work together to mitigate risks and lower life-cycle costs for the Project. Third-party stakeholders will be assigned to them to streamline communication, and they will work closely with our quality, safety, and environmental compliance personnel to achieve the contract requirements and commitments.

PROJECT MANAGEMENT PLAN FEATURES

General Project Management
- More manageable blocks of work
- Empower staff to resolve issues
- Assigned third-party coordinators

Risk Management
- Identify and mitigate risks
- Active monitoring for events

Schedule & Cost Control
- Earned Value Methodology to accurately record progress

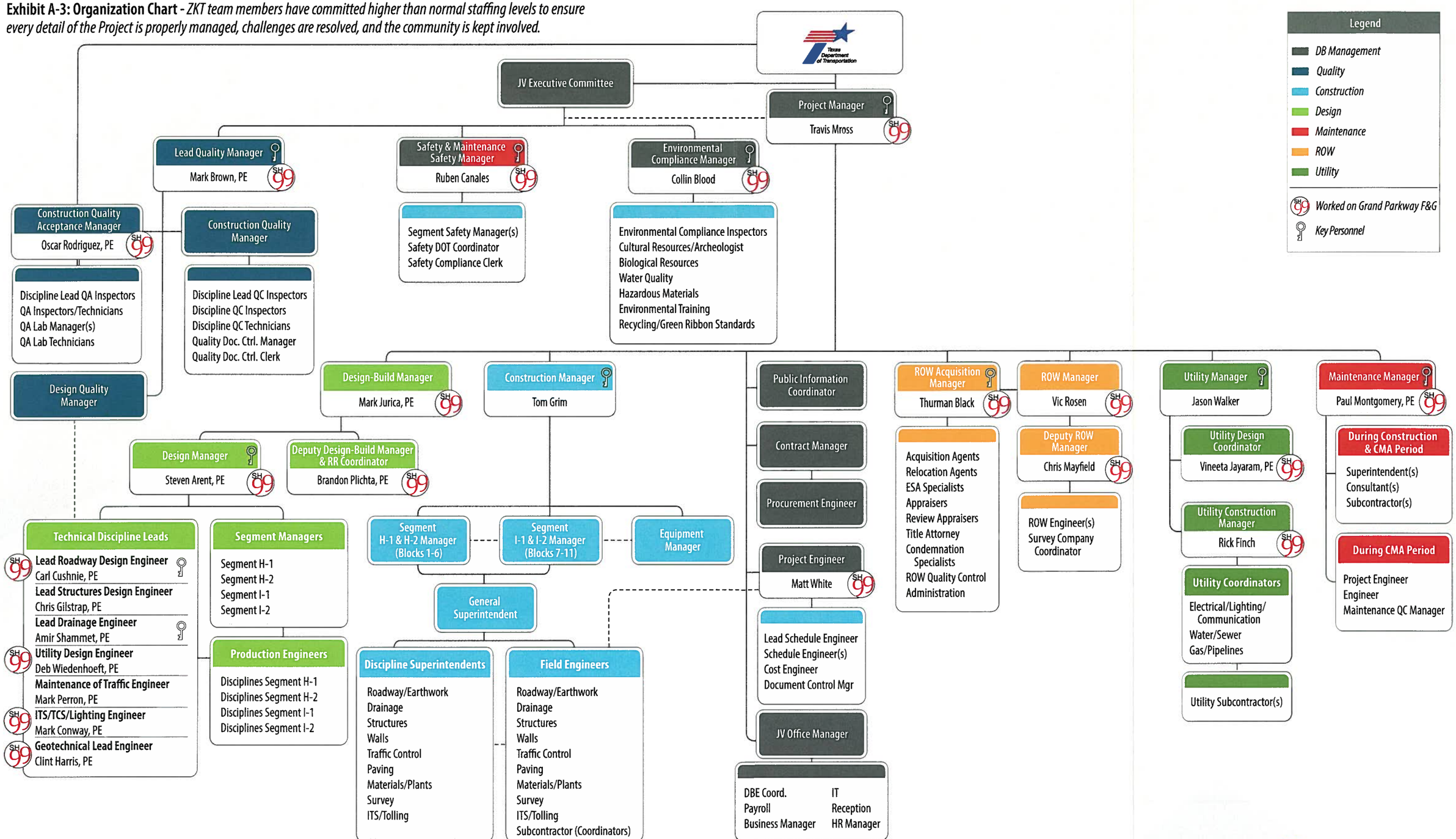
Environmental Management
- EPIC sheets and commitment database
- Experienced consultants

