

*Fort Bend County, Texas  
Invitation for Bid*



*Construction of Water Supply Well at Harlem Park Sports Facilities for Fort Bend County  
BID 18-090*

**SUBMIT BIDS TO:**

Fort Bend County  
Purchasing Department  
Travis Annex  
301 Jackson, Suite 201  
Richmond, TX 77469

**Note:** All correspondence must include the term  
“Purchasing Department” in address to assist in  
proper delivery

**SUBMIT NO LATER THAN:**

Tuesday, August 14, 2018  
2:00 PM (Central)

**MARK ENVELOPE:**

**BID 18-090  
Water Well**

***ALL BIDS MUST BE RECEIVED IN AND TIME/DATE STAMPED BY THE PURCHASING OFFICE  
OF FORT BEND COUNTY ON OR BEFORE THE SPECIFIED TIME/DATE STATED ABOVE.***

***BIDS RECEIVED AS REQUIRED WILL THEN BE OPENED AND PUBLICLY READ.***

***BIDS RECEIVED AFTER THE SPECIFIED TIME, WILL BE RETURNED UNOPENED.***

Results will not be given by phone.  
Results will be provided to bidder in writing  
after Commissioners Court award.

Requests for information must be in  
writing and directed to:  
Jaime Kovar  
Assistant County Purchasing Agent  
[Jaime.kovar@fortbendcountytexas.gov](mailto:Jaime.kovar@fortbendcountytexas.gov)

**Vendor Responsibilities:**

- Download and complete any addendums. (Addendums will be posted on the Fort Bend County website no  
Later than 48 hours prior to bid opening)
- Submit response in accordance with requirements stated on the cover of this document.
- DO NOT submit responses via email or fax.



## COUNTY PURCHASING AGENT

Fort Bend County, Texas

### Vendor Information

Debbie Kaminski, CPPB  
County Purchasing Agent

Office (281) 341-8640

|  |   |  |
|--|---|--|
| Legal Company Name<br><small>(top line of W9)</small>                              |   |  |
| Business Name<br><small>(if different from legal name)</small>                     |   |  |
| Federal ID # or S.S. #   |   |  |
| Type of Business   | <input type="checkbox"/> Corporation/LLC <input type="checkbox"/> Partnership<br><input type="checkbox"/> Sole Proprietor/Individual <input type="checkbox"/> Tax Exempt Organization   |  |
| Publicly Traded Business   | <input type="checkbox"/> No <input type="checkbox"/> Yes    Ticker Symbol _____   |  |
| Remittance Address   |   |  |
| City/State/Zip   |   |  |
| Physical Address   |   |  |
| City/State/Zip   |   |  |
| Phone/Fax Number   | Phone: _____      Fax: _____  |  |
| Contact Person   |   |  |
| E-mail   |   |  |
| Check all that apply to the company listed above and provide certification number. | DBE-Disadvantaged Business Enterprise <input type="checkbox"/> <b>Certification #</b> _____<br>SBE-Small Business Enterprise <input type="checkbox"/> <b>Certification #</b> _____<br>HUB –Texas Historically Underutilized Business <input type="checkbox"/> <b>Certification #</b> _____<br>WBE-Women’s Business Enterprise <input type="checkbox"/> <b>Certification #</b> _____ |  |
| Company’s gross annual receipts  | <\$500,000 <input type="checkbox"/>   | \$500,000-\$4,999,999 <input type="checkbox"/>     |
|  | \$5,000,000-\$16,999,999 <input type="checkbox"/>   | \$17,000,000-\$22,399,999 <input type="checkbox"/> |
|  | >\$22,400,000 <input type="checkbox"/>  |  |
| NAICs codes (Please enter all that apply)  |   |  |
| Signature of Authorized Representative   |   |  |
| Printed Name   |   |  |
| Title  |   |  |
| Date   |   |  |

**THIS FORM MUST BE SUBMITTED WITH THE SOLICITATION RESPONSE.**

## 1.0 GENERAL REQUIREMENTS:

- 1.1 Read this entire document carefully. Follow all instructions. You are responsible for fulfilling all requirements and specifications. Be sure you understand them.
- 1.2 General Requirements apply to all advertised bids; however, these may be superseded, whole or in part, by the scope, special requirements, specifications, special specifications or other data contained herein.
- 1.3 Governing Law: Bidder is advised that these requirements shall be fully governed by the laws of the State of Texas and that Fort Bend County may request and rely on advice, decisions and opinions of the Attorney General of Texas and the County Attorney concerning any portion of these requirements.
- 1.4 Bid Form Completion: Fill out, sign, and return to the Fort Bend County Purchasing Department one (1) complete bid form. An authorized representative of the bidder must sign the Contract Sheet. The Contract will be binding only when signed by the County Judge, Fort Bend County and a purchase order authorizing the item(s) desired has been issued. The use of corrective fluid is not acceptable and may result in the disqualification of bid. If an error is made, the bidder must draw a line through error and initial each change.
- 1.5 Bid Returns: Bidders must return all completed bids to the Fort Bend County Purchasing Department at 301 Jackson, Suite 201 Richmond Texas no later than 2:00 P.M. on the date specified. Late bids will not be accepted. Bids must be submitted in a sealed envelope, addressed as follows: Fort Bend County Purchasing Agent, Travis Annex, 301 Jackson, Suite 201 Richmond, Texas 77469.
- 1.6 Addenda: No interpretation of the meaning of the drawings, specifications or other bid documents will be made to any bidder orally. All requests for such interpretations must be made in writing addressed to Jaime Kovar, Assistant Purchasing Agent, 301, Jackson, Suite 201, Richmond, Texas, 77469, E-mail: [Jaime.Kovar@fortbendcountytexas.gov](mailto:Jaime.Kovar@fortbendcountytexas.gov). Any and all interpretations and any supplemental instructions will be in the form of written addenda to the contract documents which will be posted on Fort Bend County's website. Addenda will **ONLY** be issued by the Fort Bend County Purchasing Agent. It is the sole responsibility of each bidder to insure receipt of any and all addenda. All addenda issued will become part of the contract documents. Bidders must sign and include it in the returned bid package. Deadline for submission of questions and/or clarification is no later than **Monday, August 6, 2018 at 3:00PM (central)** Requests received after the deadline will not be responded to due to the time constraints of this bid process.
- 1.7 References: All bidders must submit, **WITH BID**, at least three (3) references from clients for whom a project similar to that specified herein has been

successfully accomplished. References must include clients name, contact person and telephone number.

