

## A. TECHNICAL PROPOSAL ORGANIZATION & CONTENTS

Following the direction of the Instructions to Proposers, Hill Country Infrastructure (HCI) has organized its response according to the checklist in Exhibit E and contains the requirements of Exhibit B. HCI Concept Plans and the schedule are included in the Appendices in 11 x 17 and roll plot format. These include:

### Concept Plans – 11 x 17 Appendix

- Structures
- Retaining Walls and Sound Walls

### Concept Plans – Roll Plots

- Typical Section
- Horizontal Alignment Data
- Roadway, Drainage and Walls
- Roadway Profile
- Traffic Control Plan

### Schedule – 11 x 17 Appendix

1. Work Breakdown Schedule Summary
2. Critical Path Schedule
3. Work Breakdown Schedule
4. Traffic Switch Summary Schedule
5. TCP Phases Schedule Summary

### HCI TEAM STRUCTURE:

- **Proposer and DB Contractor:** HCI (Webber and FAUS)
- **Lead Engineering Firm:** CONSOR-OTHON
- **Independent Quality Firm:** Rodriguez Engineering Laboratories
- **Professional Services Quality Assurance Firm:** Volkert
- **Engineering Support:** Arcadis
- **Utilities:** Costello
- **Environmental Services:** SWCA
- **Geotechnical Services:** PSI
- **Certified Arborist Firm:** Austin Tree Experts

Additionally, documentation related to our technical due diligence and investigations is included electronically in the form of Exhibit M in accordance with the instructions emailed to Proposers on February 6, 2020.

## B. QS CHANGES

HCI has no changes to our QS beyond those described in Section C below.

## C. ORGANIZATION & KEY PERSONNEL CHANGES

HCI submitted one change in organization. This change was to inform TxDOT that Lead Engineering Firm member AIA, through an acquisition, had become CONSOR Engineers, LLC. TxDOT accepted this change; the TxDOT approval letter is included in the Technical Proposal.

HCI VARs and design and construction solutions are derived from our best practices and lessons learned as a result of having reconstructed and opened early several major highways within the DFW Metroplex including I-635 LBJ, NTE and I-35W amounting to \$5.6B worth of design-build projects.

Changes in Key Personnel include:

- Satya Guduru as Project Manager, replacing Carlos Escrig
- Sergio Gijon as Construction Manager, replacing Dan Holycross
- Lisa Robinson as Right of Way Acquisition Manager, replacing Arthur West

The TxDOT letters showing acceptance of these changes are included in the response.

## D. MANAGEMENT STRUCTURE

Day-to-day and operational decision making authority and accountability will be vested in our project manager, Satya Guduru. He is TxDOT's sole point of contact for communication on all items, except those specifically assigned to others. A corporate management committee including senior management for the DB Contractor will oversee the organization and major strategic decisions.

### COMMITMENT STATEMENT

Each major participant with key personnel commits to providing the specified individuals:

- Webber – Project Manager Satya Guduru, Safety Manager Bobby Terrell
- FAUS – Construction Manager Sergio Gijon, Utility Manager Javier Moino
- CONSOR – Design Manager Sandeep Patil, PE
- OTHON – Lead MOT Design Engineer Danny Davila, PE

Additionally, HCI affirms all key personnel as listed in Form D are committed to the project regardless of whether provided by a major participant or team member.

## E. TECHNICAL SOLUTIONS SUMMARY

### 1. PROJECT MANAGEMENT

HCI identified a significant number of Value Added Responses (VARs) or proposal commitments that exceed the requirements of the Project Management Plan (PMP). We have included the VARs that provide superior benefits and value to TxDOT and/or result in outstanding improvements in implementation of the Project. A few examples by PMP component plan:

**Public Information and Communications Plan:** In addition to the required \$60K allotted in Item 11, we pledge an additional \$25K to assist with the public information campaign or community support through STEM and environmental education grants/scholarships.

**Comprehensive Environmental Protection Plan & Third Parties Plan:** Colocate and fund one engineer from TCEQ / Edwards Aquifer to focus on and expedite approval process of Water Pollution Abatement Plan (WPAP), Contributing Zone Plan (CZP) and PSL SW3P site plan.

**Risk Management Plan:** To minimize complaints and potential litigation, preconstruction surveys of the properties on the corridor will be conducted to document pre-existing conditions and adjacent building/property status.

**Traffic Management Plan:** Two patrols to provide assistance to stranded motorists day and night. Patrols will also make repairs to pot holes, stormwater management devices and temporary traffic control devices.

**Maintenance Management Plan:** Maintenance Manager will be onsite, colocated starting at design, not just when maintenance work is being performed.

**DBE Good Faith Efforts Plan:** Dedicated person, Labor Compliance Specialist, in addition to the DBE liaison team, to ensure labor compliance and the OJT trainee goal is met.

Shown on pages 4 and 5 of the PMP section is the Value-Added Features Map from the Design & Construction Plan section. This map illustrates and describes the value-added components of our technical solution.

### Sample VARs from Design & Construction Plan

**Safety:** To enhance standard safety protocols, assistant superintendents, superintendents, segment managers, construction manager and project manager will be OSHA 30 trained. Surveyors, quality inspectors, environmental inspectors will be OSHA 10 trained

**Tree Preservation:** Realigned both ML and FR along US 290 to the West of W. William Cannon to minimize impact on Grandmother Oak and move construction further from bluff.

**Utilities:** At the east end of project, smaller 12' light poles are used to reduce conflict with overhead electrical and communication poles.