Mentoring and Job Training
- Award-winning program
- Dedicated training facilities

Tolling Infrastructure Coordination
- Coordinated schedule activities
- Dedicated crews to complete

Maintenance Management Plan
- Maximize asset life through preventive maintenance
- Compatible maintenance management system
- Coordinated TxDOT-directed incident response

Exhibit A-3: Organization Chart - *ZKT team members have committed higher than normal staffing levels to ensure every detail of the Project is properly managed, challenges are resolved, and the community is kept involved.*



ZKT empowers all levels of our organization to make decisions in coordination with their TxDOT counterparts.

Our team members' current experience on Grand Parkway F&G has been a major factor in how we have organized the Project. Our structure establishes an integrated management team that provides control and coordination at the segment level, but it allows planning, tracking, and decision making to occur at a lower level. This style of management ensures that we are meeting all of our commitments while still addressing issues at the lowest level in cooperation with TxDOT and its consultants.

To reinforce this commitment, ZKT will facilitate formal partnering combined with our strong existing relationships with TxDOT to foster trust and understanding among team members. We will use partnering to identify the ZKT personnel and their TxDOT counterparts, and to agree on these individuals' levels of authority and how they should communicate as a team. These relationships establish clear communication and escalation protocol, allow resolution of potential road blocks at the lowest level, and enable each team member to know exactly whom to contact to resolve issues.

ZKT developed a disciplined strategy for design, safety, risk management, and securing of third-party approvals for the Project.

Our integrated design, construction, and maintenance teams take a holistic approach with regard to design, safety, risk management, and third-party approvals. Our team looks at the full life-cycle of the Project to ensure that it is safe to construct and maintain for TxDOT, our employees, and for the general public. We have a proactive risk management process that identifies major risks, seeks out design solutions to mitigate them, and aggressively monitors operations to determine if an event is occurring. Our dedicated third-party coordinators will work closely with third-party stakeholders to ensure that they are comfortable with the process and that they understand the requirements and restrictions that may apply. Customized design packages will be created to keep them informed, and we will seek to obtain their approval as early as possible.

Key elements of our safety program include training and the use of job hazard analyses. Safety training starts on day one and continues throughout the life of the Project. Safety Manager Ruben Canales will lead a team of experienced full-time safety superintendents to assist each segment, day and night, with safety training, oversight, and execution of the Safety Plan. In addition, every person on the Project will be assigned the task of personal safety manager on the date of entry to the Project. Every employee is empowered to address safety on the Project at any time, including stopping and/or correcting critical safety issues during the course of the day.

THIRD-PARTY COORDINATION

ZKT has thoroughly reviewed the scope of work and has developed a comprehensive list of third-party entities with which we must coordinate our activities. To ensure that they are engaged throughout the life of the Project, ZKT has dedicated coordinators to each. Each entity/stakeholder will require unique coordination but can be grouped into the categories listed below.

- Counties
- Cities
- Chambers of Commerce
- Railroads
- Environmental Agencies
- Elected Officials
- Federal Regulatory Agencies
- Utility Owners
- Home Owner Associations
- School Districts
- Emergency Response Services
- Adjacent Projects
- Drainage/Flood Districts

ZKT developed a comprehensive strategy for construction management, providing opportunities for DBE participation and other job training.

As shown in **Exhibit A-4**, ZKT has divided the Project into smaller, more manageable construction blocks, as we have done on the DFW Connector and the Grand Parkway F&G projects. These blocks are based on the means needed to access the work area, the amount of ROW to be acquired, utilities to be relocated, and the stakeholders that will provide approvals. These blocks allow us to better control the work by reducing the individual scopes of work to quantities that can be easily understood and managed by our field staff.