- 1.8 Bid Bond: All bidders must submit, **WITH BID**, a cashier's check or certified check for at least five percent (5%) of the total bid price, payable to the order of Fort Bend County, or a Bid Bond in the same amount issued by a surety, acceptable to Fort Bend County, authorized to do business in the State of Texas, as a guarantee that the Bidder will do the work described herein at the rates stated herein. Unsuccessful bidder's Cashier's Check or Certified Check will be returned only after a written request to do so have been received in the Office of the Fort Bend County Purchasing Agent.
- 1.9 Material Safety Data Sheets: Under the "Hazardous Communication Act", commonly known as the "Texas Right to Know Act", a bidder must provide to Fort Bend County and using departments, with each delivery, material safety data sheets, which are, applicable to hazardous substances defined in the Act. Bidders are obligated to maintain a current, updated file in the Fort Bend County Purchasing Department. Failure of the bidder to maintain such a file will be cause to reject any bid applying thereto.
- 1.10 Pricing: Prices for all goods and/or services shall be firm for the duration of this Contract and shall be stated on the bid sheet. Prices shall be all inclusive. No price changes, additions, or subsequent qualifications will be honored during the course of the Contract. All prices must be written in ink or typewritten. If there are any additional charges of any kind, other than those mentioned above, specified or unspecified, bidder **MUST** indicate the items required and attendant costs or forfeit the right to payment for such items.
- 1.11 Term Contracts: If the Contract is intended to cover a specific time period, said time will be given in the specifications under scope.
- 1.12 Recycled Materials: Fort Bend County encourages the use of products made of recycled materials and shall give preference in purchasing to products made of recycled materials if the products meet applicable specifications as to quantity and quality. Fort Bend County will be the sole judge in determining product preference application.
- 1.13 Evaluation: Evaluation shall be used as a determinant as to which bid items or services are the most efficient and/or most economical for Fort Bend County. It shall be based on all factors which have a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Fort Bend County Purchasing Department and recommendation to Fort Bend County Commissioners Court. Compliance with all bid requirements, delivery and needs of the using department are considerations in evaluating bids. Pricing is **NOT** the only criteria for making a recommendation. The Fort Bend County Purchasing Department reserves the right to contact any bidder, at any time, to clarify, verify

or request information with regard to any bid.

- 1.14 **Disqualification of Bidder:** Upon signing this bid document, a bidder offering to sell supplies, materials, services, or equipment to Fort Bend County certifies that the bidder has not violated the antitrust laws of this state codified in section 15.01, et seq., Business & Commerce Code, or the federal antitrust laws, and has not communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business. Any or all bids may be rejected if Fort Bend County believes that collusion exists among the bidders. Bids in which the prices are obviously unbalanced may be rejected. If multiple bids are submitted by a bidder and after the bids are opened, one of the bids is withdrawn, the result will be that all of the bids submitted by that bidder will be withdrawn; however, nothing herein prohibits a vendor from submitting multiple bids for different products or services.
- 1.15 **Awards:** Fort Bend County reserves the right to award this Contract on the basis of lowest and best bid in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one bidder, to reject any or all bids. In the event the lowest dollar bidder meeting specifications is not awarded a contract, the bidder may appear before the Commissioners Court and present evidence concerning its responsibility.
- 1.16 **Contract Obligation:** Fort Bend County Commissioners Court must award the Contract and the County Judge or other person authorized by the Fort Bend County Commissioners Court must sign the Contract before it becomes binding on Fort Bend County or the bidders. Department heads are not authorized to sign agreements for Fort Bend County. Binding agreements shall remain in effect until all products and/or services covered by this purchase have been satisfactorily delivered and accepted.

## **2.0 SCOPE:**

It is the intent of Fort Bend County to contract with one (1) vendor for all materials, supplies, equipment, tools, services, labor and supervision necessary to provide and install water supply well at Harlem Park Sports Facilities, 701 Harlem Road, Richmond, Texas, hereinafter referred to as the "Project," as specified herein. Respondent is responsible for complying with any and all Texas Commission on Environmental Quality (TCEQ) rules and regulations.

## **3.0 PRE-BID CONFERENCE:**

A pre-bid conference will be conducted on **Tuesday, July 31, 2018 at 10:00AM** (central). The pre-bid conference will be held at the Fort Bend County Purchasing Department located in the Travis Annex at 301 Jackson, Suite 201, Richmond, Texas 77469. All bidders are encouraged to attend.

**4.0 LIQUIDATED DAMAGES:**

If the Project is not substantially complete within the contract time as adjusted by extension of time approved by Commissioner Court, Fort Bend County will deduct (from the final payment, as liquidated damages), the sum of five hundred (\$500.00) per calendar day that the Project remains not substantially complete, such sum is agreed upon as a reasonable and proper measure of damages which Fort Bend County will sustain per day by failure of Contractor to substantially complete work within the contract time. It is understood that said sum shall be considered as liquidated damages and shall in no sense be considered as a penalty against the Contractor.

**5.0 COMPLETION TIME AND PAYMENT:**

5.1 Fort Bend County shall pay the Contractor in current funds for the Contractor's performance of the Contract the contract sum, as stated herein, after receipt of notice to proceed and a purchase order issued by the Fort Bend County Purchasing Agent.

5.2 Based upon Applications for payment submitted to the Parks Department, Fort Bend County shall make progress payments on account of the contract sum to the Contractor as provided below and elsewhere in the contract documents.

5.2.1 The period covered by each application for payment shall be one calendar month ending on the last day of the month.

5.2.2 Provided an application for payment is received by the Parks Department not later than the 15th day of a month, Fort Bend County shall make payment to the Contractor not later than the 15th day of the next month. If an application for payment is received by the Parks Department after the application deadline fixed above, payment shall be made by Fort Bend County not later than 30 days after the Parks Department receives the application for payment.

5.2.3 Application for payment shall indicate the percentage of completion of each portion of the Project as of the end of the period covered by the application for payment.

5.2.4 Subject to the provisions of the contract documents, the amount of each progress payment shall be computed as follows:

5.2.4.1 Take that portion of the contract sum properly allocable to completed Project less retainage of ten percent (10%).

5.2.4.2 Add that portion of the contract sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved by Fort Bend County, suitably stored off the site at a

location agreed upon in writing), less retainage of ten percent (10%).

5.2.4.3 Subtract the aggregate of previous payments made by Fort Bend County.

5.2.4.4 The progress payment amount as determined in above shall be further modified under the following circumstances:

Add, upon substantial completion of the Project, a sum sufficient to increase the total payments to one hundred percent (100%) of the contract sum, less such amounts as Fort Bend County shall determine for incomplete work and unsettled claims.

5.2.4.5 Final payment, constituting the entire unpaid balance of the contract sum, shall be made by Fort Bend County to the Contractor when the Contract has been fully performed by the Contractor.

5.3 Before the first application for payment, the Contractor shall submit to the Parks Department a schedule of values allocated to various portions of the work, prepared in such form and supported by such data to substantiate its accuracy as the Parks Department may require. This schedule, unless objected to by the Parks Department shall be used as a basis for reviewing the Contractor's application for payment.

5.4 Contractor must provide with each application for payment a contractor's affidavit certifying bills against the Contractor for labor, material and expendable equipment employed in the performance of Contractor have been paid in full prior to acceptance of final payment from Fort Bend County.

5.5 The Contractor will permit Fort Bend County, or any duly authorized agent of Fort Bend County, to inspect and examine the books and records of the Contractor for the purpose of verifying the amount of work performed under the Contract. Fort Bend County's right to inspect survives the termination of the Contract for a period of five years.

## **6.0 LIMIT OF APPROPRIATION:**

Prior to the execution of this Contract, Contractor has been advised by County, and Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence to this Contract, that County shall have available only those funds specifically allocated in this Contract to fully discharge any and all liabilities which may be incurred by County in bringing this Project to an absolute conclusion, resulting in a complete, fully furnished, fully equipped and fully usable facility, and that the total of any and all basic construction costs, costs of providing the required furnishing and equipment, all fees and compensation of any sort to the Contractor,

and any and all costs for any and all things or purposes enuring under or out of this Contract, irrespective of the nature thereof, shall not exceed said specifically allocated sum, notwithstanding any word, statement or thing contained in or inferred from the preceding provision of this Contract which might in any light by any person be interpreted to the contrary.