## 2. QUALITY MANAGEMENT

HCI will prepare and submit for TxDOT’s approval a Quality Management Plan that complies with Section 4.3 of the DBA General Conditions. Our goal is to deliver the best quality product while maintaining complete transparency in the quality management process.

HCI’s quality VARs exceed the requirements of the Quality Management Plan and improve the overall quality of the project. The VARs bring best practices, lessons learned and unique solutions from similar projects. Examples include:

**General Requirements:** Three levels of internal quality control audits performed by 1) HCI quality control department, 2) FAUS quality, safety and environmental director and 3) Ferrovial Agroman’s global quality, safety and environmental directors.




**Professional Services Quality Management Plan:** Formalized procedure for stop work authority will be defined for the PSQCM and PSQAM. Currently, stop work procedure is undefined. A clear procedure the entire project can follow will be established. Quality Control Program and Independent Quality Program will utilize same procedure to identify stop work, and initiation and rectify instances that require stop work. Proper training on formal stop/start work procedures will be provided.

**Construction Quality Management Plan:** HCI will employ drones in accordance with the Federal Aviation Agency requirements to support and supplement the survey team.

**Construction Quality Management Plan:** Material suppliers’ common practices vary from location to location. As soon as a material supplier (concrete, asphalt plants, etc) is chosen, IQF will inspect plant to confirm that state, federal and project requirements and TxDOT protocols are being followed. This will help in detecting potential quality issues before material is shipped.

## 3. DESIGN & CONSTRUCTION PLAN

HCI has provided numerous optimizations that provide TxDOT and stakeholders with added value and exceed requirements. Benefits of these elements include reduced impacts to traveling public, improved accessibility, accelerated construction and lower maintenance costs.

We have identified VARs throughout the Design and Construction Plan with this icon . Additionally, items that provide benefit or optimization are shown with  and items that address TxDOT’s goals and objectives are noted with .

### Traffic Management & Construction Sequencing

We have divided the Project into three segments based upon constructability and management of traffic. Construction of each segment will be done in accordance with the Traffic Control Plans (TCP). Our traffic control plans have been optimized to minimize traffic disruptions and improve the construction schedule. Our methodologies focus on the safety of the traveling public, construction workforce, TxDOT personnel and other individuals around the work zone. While there are inherent risks associated with building near existing traffic, our TCP approach preserves our commitment to safety while expediting construction and improving emergency response. Features of our TCP are shown in Table 1.

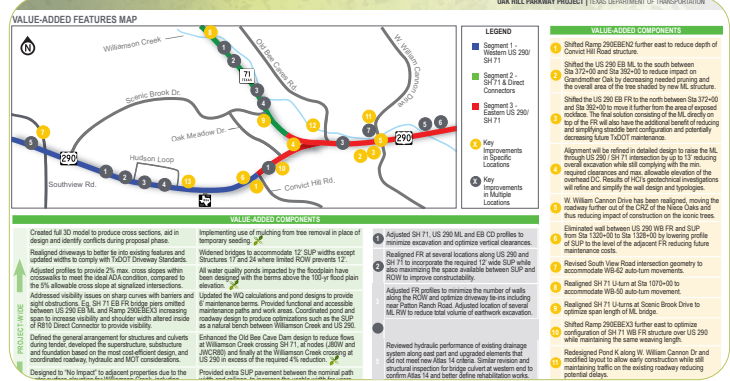
### Design Optimizations Benefiting TCP

- 1) realignment of US 290 EB ML to the south to reduce impact on Grandmother Oak.
- 2) realignment of US 290 EB FR to the north to increase distance between the roadway and existing exposed face rock cut.

The combination of 1) and 2) produce a more optimized structural layout for the straddle bents reducing their length and potential future maintenance costs. The reduced length allows the forms to be installed over live traffic.

**Value-Added Features Map**

HCI's design optimizations are detailed in the Value-Added Features Map. Working with TxDOT and major stakeholders, we will continue to refine and find new solutions and optimizations.



Value-Added Features Map

**Technical Due Diligence & Investigations**

Recognizing the project's greatest challenges and the elements for the highest risk of cost increases, schedule delays and/or impacts to the public, HCI performed additional due diligence on three critical areas: karst, Iconic Trees and hazardous materials. This work included:

- Karst features surveys (to confirm the information provided by TxDOT)
- Tree survey (to confirm the status of the Iconic Trees defined by TxDOT)
- Hazardous Materials (investigations/due diligence not included in the RIDs)

In addition, HCI performed the following due diligence investigations:

- Additional ground investigation (new boreholes and piezometers, among other tests)
- Structural inspections (to verify/expand on RIDs)
- Utility relocation analysis, investigations and conflict matrix (to confirm RIDs data and identify additional conflicts)

Performing our own investigations during the proposal phase enabled us to produce a more accurate design and reduce risk, and will also result in accelerated mobilization upon notice to proceed. It also substantiates and provides a more real proposal price.

Documentation in reference to the technical due diligence and investigations described above is included as Exhibit M.

**F. DBE APPROACH**

HCI will facilitate DBE participation while providing the resources economic growth and success. We have a proven record of exceeding participation goals through effective comprehensive compliance strategies to monitor and ensure regulatory compliance. We will utilize outreach initiatives such as customized work packages as well as provide mentoring and training. We will use our proven strategies, lessons learned and best practices to ensure we achieve our VAR of at least 15% DBE participation for professional services and 8% for construction services.

Project	Goal	Result
I-635 LBJ	\$177M	\$290M
NTE 1&2	\$127M	\$217M
I-35W 3A	\$53M	\$105M



FAUS & Webber comparable projects sampling.