Each block has a customized approach based on its particular challenges. Organizing the Project into smaller blocks allows us to prioritize these activities and wait for the area to be clear before starting construction. All these items allow us to more effectively manage the Project and simplify oversight by TxDOT.

ACHIEVING TXDOT GOALS

Having smaller, more manageable blocks of work also assists in providing work for Disadvantaged Business Enterprises (DBEs) and helps us achieve TxDOT's goals.

ZKT will provide a well-maintained project with efficient and safe maintenance responses that are effectively coordinated with all stakeholders and other third parties through a structured public involvement plan.

ZKT will be a strong leader during the maintenance period and will perform all capital maintenance. Our maintenance contractor, HDR | ICA, will perform the specialized inspections and preventive maintenance required to ensure the corridor meets the performance requirements and is safe for the traveling public. Our efforts focus on preventive maintenance techniques that protect the components from degradation and limit the amount of renewal work to be performed. This extends the life of the assets, allowing us to turn over components with a longer design life.

The Traffic Management Plan will contain procedures for coordination and measures to address the needs of stakeholders and other entities affected by traffic control activities. ZKT will inform TxDOT's public information officer of any allowable closures that may affect mobility, as we very successfully did on the DFW Connector and Grand Parkway F&G projects. ZKT will assist TxDOT in providing accurate information to the public, emergency services, schools, and other parties, and will enter lane closure information into the Highway Conditions Reporting System.

Safety of the traveling public, TxDOT, and our workers is our highest priority. We will leverage the experience of TxDOT personnel, our team members, and project personnel to optimize project safety, incorporating provisions into our design to ensure that all maintenance work can be performed safely. ZKT will assign a maintenance safety manager to maintain our strong safety culture and ensure that maintenance personnel are taking ownership of it.

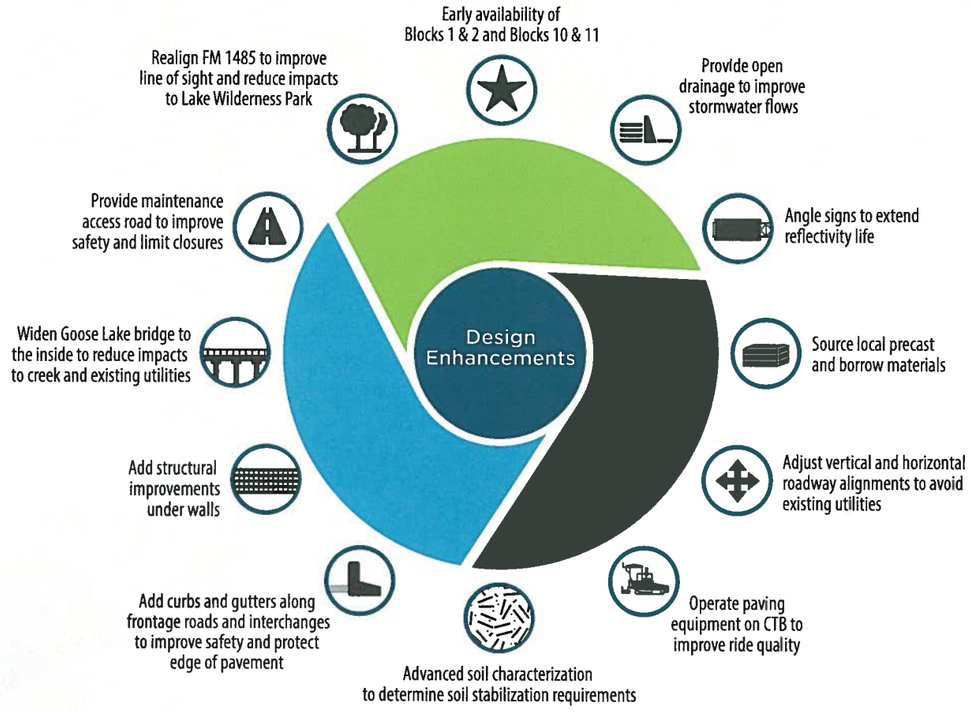
ADDING FEATURES LOWERS LONG-TERM MAINTENANCE COSTS

- Provide maintenance access road
- Target IRI more stringent than contract requirement
- Operate paving equipment on CTB to improve ride quality
- Extend fills & walls to simplify bridge maintenance
- Improvements under walls to increase long term durability