**7.0 RIGHT TO ASSURANCE:**

Whenever Fort Bend County in good faith has reason to question the Contractor's intent to perform, Fort Bend County may demand that the Contractor give written assurance of its intent to perform. In the event that a demand is made and no assurance is given within five (5) days, Fort Bend County may treat this failure as an anticipatory repudiation of the Contract.

**8.0 PERFORMANCE AND PAYMENT BONDS:**

Performance and Payment Bonds: In the event the total accepted bid price exceeds \$25,000 the Contractor must provide to the Office of the County Purchasing Agent, a performance bond and a payment bond, each in the amount of 100% of the total contract sum within ten (10) calendar days after receipt of notification of bid award. Such bonds shall be executed by a corporate surety duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue surety bonds with a Best Rating of "A" or better. Fort Bend County reserves the right to accept or reject any surety company proposed by the Contractor. In the event Fort Bend County rejects, the proposed surety company, the Contractor will be afforded five (5) additional days to submit the required bonds issued by a surety company acceptable to Fort Bend County.

**9.0 POWER OF ATTORNEY:**

An attorney-in-fact who signs a bid bond, performance bond or payment bond must file with each bond a certified and effectively dated copy of his or her power of attorney.

**10.0 INSURANCE:**

10.1 All respondents must submit, with response, a current certificate of insurance indicating coverage in the amounts stated below. In lieu of submitting a certificate of insurance, respondents may submit, with response, a notarized statement from an Insurance company, authorized to conduct business in the State of Texas, and acceptable to Fort Bend County, guaranteeing the issuance of an insurance policy, with the coverage stated below, to the firm named therein, if successful, upon award of this Contract. Failure to provide current insurance certificate or notarized statement will result in disqualification of submittal.

10.2 At contract execution, contractor shall furnish County with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days prior written notice to County. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor shall maintain such insurance



coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

- 10.2.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
- 10.2.2 Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
- 10.2.3 Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
- 10.2.4 Business Automobile Liability coverage with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.
- 10.3 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if required). All Liability policies including Workers' Compensation written on behalf of contractor, excluding Professional Liability, shall contain a waiver of subrogation in favor of County and members of Commissioners Court.
- 10.4 If required coverage is written on a claims-made basis, contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning from the time that work under the agreement is completed.
- 10.5 Contractor shall not commence any portion of the work under this Contract until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by Fort Bend County.
- 10.6 No cancellation of or changes to the certificates, or the policies, may be made without sixty (60) days prior, written notification to Fort Bend County.

- 10.7 Approval of the insurance by Fort Bend County shall not relieve or decrease the liability of the Contractor.

**11.0 INDEMNIFICATION:**

Respondent shall save harmless County from and against all claims, liability, and expenses, including reasonable attorney's fees, arising from activities of respondent, its agents, servants or employees, performed under this agreement that result from the negligent act, error, or omission of respondent or any of respondent's agents, servants or employees.

- 11.1 Respondent shall timely report all such matters to Fort Bend County and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month; provide Fort Bend County with a written report on each such matter, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of Fort Bend County required by Respondent in the defense of each matter.
- 11.2 Respondent's duty to defend, indemnify and hold Fort Bend County harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of any contract unless otherwise agreed by Fort Bend County in writing. The provisions of this section shall survive the termination of the contract and shall remain in full force and effect with respect to all such matters no matter when they arise.
- 11.3 In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Respondent, Respondent shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Respondent are not at issue in the matter.
- 11.4 Respondent's indemnification shall cover, and Respondent agrees to indemnify Fort Bend County, in the event Fort Bend County is found to have been negligent for having selected Respondent to perform the work described in this request.
- 11.5 The provision by Respondent of insurance shall not limit the liability of Respondent under an agreement.
- 11.6 Respondent shall cause all trade contractors and any other contractor who may have a contract to perform construction or installation work in the area where work will be performed under this request, to agree to indemnify Fort Bend County and to hold it harmless from all claims for bodily injury and property damage that may arise from said Respondent's operations. Such provisions shall be in form satisfactory to Fort Bend County.

11.7 Loss Deduction Clause - Fort Bend County shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Respondent and/or trade contractor providing such insurance.

**12.0 PREVAILING WAGES:**

This project is subject to the prevailing wage rate requirements of Chapter 2258 of the Government Code. The Contractor shall pay Fort Bend County sixty dollars (\$60.00) for each worker employed by the Contractor for the provision of services described herein for each calendar day or part of the day that the worker is paid less than the below stated rates. Contractors may also visit [www.wdol.gov/dba.aspx](http://www.wdol.gov/dba.aspx).

General Decision Number: TX180080 01/05/2018 TX80  
Superseded General Decision Number: TX20170080

State: Texas  
Construction Type: Heavy  
County: Fort Bend County in Texas.

**HEAVY CONSTRUCTION PROJECTS Including Water and Sewer Lines (Does Not Include Flood Control)**

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number    Publication Date  
   0    01/05/2018

\* SFTX0669-001 04/01/2017

|                                    | Rates    | Fringes |
|------------------------------------|----------|---------|
| SPRINKLER FITTER (Fire Sprinklers) | \$ 29.03 | 15.84   |
| SUTX2005-020 06/14/2005            |          |         |

|                                |          |      |
|--------------------------------|----------|------|
| CARPENTER                      | \$ 14.38 | 0.00 |
| CEMENT MASON/CONCRETE FINISHER | \$ 11.37 | 1.13 |
| ELECTRICIAN                    | \$ 18.40 | 1.34 |
| Formbuilder/Formsetter         | \$ 13.35 | 1.17 |
| IRONWORKER, REINFORCING        | \$ 11.29 | 0.00 |
| Laborers:                      |          |      |
| Common                         | \$ 8.95  | 0.00 |
| Landscape                      | \$ 7.35  | 0.00 |
| Mason Tender Cement            | \$ 9.96  | 0.00 |
| Pipelayer                      | \$ 10.31 | 0.91 |
| PIPEFITTER                     | \$ 17.00 | 0.04 |
| POWER EQUIPMENT OPERATOR:      |          |      |
| Backhoe                        | \$ 12.08 | 0.00 |
| Bulldozer                      | \$ 10.44 | 0.00 |
| Crane                          | \$ 12.67 | 0.45 |
| Excavator                      | \$ 16.74 | 0.00 |
| Front End Loader               | \$ 10.68 | 1.42 |
| Grader                         | \$ 12.20 | 1.48 |
| Tractor                        | \$ 12.38 | 1.51 |
| TRUCK DRIVER                   | \$ 12.28 | 0.98 |

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

**13.0 PERMITS:**

It shall be the sole responsibility of the successful bidder to obtain all required permits in the name of Fort Bend County.

**14.0 CONTRACTOR'S RESPONSIBILITY FOR WORK:**

14.1 Preconstruction Work. Contractor shall do (or cause to be done) the following as preconstruction work:

14.1.1 On an as needed basis as determined by Fort Bend County, cause the Contractor's personnel to meet with Fort Bend County and the Engineer to discuss the status of the Project.

14.1.2 Review drawings and specifications with the Engineer to permit the Contractor and the Engineer to determine the compliance of the proposed facility with applicable building codes.

