

Bohannon Huston

Chaparral High School Wastewater Treatment and Disposal System Design Scope of Services

A. PROJECT DESCRIPTION

Design, bidding and construction phase engineering services will be provided for a treatment facility and effluent disposal system for the new Chaparral in the community of Chaparral, New Mexico. The system to be provided will consistent with the recommendation for service provided to the Gadsden Independent School District (GISD) in the report titled WASTEWATER SYSTEM EVALUATION FOR THE CHAPARRAL HIGH SCHOOL dated NOVEMBER 10, 2004 prepared by Bohannon Huston, Inc. This report recommended that a new package treatment facility and subsurface leachfield be constructed with a design capacity of 25,000 gallons per day. Because the facility use will be temporary, an above ground steel tank configuration will be utilized for the treatment plant. The configuration will provide the ease of relocation necessary for the facility to be taken out of service once the new Dona Ana County (DAC) facility for the Chaparral community is operational. The leachfield will occupy between 1 and 2 acres at the high school site and will be abandoned in place upon completion of the DAC system.

All facilities will be constructed on school property and as such, no acquisition of land is included in this scope. We will prepare the NMED discharge permit for the temporary system as a part of this scope. The initial permit period will be for 5 years which will exceed the time needed to complete the DAC system.

Basemapping for the project will be provided by GISD for the school site. Supplemental topographic, planimetric and boundary surveys will be provided by GISD if needed to complete the design.

The project may be funded by multiple sources including state and federal agencies. The project is subject to the requirements of these agencies and all work related to agency reviews, funding and contract forms are included in the basic engineering services. Status reports and meetings required to facilitate agency review and progress reports are also included in basic services.

Geotechnical investigation and engineering and utility potholing are not included in basic engineering services.

B. BASIC SERVICES

The Engineer's Basic Services shall consist of the phases described below. The Engineer shall obtain written authorization from GISD's Project Manager prior to beginning each subsequent phase for each project component. The basic services described below are based on a conventional design-bid-construction procurement process for state procured projects. All design files will be developed in AutoCAD. Contract documents and specifications files will be developed in Microsoft Word

Bohannon Huston

1. Preliminary Design
 - a. Conduct field reconnaissance to determine surface conditions within the project area.
 - b. Attend coordination meetings with GISD. Review and document design preferences with GISD staff. Coordinate with GISD's school contractor and engineer for power extensions to the lift station and treatment plant.
 - c. Prepare civil, structural, electrical, mechanical, and process design plans for lift station, and treatment plant.
 - d. Prepare Plans and details for the effluent disposal area.
 - e. Prepare technical specifications and contract documents for project construction.
 - f. Prepare preliminary opinion of probable construction costs.
 - g. Prepare design summary documentation for lift station and treatment plant and effluent disposal area.
 - h. Prepare and submit NMED Effluent Discharge permit. Respond to comments and coordinate public notification.
 - i. Submit five copies of the preliminary design documents and present and review them in person with GISD.
 - j. Submit review copies to funding agencies.
 - k. Submit review copies to DAC utilities and respond to comments.

2. Final Design Phase
 - a. Finalize design drawings, contract documents, and technical specifications per DAC, GISD and other comments review comments.
 - b. Prepare a revised opinion of probable construction costs
 - c. Submit five copies of final design documents and present and review them in person with DAC and GISD.
 - d. Submit review copies to funding agencies
 - e. Submit review copies to DAC utilities and respond to comments.

3. Final Construction Documents
 - a. Provide certified construction mylars and specifications for bidding based on 95% review comments from the agencies.

4. Bidding Phase
 - a. Prepare advertisement of Request for Bid to Contractors.
 - b. Conduct pre-bid meeting.
 - c. Print twenty (20) copies of Contract Documents available for distribution to prospective bidders. Distribute contract document to prospective bidders and plan rooms in Las Cruces, Albuquerque and El Paso for review by bidders.
 - d. Provide clarification of the contract document's intent during the bidding process and determine the need for issuance of addenda.

- e. Prepare and distribute addenda when required.
 - f. Maintain bidder's log and addenda distribution log. Addenda shall be distributed not less than two working days prior to bid opening.
 - g. Conduct the Bid Opening.
 - h. Tabulate and assist DAC in evaluating the bids.
 - i. Advise DAC as to the acceptability of subcontractors, suppliers and other persons or organizations proposed by the lowest responsive bidder.
 - j. Prepare a recommendation of award letter to the DAC.
5. Construction Phase
- a. Submit to the Owner a list of critical observation points and conduct a pre-construction conference.
 - b. Make periodic visits to the site at such times (2 per month) as appropriate during the progress of the work to observe the progress and quality of the work and advise the Owner.
 - c. Review Contractor's Pay Applications and certify recommendations for payment.
 - d. Render interpretations of documents as necessary.
 - e. Review Contractor's Submittals for conformance with Design Concept and Contract Documents.
 - f. Prepare Change Orders as necessary to facilitate minor changes on work as required by field conditions.
 - g. Prepare Operations and Maintenance Manual.
 - h. Coordinate and conduct Final Inspection and obtain all written warranties and related documents as required by the Contract Documents.
 - i. Modify the original reproducible drawings delineating recorded as-built conditions provided by the contractor.
 - j. Coordinate and conduct 11 month warranty review.

C. FEE ESTIMATE

1. BHI will provide the services described above on a lump sum fee basis. The fee includes all labor, materials, equipment, taxes, and miscellaneous expenses (except those noted below).

Preliminary/Final Design/Permitting	\$47,000.00
Bidding	\$ 5,200.00
Construction Administration	\$10,500.00
Total Basic Design Services	\$62,200.00

2. Reimbursable Expenses
- a. Project Related Mileage/Travel expenses

Bohannon & Huston

- b. Advertisements for bidding construction
- c. Reproduction of documents
- d. Postage/Shipping
- e. Fees paid for securing approvals.

Reimbursable Expenses at invoice cost

Initial budget - \$1,000

D. PROJECT SCHEDULE

- 1 Complete preliminary design layout with 8 weeks of written notice to proceed. Submit for review and approval.
- 2 Complete final design, contract documents and specifications within 4 weeks of receipt of all review comments. Submit NMED discharge permit upon completion of final design. Submit for review and approval.
- 3 Start bidding and construction schedules in accordance with schedule preference. Bidding phase will require approximately 45-60 days to complete. Construction schedule to start within 10 days of completion of bidding and contract award. Estimated construction time is 90-120 calendar days.
- 4 The total estimated delivery time for completed design, including reviews, is 16 weeks from notice to proceed assuming property acquisition is at least confirmed with letters of intent.

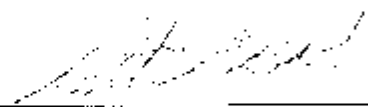
The estimated completion dates are based on the timely completion of the preceding tasks and required mapping and surveying already being completed.

AGREED AND RECOMMENDED:

APPROVED:

Engineer: Bohannon-Huston Inc.

Owner: Alley and Associates

By: 

By: _____

Title: _____

Title: _____