PROVIDES TXDOT $825K OF SAVINGS PER YEAR

Exhibit A-4: Project Enhancements - *Our management style provides focused management that addresses project challenges early and delivers solutions to achieve TxDOT's project goals.*

Design Enhancements

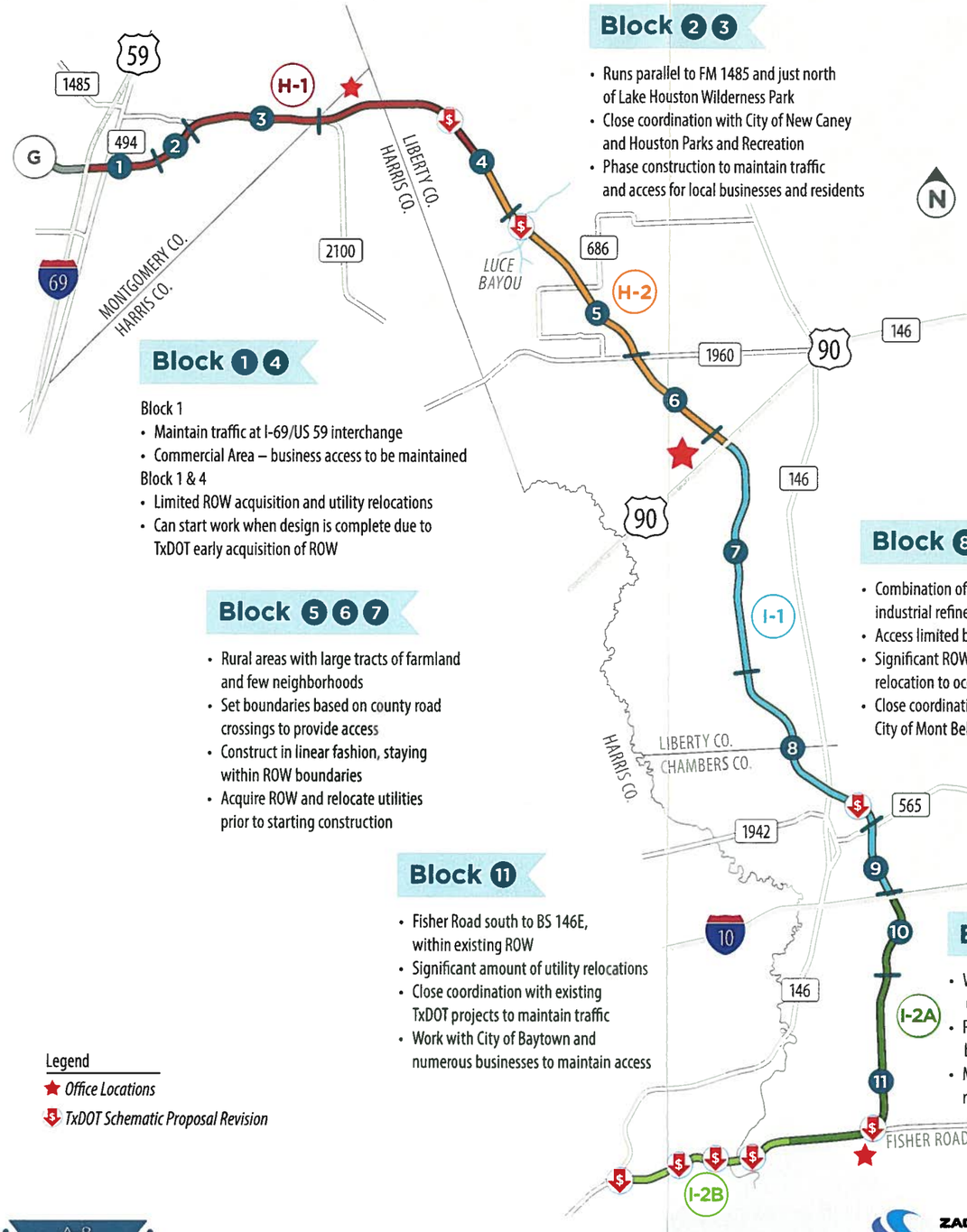


Stakeholders Parcels & Utilities

BLOCKS	1	2	3	4	5	6	7	8	9	10	11	TOTALS
STAKEHOLDERS TO KEEP INVOLVED	19	19	20	21	20	19	20	19	16	13	21	--
PARCELS TO ACQUIRE	3	18	112	17	63	23	33	30	16	0	0	315
UTILITIES TO RELOCATE	11	9	72	3	12	10	15	36	13	2	42	225