14.2 Construction Work. Contractor shall do (or cause to be done) the following as construction work:

14.2.1 Perform (or cause to be performed) all preparatory work at the construction site required herein, including (without limitation) soil and concrete testing and demolition of improvements existing at the construction site and all actions necessary for compliance with all laws and regulations as to actions to be taken by owners or contractors before construction begins, including without limitation those in regard to archaeological and environmental requirements.

14.2.2 Construct and install (or cause to be constructed and installed) the Project on the construction site in accordance with this Contract and the drawings and specifications approved by Fort Bend County.

14.2.3 Furnish (or cause to be furnished) all materials, supplies, equipment, tools, labor, supervision, utilities, transportation, and other materials and services necessary to complete the Project described herein.

14.2.4 Materials testing necessary for the Project and required by laws and regulations, construction industry standards as approved by Fort Bend County and this Contract; the frequency of testing shall be approved by Fort Bend County. **It is the contractor's responsibility to engage a material testing laboratory to perform testing on the structural concrete to be used for foundation work in this project. The cost of testing shall be incidental to bid item for drill shaft foundation. Testing of concrete shall comply with current TXDOT criteria.**

**Contractor has to submit the name of the testing laboratory, intended to be used by the contractor for this project, for County's approval.**

14.3 Standards for Review and Approval.

14.3.1 Fort Bend County acknowledges that in order to meet the deadlines for the completion of the Project, and in order to accomplish the efficient completion of the Project, the Contractor may submit matters to Fort Bend County in stages for approval or consent. Upon receipt of any matter submitted by the Contractor for review and approval, Fort Bend County shall review the same and shall diligently and promptly (but in any event within 14 calendar days for any such matter, other than a proposed change order, and within 28 calendar days for a proposed change order) give the Contractor notice of Fort Bend County's approval or disapproval, setting forth in detail all reasons for any disapproval. Fort Bend County's right to disapprove any such matter submitted (other than a proposed change order) shall be limited to the elements thereof (a) which do not conform substantially to matters previously approved, (b) which are new elements not previously presented and approved and the Contractor is unable to demonstrate that such new element is reasonably necessary for completion of the Project, or (c) which depict matters that are violations of this Contract or applicable laws and regulations.

14.3.2 If Fort Bend County disapproves of a particular matter or Proposed Change Order, the Contractor shall have the right to resubmit such matter or Proposed Change Order to Fort Bend County, altered to satisfy Fort Bend County's basis for disapproval. Any resubmission shall be subject to review and approval by Fort Bend County.

14.3.3 Fort Bend County and the Contractor shall attempt in good faith to resolve any disputes concerning the approval of any aspect of the Project expeditiously, so as not to delay the completion of the Project in accordance with this Contract.

14.3.4 Expedited Approvals. Fort Bend County recognizes the importance of expeditious action upon all matters submitted to Fort Bend County for review and approval and of expeditious response to those aspects of the Project requiring approval by governmental authorities having jurisdiction there over. Fort Bend County agrees to exercise its rights of review and approval hereunder with due diligence, reasonableness, and good faith. Fort Bend County shall use its reasonable efforts to expedite any required review of the Project or other matters by any governmental authority.

14.4 Changes.

14.4.1 General. Fort Bend County may make changes to the Project by altering, adding to, or deducting from the Project. All changes in the Project which



(a) require an adjustment in the contract sum or an adjustment in the final completion date or (b) involve a material change in the overall scope or function of the Project shall be requested and authorized before commencing such changes by use of written change order notices, Proposed Change Orders and Change Orders, which change order procedure shall be the exclusive means to effect such changes in the Project.

- 14.4.2 Change Order Procedure. If at any time Fort Bend County desires to make any change in the Project requiring the issuance of a Change Order, Fort Bend County shall so advise the Contractor in writing by delivery to the Contractor of a written notice describing the change. Upon receipt of such notice initiated by Fort Bend County, the Contractor shall within a reasonable period of time advise Fort Bend County of the Contractor's proposal for the adjustments, if any, in the contract sum, the schedule of values, and the final completion date attributable to such change by delivering a written notice thereof (the "Proposed Change Order") to Fort Bend County. Such Proposed Change Order shall contain a description of the proposed change and shall set forth the Contractor's estimate of the increase or decrease, if any, in the contract sum and the change, if any, in the schedule of values and the final completion date attributable to such change. If the Contractor desires to make a change in the Project requiring the issuance of a change order, the Contractor shall deliver to Fort Bend County a Proposed Change Order. Upon execution by Fort Bend County, a Proposed Change Order shall constitute (and be defined herein as) a "Change Order" for purposes of this Contract. The Contractor shall forthwith perform the work as changed in accordance with such Change Order. All work performed pursuant to a Change Order shall be performed in accordance with the terms of this Contract. All Proposed Change Orders shall be submitted for approval by Fort Bend County. No action, acquiescence or inaction by Fort Bend County or any representative of Fort Bend County shall be construed to be a waiver of requirements set forth in this Contract in regard to Change Orders or ratification of a violation of such requirements, and all acts in violation of this provision shall be considered void.
- 14.4.3 Change Order Authorization. Each Change Order shall be signed by Fort Bend County and an authorized representative of the Contractor.
- 14.4.4 Contract Sum Adjustments. The contract sum and the schedule of values shall be adjusted only as a result of a Change Order requiring such adjustment. Any extra work performed without a proper Change Order shall be considered voluntary and not subject to additional compensation. The Contractor shall not be entitled to an adjustment in the contract sum (or a Change Order permitting such adjustment) or to damages as a result of any delays in the Project caused by the acts or omissions of Fort Bend County, provided that this sentence is not applicable to delays that

constitute more than 90 days in any 365-day period or cause the Project to be interrupted for a continuous period of 45 days through no fault of the Contractor.

- 14.4.5 When Fort Bend County and the Contractor agree upon the adjustments in the contract sum, the schedule of values, and the final completion date attributable to such adjustment, such agreement will be documented by preparation and if approved by the Fort Bend County Commissioners Court, execution of an appropriate Change Order.
- 14.5 Site Access. Prior to the transfer date, Fort Bend County and the Contractor shall have uninterrupted access to the construction site. Subsequent to the transfer date, Fort Bend County will permit the Contractor, the Engineer, and their representatives and subcontractors to enter upon the Project at times reasonably necessary to complete the punch list items.
- 14.6 Applicable Laws and Regulations. Contractor shall in its performance of the Project comply with all applicable laws and regulations. Any delays in the prosecution of the Project caused by any changes in the laws and regulations or the application or enforcement of the laws and regulations may entitle the Contractor to an extension of time.
- 14.7 Familiarity with Project. The Contractor represents and accepts that it has: (a) visited the property(ies), (b) taken such other steps as may be necessary to ascertain the nature and location of the Project and the general and local conditions which affect the Project or the cost thereof, (c) investigated the labor situation as regards to the Project, (d) examined the property(ies), the obstacles which may be encountered and all other observable conditions having a bearing upon the performance of the Project, the superintendence of the Project, the time of completion and all other relevant matters, and (e) reported to Fort Bend County the results of all of the foregoing. The Contractor represents that it is familiar with all phases of the Project and the matters that may affect the Project or its prosecution under this Contract.
- 14.8 Standard of Performance. The Contractor shall prosecute (or cause to be prosecuted) the Project in accordance with the best efforts for the construction and development of projects similar to the Project in the State of Texas, using qualified, careful, and efficient contractors and workers and in conformity with the provisions of this Contract. The Contractor shall perform the work in a good and workmanlike manner.
- 14.9 Warranty of Contractor. The Contractor warrants to Fort Bend County that: (i) the Contractor possesses the skill and knowledge ordinarily possessed by well-informed members of its trade or profession and the Contractor will use its best efforts to ensure that the services provided under this Contract will be performed, delivered, and conducted in accordance with the best professional standards and

in accordance with industry standards, and (ii) the Contractor is fully experienced and properly qualified to perform the class of work provided for herein, and that it is properly equipped, organized and financed to perform such work, and (iii) following the date of acceptance of this Contract, the services provided by the Contractor to Fort Bend County will conform to the representations contained in this Contract, including all attachments, schedules and exhibits. All warranties provided by the Contractor in this Contract shall be cumulative, shall be deemed consistent and not in conflict, are intended to be given full force and effect and to be interpreted expansively to give the broadest warranty protection to Fort Bend County.

