



November 25, 2025

Mr. Matt Hanks, JD, PE  
County Engineer  
Brazoria County  
451 N Velasco, Suite 230  
Angleton, Texas 77515

**Re: Proposal for Professional Engineering Services  
Water Supply Study for the Brazoria County Detention Facility Campus  
Amendment #2  
Condition Assessment for Brazoria County Detention Facility Water Treatment Facility**

Dear Mr. Hanks:

HDR Engineering, Inc. (HDR) is pleased to submit this proposal for professional engineering services to perform a Condition Assessment for the Brazoria County Detention Facility Water Treatment Facility. The proposal is based on our understanding of the project from discussions with Brazoria County staff. For your convenience, this proposal consists of Project Understanding, Scope of Services, Fee Summary, and Schedule.

#### **PROJECT UNDERSTANDING**

Brazoria County (the County) operates the Brazoria County Detention Facility Campus (Campus) located north of the City of Angleton. Currently, the campus is supplied by groundwater from an onsite well located that is owned and operated by the County. The County has met with the City of Angleton and discussed the possibility of the City providing water service to meet current and future demands at the Campus.

The County has requested HDR provide a proposal with a scope of services to perform a Condition Assessment on the groundwater treatment facilities on the campus to determine improvements that should be included as part of the City providing future water supply.

The existing groundwater treatment facilities include the following primary components:

- Groundwater well – This well contains arsenic levels that are well above the current regulatory levels of 10 parts per billion.
- Aeration Tower – Cascade aerators to oxidize arsenic into a more filterable form.
- Ground Storage Tank – 750,000-gallon concrete tank.
- Arsenic Removal System – Pressure filters and pH adjustment to lower arsenic levels. This includes sulfuric acid and ferric chloride feed systems.
- High Service Pumps - Two booster pumps to provide pressurized water to the campus.
- Disinfection System – Chlorination system utilizing multiple 150-pound cylinders of gaseous chlorine.
- Fire Pump System – Fire pump driven by a diesel engine.
- High Service Pump Building – Concrete block building housing the high service pumps, control panels and other instruments.

## **SCOPE OF SERVICES**

### **1. Project Management and QA/QC**

HDR will perform project management activities under this task, including coordination, scheduling, budgeting, and accounting, and will complete quality assurance/quality control (QA/QC) reviews of work products.

### **2. Kickoff Meeting**

HDR will conduct a two-hour kickoff meeting with the County to establish project objectives and understand the existing information available. Topics will include, but are not limited to, project schedule, project deliverables, communication protocols, as well as the following project topics:

- Reliability and redundancy requirements
- Average and peak flow projections for domestic and fire supply systems
- Backup power on the campus
- Preliminary discussions on potential future asset layouts

### **3. Condition Assessment of Remaining Assets**

HDR will provide two staff to assess the condition of the assets that are determined to either remain in service or be replaced as part of the connection to the City of Angleton water system. This proposal assumes the following assets will be included in the Condition Assessment:

- Ground Storage Tank – HDR will utilize the County's existing condition reports from a third-party firm for this task.
- High Service Pump System – Pumps, motors, controls, piping, valves and other appurtenances.
- Fire Pump System – Pump, diesel engine drive, controls, piping, valves, building, and other appurtenances.
- Chlorine System – Gaseous chlorine system
- Site Electrical – Incoming service line and general electrical equipment
- Site Civil – Items such as fencing and site lighting.

The existing well, aeration tower, and arsenic filtration systems will not be evaluated.

HDR will evaluate each of these systems from a mechanical, structural, electrical, and instrumentation perspective, as they apply to the system. HDR will utilize asset age, condition, estimated remaining useful life, and expected capacity in its assessment. A recommendation will be made for each asset to remain, be repaired, or be replaced. A Class 5 preliminary construction cost estimate will be generated for each recommendation.

### **4. Review of Operator Licensing Requirements**

One of the potential recommendations of this assessment is for the City of Angleton to deliver potable water into the Ground Storage Tank, and then have the County add additional chlorine or chloramines as it is pumped out of the Ground Storage Tank.

HDR will conduct research on regulations and confirm with TCEQ whether a licensed water operator will be required for this scenario. This finding will be documented in the Condition Assessment Report.

## **5. Condition Assessment Report**

HDR will prepare a draft and final Condition Assessment Report.

## **6. ADDITIONAL SERVICES**

Additional Services shall only be performed when directed by the County to HDR. These services are not considered normal or customary engineering services.

- Services resulting from significant changes in the extent of the project or its design including but not limited to changes in size, complexity, the County's schedule, or character of construction or method of financing; and revising previously accepted studies, reports, design documents or Contract Documents when such revisions are due to causes beyond HDR's control.
- Preparing to serve or serving as a consultant or witness for the County in any litigation, public hearing or other legal or administrative proceedings involving the Project.
- HDR will endeavor to appraise the County of any potential additional or extended services that may result from the above-listed items, prior to HDR's expenditure of time on such services. As previously noted, any such extended or additional services shall only be performed when directed by the County to HDR.

## **7. KEY ASSUMPTIONS**

- This scope of services does not include preliminary or final design of recommended facility improvements. This task will be addressed in a future proposal.
- The evaluation of impacts and testing to changes in water quality will not be addressed in this scope of services. This task will be included in the final design of the project which will be submitted at a later date.
- Any preliminary cost estimates will be limited to Class 5 level of effort, as defined by AACE International.

## **FEE SUMMARY**

Project Management and QAQC	\$ 3,800
Kickoff Meeting	\$ 4,700
Condition Assessment	\$31,200
Operator Licensing Requirements	\$1,500
<u>Condition Assessment Report</u>	<u>\$ 12,800</u>
<b>Total Fee:</b>	<b>\$ 54,000</b>

## **SCHEDEULE**

The draft report will be delivered within 60 days of receipt of Notice to Proceed and receipt of a signed agreement. The final report will be delivered within 30 days of receipt of comments from the County.

## **TERMS AND CONDITIONS**

This project will be performed under the contract executed contract dated June 19, 2025.

## **INVOICES**

HDR will submit monthly invoices for all engineering work completed by invoice date. The invoices for lump sum work will be based on a percentage of completion of each phase applied to the lump sum fee and based on the appropriate fee cost for work from our subconsultants. Time and materials charges and additional services beyond those described in the Scope of Services will be invoiced on the basis of direct labor costs times a factor of 3.18 and direct cost plus 10%. Mileage will be charged at prevailing IRS rates.

HDR appreciates the opportunity to submit this proposal, and we look forward to continuing our work with the County.

Sincerely,

HDR Engineering, Inc.



David C. Weston  
Vice President

Acceptance: Please indicate acceptance of this letter agreement by affixing your signature or that of your authorized representative in the space below.

County of Brazoria, Texas

Authorized Signatory: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_