During the proposal phase, ZKT's utility team mitigated 126 potential utility conflicts, leaving only 225 that require relocation.

★ PROPOSAL REVISION



Block 2 3

- Runs parallel to FM 1485 and just north of Lake Houston Wilderness Park
- Close coordination with City of New Caney and Houston Parks and Recreation
- Phase construction to maintain traffic and access for local businesses and residents

Block 1 4

Block 1
- Maintain traffic at I-69/US 59 interchange
- Commercial Area – business access to be maintained

Block 1 & 4
- Limited ROW acquisition and utility relocations
- Can start work when design is complete due to TxDOT early acquisition of ROW

Block 5 6 7

- Rural areas with large tracts of farmland and few neighborhoods
- Set boundaries based on county road crossings to provide access
- Construct in linear fashion, staying within ROW boundaries
- Acquire ROW and relocate utilities prior to starting construction

Block 8 9

- Combination of rural properties and industrial refineries
- Access limited by canals and refineries
- Significant ROW acquisition and utility relocation to occur prior to starting construction
- Close coordination with refinery operators, City of Mont Belvieu, and canal authorities

Block 11

- Fisher Road south to BS 146E, within existing ROW
- Significant amount of utility relocations
- Close coordination with existing TxDOT projects to maintain traffic
- Work with City of Baytown and numerous businesses to maintain access

Block 10

- Within existing ROW and has few utility relocations
- Requires close coordination with local businesses with limited access options
- Maintain existing traffic on existing roadway as well as on US 90

Legend
- ★ *Office Locations*
- *TxDOT Schematic Proposal Revision*

ZACHRY | Kiewit | TAYLOR PARKWAY BUILDERS

2. Quality Management Plan

ZKT's ISO-compliant Quality Management Plan integrates TxDOT and enables it to monitor, audit, and measure our design, construction, and maintenance performance.

ZKT will use Zachry's TxDOT-approved, ISO-compliant Quality Management Plan (QMP) as the basis for the Project. The QMP will comply with ISO 9001:2008 for quality systems, quality plans, and quality audits. It identifies the processes and procedures to enable TxDOT to monitor, audit, and measure our performance for the life of the Project. These processes include the creation of a detailed inspection and testing plan that allows TxDOT's oversight inspectors to follow our progress. Pre-activity meetings, initial inspections, and scheduled hold points afford TxDOT the opportunity to measure our performance and provide input or recommendations for improvement. In addition, our document control system is compatible with TxDOT's system to ensure that TxDOT has real-time access to all quality records.

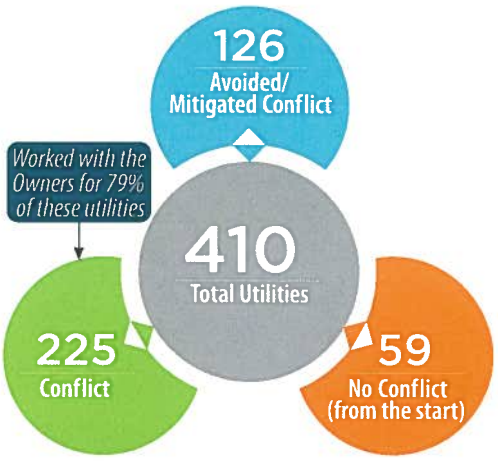
Quality does not begin and end with our construction quality acceptance program. It begins with our design task forces that will be used to establish a collaborative approach to resolving issues. TxDOT will be regularly updated on our design progress and sought out to perform over-the-shoulder reviews. Detailed comment resolution meetings will be held, and the agreed-upon solutions will be documented. These meetings help to establish our collaborative working relationship that will carry on into construction and maintenance. Clear authority levels will be established to resolve issues in the field. Inspectors, superintendents, and engineers will be expected to quickly resolve issues so that our work meets both the contract requirements and the design intent.