- 14.10 Contractor's Personnel. Contractor shall employ only competent, skilled personnel for the Project. Prior to the final completion date, the Contractor shall maintain a superintendent who shall be authorized to act on behalf of the Contractor and with whom Fort Bend County may consult at all reasonable times. The superintendent shall not be transferred from the Project without Fort Bend County's consent (which shall not be unreasonably withheld or delayed); provided, however, the superintendent shall not be assigned solely to the Project and shall be entitled to spend reasonable time working on matters unrelated to the Project so long as such work on other matters does not render the superintendent unavailable to the Project or unavailable to Fort Bend County. However, such obligation to furnish the superintendent and such staff personnel shall not be construed (a) to preclude the promotion within the Contractor's organization of any person assigned to the Project or (b) to give rise to any liability of the Contractor if any person assigned to the Project (including, without limitation, the superintendent) leaves the Contractor's employment. If the superintendent is transferred from the Project, Fort Bend County shall have the right to approve the replacement superintendent (which approval will not be unreasonably withheld or delayed). The Contractor, the Architect, and the other subcontractors shall comply with all applicable health, safety, and loss prevention rules of applicable governmental authorities. The Contractor shall, at its own expense, remove from the Project any person who fails to comply with such rules and instructions. The Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ on the Project any unfit person or anyone not skilled in the work assigned to him. Fort Bend County may, upon written notice to the Contractor, require the Contractor to remove an individual immediately from providing services for the following reasons: violation of the terms and conditions of this Contract; violation of Fort Bend County's or the Contractor's work rules and regulations; criminal activity; or violation of state, federal, or municipal statutes. Fort Bend County may, upon thirty (30) days written notice to the Contractor, require the removal of any individual from providing services without cause.
- 14.11 Inspection. The Project and all parts thereof shall be subject to inspection from time to time by inspectors designated by Fort Bend County. No such inspections shall relieve The Contractor of any of its obligations hereunder. Neither failure to inspect nor failure to discover or reject any of the work as not in accordance with

the drawings and specifications or any provision of this Contract shall be construed to imply an acceptance of such work or to relieve the Contractor of any of its obligations hereunder. Fort Bend County agrees that its right of inspection shall be used reasonably and in a timely manner so as not to delay orderly completion of the Project.

- 14.12 Protection Against Risks. The Contractor shall take all precautions which are necessary and adequate, against conditions created during the progress of the Project which involve a risk of bodily harm to persons or a risk of damage or loss to any property. The Contractor shall regularly inspect all work, materials and equipment to discover and determine any such conditions and shall be responsible for discovery, determination, and correction of any such conditions. The Contractor shall comply with all federal, state, and local occupational hazard and safety standards, codes and regulations applicable in the jurisdiction where the Project is being performed. The Contractor shall include the substance of this clause in its entirety in all subcontracts for any work to be performed at the construction site.
- 14.13 Equipment. Except as expressly provided herein to the contrary, the Contractor shall furnish (or cause to be furnished) all construction, transportation, installation, tools, and other equipment and facilities required for the performance of the Project within the times specified herein. Such equipment and facilities shall be serviceable and kept fit for the uses intended. Defective items shall be removed from the construction site promptly and at the Contractor's cost. The Contractor shall schedule (or cause to be scheduled) its other operations so as to not interfere with its duty to timely furnish the necessary equipment and facilities and personnel to operate the same at the times necessary for the orderly completion of the Project.
- 14.14 Materials. Except as may be specifically provided otherwise in the Contract or approved in advance by Fort Bend County, the Contractor shall provide Fort Bend County with copies of material testing reports and to cause all materials, equipment, and fabricated items incorporated in the Project to be new and of a suitable grade of their respective kinds for their intended use.

## **15.0 TERMINATION:**

- 15.1 Fort Bend County may terminate the Contract if the Contractor:
- 15.1.1 Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials.
- 15.1.2 Fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractor.

- 15.1.3 Persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction.
- 15.1.4 Otherwise is guilty of substantial breach of a provision of the Contract Documents.
- 15.2 When any of the above reasons exists, Fort Bend County may, without prejudice to any other rights or remedies of Fort Bend County and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:
  - 15.2.1 Take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor.
  - 15.2.2 Finish the Project by whatever reasonable method Fort Bend County may deem expedient.
- 15.3 Either party may terminate this Contract at any time by providing thirty (30) days written notice.
- 15.4 When Fort Bend County terminates the Contract for one of the reasons stated in this section, the Contractor shall not be entitled to receive further payment until the Project is finished. Therefore, the Contractor shall be promptly paid for all work actually and satisfactorily completed.

**16.0 COMPLETION, TRANSFER, AND ACCEPTANCE:**

- 16.1 Final Completion. Upon the occurrence of the final completion date, the punch list items shall be promptly commenced and thereafter completed within thirty (30) days after final completion.
- 16.2 Transfer and Acceptance. Upon the occurrence of final completion, care, custody and control of the Project shall pass to Fort Bend County. As referenced herein, the "Transfer Date" shall mean the date on which the care, custody and control of the Project passes to Fort Bend County. Subsequent to the Transfer Date all risk of loss with respect to the Project shall be by Fort Bend County and the Contractor shall be thereafter obligated to cover the Project with their Insurance.

**17.0 SUSPENSION BY FORT BEND COUNTY FOR CONVENIENCE:**

- 17.1 Fort Bend County may, without cause, order the Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as Fort Bend County may determine.

- 17.2 An adjustment shall be made for increase in the cost of performance, caused by suspension, delay or interruption. No adjustment shall be made to the extent:
  - 17.2.1 That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible.
  - 17.2.2 That an equitable adjustment is made or denied under another provision of this Contract.
- 17.3 Adjustments made in the cost of performance may have a mutually agreed fixed or percentage fee.

**18.0 INDEPENDENT CONTRACTOR:**

The Contractor shall be an independent contractor and any provisions of this Contract that may appear to give Fort Bend County the right to direct the Contractor as to the details of the manner of doing the Project shall be deemed to mean that the Contractor shall follow the desires of Fort Bend County in the results of the Project only and not in the means whereby the Project is to be accomplished. The Contractor shall be responsible as to the details of completing the Project. Neither the agents, representatives, nor employees of the Contractor, shall be deemed to be the agents, representatives, or employees of Fort Bend County. The Contractor further represents that it accepts a fiduciary role and responsibility with respect to Fort Bend County and will, to its best abilities, act in the best interests of Fort Bend County and the timely completion of the Project. The Contractor agrees and understands that neither it nor any of its agents or employees may act in the name of Fort Bend County except and unless specifically authorized in writing by Fort Bend County to do so. The Contractor shall furnish construction administration and management services and use the Contractor's best efforts to complete the Project in an expeditious and economical manner consistent with the interests of Fort Bend County.

**19.0 NOTICE**

- 19.1 All written notices, demands, and other papers or documents to be delivered to Fort Bend County under this Contract shall be delivered to the Parks Department, 301 Jackson, Richmond, Texas 77469, or at such other place or places as Fort Bend County may from time to time designate by written notice delivered to the Contractor. For purposes of notice under this Contract, a copy of any notice or communication hereunder shall also be forwarded to the following address: Fort Bend County, 301 Jackson Street, Suite 719, Richmond, Texas 77469, Attention: County Judge.
- 19.2 All written notices, demands, and other papers or documents to be delivered to the Contractor under this Contract shall be delivered to the Authorized Representative identified in the Contract documents or such other place or places as the Contractor may designate by written notice delivered to Fort Bend County.

**20.0 RECORDS:**

- 20.1 Fort Bend County shall be the absolute and unqualified owner of all drawings, preliminary layouts, record drawings, sketches and other documents prepared pursuant to the Contract by Contractor.
- 20.2 The Contractor agrees to maintain and preserve for a period of at least five years after the earlier of the expiration of the defects period or termination of this Contract, accurate and complete records relating to the performance of the Project. The Contractor agrees to, upon request, provide Fort Bend County with such records.

**21.0 SUCCESSORS AND ASSIGNS:**

- 21.1 Fort Bend County and the Contractor bind themselves and their successors, executors, administrators and assigns to the other party of this Contract and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Contract.
- 21.2 Neither Fort Bend County nor the Contractor shall assign, sublet or transfer its interest in this Contract without the prior written consent of the other.
- 21.3 Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public and/or governmental body that may be a party hereto.

**22.0 PUBLIC CONTACT:**

Contact with the news media, citizens of Fort Bend County or governmental agencies shall be the sole responsibility of Fort Bend County. Under no circumstances, whatsoever, shall Contractor release any material or information developed in the performance of its services hereunder without the express written permission of Fort Bend County, except where required to do so by law.

**23.0 MODIFICATIONS:**

This instrument contains the entire Contract between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications concerning this instrument shall be of no force and effect excepting a subsequent written modification signed by both parties hereto.

**24.0 SILENCE OF SPECIFICATIONS:**

The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement.

The items furnished under this contract shall be new, unused of the latest product in production to commercial trade and shall be of the highest quality as to materials used and workmanship. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item bid.

**25.0 SEVERABILITY:**

In the event one or more of the provisions contained in these requirements or the specifications shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision hereof and these requirements or the specifications shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

**26.0 GOVERNING FORMS:**

In the event of any conflict between the terms and provisions of these requirements and the specifications, the specifications shall govern. In the event of any conflict of interpretation of any part of this overall document, Fort Bend County's interpretation shall govern.

**27.0 TAX EXEMPT:**

Fort Bend County is exempt from state and local sales and use taxes under Section 151.309 of the Texas Tax Code. This Contract is deemed to be a separate contract for Texas tax purposes, and as such, Fort Bend County hereby issues its Texas Exemption for the purchase of any items qualifying for exemption under this Contract. Contractor is to issue its Texas Resale Certificate to vendors and subcontractors for such items qualifying for this exemption, and further, contractor should state these items at cost.

**28.0 ENTIRE AGREEMENT:**

The Parties agree that this Contract contains all of the terms and conditions of the understanding of the parties relating to the subject matter hereof. All prior negotiations, discussions, correspondence and preliminary understandings between the parties and others relating hereto are superseded by this Contract. By entering into this Contract, the parties do not intend to create any obligations, express or implied, other than those specifically set out in this Contract.

**29.0 APPLICABLE LAW AND VENUE**

This Contract shall be construed under and in accord with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Fort Bend County, Texas, and that venue for any litigation arising out of or related to this Contract shall lie solely in the court of appropriate jurisdiction located in Fort Bend County, Texas.



**30.0 ENCLOSURE:**

The following being incorporated herein by reference for all purposes as though fully set forth herein word for word.

30.1 Enclosure #1 - Specifications and Plans

30.2 Enclosure #2 - Geotechnical Report

**31.0 PRICING:**

31.1 Construction of Water Supply Well: \$ \_\_\_\_\_

**32.0 PROJECT DURATION:**

Bidder agrees, if awarded the contract, to complete all work required by the contract documents **within** \_\_\_\_\_ **calendar days** after issuance of a purchase order by the County Purchasing Agent and notice to proceed by the Parks Department.

**33.0 AWARD:**

This contract will be awarded to the lowest and best bid.

**34.0 TEXAS ETHICS COMMISSION FORM 1295:**

34.1 Effective January 1, 2016 all contracts executed by Commissioners Court, regardless of the dollar amount, will require completion of Form 1295 "Certificate of Interested Parties", per the new Government Code Statute §2252.908. All vendors submitting a response to a formal Bid, RFP, SOQ or any contracts, contract amendments, renewals or change orders are required to complete the Form 1295 online through the State of Texas Ethics Commission website. Please visit:

[https://www.ethics.state.tx.us/whatsnew/elf\\_info\\_form1295.htm](https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm).

34.2 On-line instructions:

34.2.1 Name of governmental entity is to read Fort Bend County

34.2.2 Identification number used by the governmental entity is: B18-090

34.2.3 Description is the title of the solicitation: Construction of Water Supply Well at Harlem Park Sports Facilities

34.3 Apparent low bidder(s) will be required to provide the Form 1295 within three (3) calendar days from notification; however, if your company is publicly traded you are not required to complete this form.

**35.0 STATE LAW REQUIREMENTS FOR CONTRACTS:**

The contents of this section are required by Texas Law and are included by County regardless of content.

- 35.1 Agreement to Not Boycott Israel Chapter 2270 Texas Government Code: By signature on vendor form, Contractor verifies Contractor does not boycott Israel and will not boycott Israel during the term of this Contract.
- 35.2 Texas Government Code Section 2251.152 Acknowledgment: By signature on vendor form, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

**36.0 ADDITIONAL REQUIRED FORMS:**

All vendors submitting are required to complete the attached and return with submission:

- 36.1 Required Proof of Insurance
- 36.2 Vendor Form
- 36.3 W9 Form
- 36.4 Tax Form/Debt/Residence Certification
- 36.5 Contractor Acknowledgement of Stormwater Management Program

**Contract Sheet  
Bid 18-090**

**THE STATE OF TEXAS  
COUNTY OF FORT BEND**

This memorandum of agreement made and entered into on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between Fort Bend County in the State of Texas (hereinafter designated County), acting herein by County Judge Robert Hebert, by virtue of an order of Fort Bend County Commissioners Court, and \_\_\_\_\_  
**(company name)**  
(hereinafter designated Contractor).

WITNESSETH:

The Contractor and the County agree that the bid and specifications for the **Construction of Water Supply Well at Harlem Park Sports Facilities** which are hereto attached and made a part hereof, together with this instrument and the bond (when required) shall constitute the full agreement and contract between parties and for furnishing the items set out and described; the County agrees to pay the prices stipulated in the accepted bid.