To ensure a compliant product, ZKT emphasizes initial process control by organizing our production forces according to discipline. These crews are supervised by experienced foremen and discipline superintendents, who understand the work. The work crews are supported by field engineers and a quality representative to help ensure work is built correctly the first time. Detailed work plans are developed for each significant work item and are reviewed in pre-activity and initial review meetings. This organization establishes internal construction process control, resulting in continuous and compliant production requiring minimum rework.

ADDED FEATURES TO IMPROVE QUALITY

- Increase subsurface stabilization depth under pavement in areas of high swell potential, to improve long-term ride quality
- Extend cement-treated base limits to provide working surface for paving equipment and improve ride quality

Our team members have established relationships with key Utility Owners and have successfully worked with them on Grand Parkway F&G.



3. Technical Solutions

ZKT's innovative design, construction, and maintenance solutions provide coordinated activities with other projects and stakeholders, an efficient and coordinated utility relocation plan, and effective environmental protection program.

Our proposed design has only made slight modifications to TxDOT's conceptual design. Our optimizations help achieve TxDOT's objectives to accommodate other projects and key stakeholders, limit impacts to existing utilities, and address community sensitivities and commitments. Our design was based on detailed life-cycle cost analyses to lower long-term maintenance costs with a focus on continuously reinforced concrete pavement (CRCP) and open drainage systems with

self-cleaning velocities. These designs allow us to extend the life of each element with a simple, low-cost preventive maintenance program that efficiently employs dedicated maintenance personnel.

Our team members have an established presence within the Greater Houston Area and have strong relationships with those in our industry. We have scheduled our construction activities to accommodate TxDOT's planned work. Our team members have completed the Grand Parkway F&G interchange with I-69/US 59, and our design is fully compatible. Our dedicated third-party coordinators will reach out to all stakeholders to ensure that we understand their projects over the next 5 years.

Our team members have established relationships with key Utility Owners and have successfully worked with them on Grand Parkway F&G. Dedicated coordinators will be assigned to each Utility Owner, and customized packages will be created to clearly communicate the requirements and assist in performing relocations sooner.

Maintaining community support for the Project is critical to success. Our design takes all environmental commitments and community sensitivities into account. Our design limits the impacts to both the environment and the communities by keeping work within the ROW. Our design reduces earthwork efforts by more than 2 million cubic yards and concrete quantities by almost 30,000 cubic yards. These reductions limit our equipment usage, exhaust emissions, and trucks traveling to the project site. These benefits will be communicated to both regulatory agencies and the public through our dedicated third-party coordinators. Commitments made to these entities will be tracked in a database and communicated through the use of Environmental Permits, Issues, and Commitments (EPIC) sheets. Customized packages will be created for each stakeholder to quickly communicate their items of concern. This approach involves these stakeholders early and maintains their interest throughout the life of the Project.

ADDING FEATURES TO LOWER TXDOT'S COSTS

- Improving over 450,000 cubic yards of material that is usable by the ultimate configuration lowers TxDOT's future costs by $1.5 million
- Avoiding 126 utility relocations by optimizing the alignment and adding concrete caps lowers TxDOT's project costs by $100 million

F. ZKT's Approach to Exceeding DBE Requirements

ZKT brings in-depth understanding of the local small business subcontractor and vendor markets in Houston, which will be critical to successful project execution. We have already begun identifying areas of work that allow meaningful participation of disadvantaged business enterprises (DBEs) during design and construction. As we have done on the DFW Connector and the Grand Parkway F&G projects, we will participate in local DBE outreach events and will place advertisements in minority- focused publications to maximize participation on the Project. We will implement mentor-protégé relationships based on Zachry's award-winning DBE Mentor-Protégé program. By actively engaging local DBEs and incorporating them into our team, ZKT maximizes opportunities for DBE firms to further develop skills that will enable them to manage future TxDOT work.

ZKT has already held two DBE Outreach Meetings to create interest for the Project