It is further agreed that this contract shall not become binding or effective until signed by the parties hereto and a purchase order authorizing the items desired has been issued.

Executed at Richmond, Texas this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Fort Bend County, Texas

By: \_\_\_\_\_  
County Judge, **Robert Hebert**

By: \_\_\_\_\_  
**Signature of Contractor**

By: \_\_\_\_\_  
**Printed Name and Title**

# Request for Taxpayer Identification Number and Certification

**Give Form to the  
 requester. Do not  
 send to the IRS.**

|   |  |  |
|---|--|--|
| <b>Print or type<br/>See Specific<br/>Instructions on page 2.</b> | <b>1</b> Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.   |  |
|   | <b>2</b> Business name/disregarded entity name, if different from above  |  |
|   | <b>3</b> Check appropriate box for federal tax classification; check only <b>one</b> of the following seven boxes:<br><input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate<br><input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____<br><b>Note.</b> For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.<br><input type="checkbox"/> Other (see instructions) ▶ _____ | <b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):<br>Exempt payee code (if any) _____<br>Exemption from FATCA reporting code (if any) _____<br><i>(Applies to accounts maintained outside the U.S.)</i> |
|   | <b>5</b> Address (number, street, and apt. or suite no.)   | Requester's name and address (optional)  |
|   | <b>6</b> City, state, and ZIP code   |  |
|   | <b>7</b> List account number(s) here (optional)  |  |

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

|                                       |  |  |  |   |  |  |   |  |  |
|---------------------------------------|--|--|--|---|--|--|---|--|--|
| <b>Social security number</b>         |  |  |  |   |  |  |   |  |  |
|                                       |  |  |  | - |  |  | - |  |  |
| <b>or</b>                             |  |  |  |   |  |  |   |  |  |
| <b>Employer identification number</b> |  |  |  |   |  |  |   |  |  |
|                                       |  |  |  | - |  |  |   |  |  |

**Note.** If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

|                  |                            |        |
|------------------|----------------------------|--------|
| <b>Sign Here</b> | Signature of U.S. person ▶ | Date ▶ |
|------------------|----------------------------|--------|

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at [www.irs.gov/fw9](http://www.irs.gov/fw9).

### Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.*

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

**Note.** If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

**Foreign person.** If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

**Example.** Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

## Backup Withholding

**What is backup withholding?** Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

**Payments you receive will be subject to backup withholding if:**

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

## What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

## Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

## Penalties

**Failure to furnish TIN.** If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

**Civil penalty for false information with respect to withholding.** If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

**Criminal penalty for falsifying information.** Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

**Misuse of TINs.** If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

## Specific Instructions

### Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

**Note. ITIN applicant:** Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

**Line 2**

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

**Line 3**

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

**Limited Liability Company (LLC).** If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

**Line 4, Exemptions**

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

**Exempt payee code.**

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

| IF the payment is for . . .  | THEN the payment is exempt for . . .  |
|--|---|
| Interest and dividend payments   | All exempt payees except for 7  |
| Broker transactions  | Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012. |
| Barter exchange transactions and patronage dividends                                   | Exempt payees 1 through 4   |
| Payments over \$600 required to be reported and direct sales over \$5,000 <sup>1</sup> | Generally, exempt payees 1 through 5 <sup>2</sup>   |
| Payments made in settlement of payment card or third party network transactions        | Exempt payees 1 through 4   |

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

**Exemption from FATCA reporting code.** The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

**Note.** You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

**Line 5**

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

**Line 6**

Enter your city, state, and ZIP code.

**Part I. Taxpayer Identification Number (TIN)**

**Enter your TIN in the appropriate box.** If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

**Note.** See the chart on page 4 for further clarification of name and TIN combinations.

**How to get a TIN.** If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at [www.ssa.gov](http://www.ssa.gov). You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at [www.irs.gov/businesses](http://www.irs.gov/businesses) and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting [IRS.gov](http://IRS.gov) or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

**Note.** Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

**Caution:** A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

## Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

**Signature requirements.** Complete the certification as indicated in items 1 through 5 below.

**1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

**2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

**3. Real estate transactions.** You must sign the certification. You may cross out item 2 of the certification.

**4. Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

**5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions.** You must give your correct TIN, but you do not have to sign the certification.

## What Name and Number To Give the Requester

| For this type of account:   | Give name and SSN of:   |
|---|---|
| 1. Individual   | The individual  |
| 2. Two or more individuals (joint account)  | The actual owner of the account or, if combined funds, the first individual on the account <sup>1</sup> |
| 3. Custodian account of a minor (Uniform Gift to Minors Act)  | The minor <sup>2</sup>  |
| 4. a. The usual revocable savings trust (grantor is also trustee)<br>b. So-called trust account that is not a legal or valid trust under state law  | The grantor-trustee <sup>1</sup><br><br>The actual owner <sup>1</sup>                                   |
| 5. Sole proprietorship or disregarded entity owned by an individual   | The owner <sup>3</sup>  |
| 6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))  | The grantor*  |
| For this type of account:   | Give name and EIN of:   |
| 7. Disregarded entity not owned by an individual  | The owner   |
| 8. A valid trust, estate, or pension trust  | Legal entity <sup>4</sup>   |
| 9. Corporation or LLC electing corporate status on Form 8832 or Form 2553   | The corporation   |
| 10. Association, club, religious, charitable, educational, or other tax-exempt organization   | The organization  |
| 11. Partnership or multi-member LLC   | The partnership   |
| 12. A broker or registered nominee  | The broker or nominee   |
| 13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments | The public entity   |
| 14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))  | The trust   |

<sup>1</sup> List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

<sup>4</sup> List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

\*Note. Grantor also must provide a Form W-9 to trustee of trust.

**Note.** If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

## Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

**Protect yourself from suspicious emails or phishing schemes.** Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to [phishing@irs.gov](mailto:phishing@irs.gov). You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: [spam@uce.gov](mailto:spam@uce.gov) or contact them at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 1-877-IDTHEFT (1-877-438-4338).

Visit [IRS.gov](http://IRS.gov) to learn more about identity theft and how to reduce your risk.

## Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

Job No.: \_\_\_\_\_

**TAX FORM/DEBT/ RESIDENCE CERTIFICATION**  
**(for Advertised Projects)**

Taxpayer Identification Number (T.I.N.): \_\_\_\_\_

Company Name submitting Bid/Proposal: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Are you registered to do business in the State of Texas?  Yes  No

If you are an individual, list the names and addresses of any partnership of which you are a general partner or any assumed name(s) under which you operate your business  
\_\_\_\_\_  
\_\_\_\_\_

I. **Property:** List all taxable property in Fort Bend County owned by you or above partnerships as well as any d/b/a names. Include real and personal property as well as mineral interest accounts. (Use a second sheet of paper if necessary.)

Fort Bend County Tax Acct. No.\*

Property address or location\*\*

| <u>Fort Bend County Tax Acct. No.*</u> | <u>Property address or location**</u> |
|--|---------------------------------------|
| _____                                  | _____                                 |
| _____                                  | _____                                 |
| _____                                  | _____                                 |
| _____                                  | _____                                 |

\* *This is the property account identification number assigned by the Fort Bend County Appraisal District.*

\*\* *For real property, specify the property address or legal description. For business personal property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored at a warehouse or other location.*

II. **Fort Bend County Debt** - Do you owe any debts to Fort Bend County (taxes on properties listed in I above, tickets, fines, tolls, court judgments, etc.)?

Yes  No

If yes, attach a separate page explaining the debt.

III. **Residence Certification** - Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Fort Bend County requests Residence Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

I certify that \_\_\_\_\_ is a Resident Bidder of Texas as defined in Government Code §2252.001.  
[Company Name]

I certify that \_\_\_\_\_ is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is \_\_\_\_\_.

[City and State]



**Mandatory Form**



**Contractor Acknowledgement of Stormwater Management Program**

I hereby acknowledge that I am aware of the stormwater management program and standard operating procedures developed by Fort Bend County in compliance with the TPDES General Permit No. TXR040000. I agree to comply with all applicable best management practices and standard operating procedures while conducting my services for Fort Bend County. I agree to conduct all services in a manner that does not introduce illicit discharges of pollutants to streets, stormwater inlets, drainage ditches or any portion of the drainage system. The following materials and/or pollutant sources must not be discharged to the drainage system as a result of any services provided:

1. Grass clippings, leaves, mulch, rocks, sand, dirt or other waste materials resulting from landscaping activities, (except those materials resulting from ditch mowing or maintenance activities)
2. Herbicides, pesticides and/or fertilizers, (except those intended for aquatic use)
3. Detergents, fuels, solvents, oils and/or lubricants, other equipment and/or vehicle fluids,
4. Other hazardous materials including paints, thinners, chemicals or related waste materials,
5. Uncontrolled dewatering discharges, equipment and/or vehicle wash waters,
6. Sanitary waste, trash, debris, or other waste products
7. Wastewater from wet saw machinery,
8. Other pollutants that degrade water quality or pose a threat to human health or the environment.

Furthermore, I agree to notify Fort Bend County immediately of any issue caused by or identified by:

\_\_\_\_\_  
(Company/Contractor)

that is believed to be an immediate threat to human health or the environment.

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Date

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

\_\_\_\_\_  
Title

Enclosure 1 - Plans and Specifications



March 6, 2018

Utilities Technical Review Team  
Water Supply Division MC-159  
P.O. Box 13087  
Austin, Texas 78711-3087

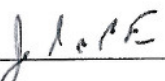
Re: Public Water Supply # Unassigned  
Harlem Park Sports Facilities

Sirs,

Enclosed please find the submittal items for "*Harlem Park Sports Facilities, PWS No. Unassigned*" located in Fort Bend County, Texas. Harlem Park Sports Facilities previously submitted plans for an exceptions approval and we received the approval letter on February 28, 2018. Harlem Park Sports Facilities is currently asking for permission to install a new water system to better serve Fort Bend County Public Park.

If you find anything deficient please contact me.

Sincerely,

  
\_\_\_\_\_  
Jerry G. Ince, P.E.  
Ward, Getz & Associates, LLP  
Firm #9756



3-6-18

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Stephanie Bergeron Perdue, *Interim Executive Director*



PWS\_0790579\_20180510\_Plan Ltr

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 10, 2018

Mr. Jerry G. Ince, P.E.  
Ward Getz & Associates, LLP  
2500 Tanglewilde, Ste. 120  
Houston, TX 77063

Re: Harlem Park Sports Facilities - Public Water System (PWS) ID No. 0790579  
Proposed Well and PWS  
Engineer Contact Telephone: (713) 352-7232  
Plan Review Log No. P-03122018-089  
Ft. Bend County, Texas

CN601229107; RN110374949

Dear Mr. Ince:

On March 12, 2018, the Texas Commission of Environmental Quality (TCEQ) received planning material for the proposed well and PWS. Based on our review, the project generally meets the minimum requirements of Title 30 Texas Administrative Code (TAC) Chapter 290 - Rules and Regulations for Public Water Systems and is **conditionally approved for construction** if the project meets the following requirement(s):

- The well location shall comply with Chapter 290.41(c)(1)(A-F) of the Rules with regard to separation distances from pollution hazards and the provision of a recorded sanitary control easement, deed or exception to same.
- Wellhead and vent shall comply with Chapter 290.41(c)(3)(K) of the Rules regarding location above 100-year flood elevation.
- Three corrosive indices (Langelier Saturation Index, Ryznar Stability Index and the Aggressive Index) will be used to calculate corrosivity of the water from new source(s). Corrosive or aggressive water could result in aesthetic problems, increased levels of toxic metals, and deterioration of household plumbing and fixtures. **If the water appears to be corrosive**, the system will be required to conduct a study and submit an engineering report that addresses corrosivity issues or may choose to install corrosion control treatment **before use may be granted**. All changes in treatment require submittal of plans and specifications for approval by TCEQ.

Texas Water Code Section 36.0015 allows for the creation of groundwater conservation districts (GCDs) as the preferred method of groundwater management. GCDs manage groundwater in many counties and are authorized to regulate production and spacing of water wells. **Public water systems drilling wells within an existing GCD are responsible for meeting the GCD's requirements**. The authorization provided in this letter does not affect GCD authority to manage groundwater or issue permits.

Mr. Jerry G. Ince, P.E.  
Page 2  
May 10, 2018

**The design engineer or water system representative is required to notify the Plan Review Team in writing by fax at (512) 239-6972 or by emailing [john.lock@tceq.texas.gov](mailto:john.lock@tceq.texas.gov) and cc: [vera.poe@tceq.texas.gov](mailto:vera.poe@tceq.texas.gov) at least 48 hours before the well casing pressure cementing begins.** If pressure cementing is to begin on Monday, then they must give notification on the preceding Thursday. If pressure cementing is to begin on Tuesday, then they must give notification on the preceding Friday.

**The TCEQ does not approve this well for use as a public water supply at this time.** We have enclosed a copy of the "Public Well Completion Data Checklist for Interim Approval (Step 2)". We provide this checklist to help you in obtaining approval to use this well.

The submittal consisted of 5 sheets of engineering drawings, technical specifications and an engineering summary. **The proposed project consists of:**

- One (1) public water supply well drilled to 380 feet with 360 linear feet (lf) of 5-inch id SDR17 polyvinyl chloride (PVC) casing, pressure-cemented 360 lf; 20 lf of 2.5-inch id slotted PVC screen. The well is rated for 15 gallons per minute (gpm) yield with a 2 horsepower submersible pump. Capacity and horsepower will be field verified.
- One 315 gallon steel pressure tank;
- Sodium hypochlorite disinfection;
- Intruder resistant fencing;
- Various lengths of 2-inch SCH40 PVC pipe.

This approval is for the construction of the above listed items only. Any wastewater components contained in this design were not considered.

The Harlem Park Sports Facilities public water system provides water treatment.

The project is located on Harlem Rd., just north US 90A, in Ft. Bend County.

An appointed engineer must notify the TCEQ's Region 12 Office in Houston (713) 767-3582 when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner will notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the completed work is substantially in accordance with the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).

Please refer to the Plan Review Team's Log No. P-03122018-089 in all correspondence for this project.

Please complete a copy of the most current Public Water System Plan Review Submittal form for any future submittals to TCEQ. Every blank on the form must be completed to minimize any delays in the review of your project. The document is available on TCEQ's website at the address shown below. You can also download the most current plan submittal checklists and forms from the same address.

<https://www.tceq.texas.gov/drinkingwater/udpubs.html>

Mr. Jerry G. Ince, P.E.  
Page 3  
May 10, 2018

For future reference, you can review part of the Plan Review Team's database to see if we have received your project. This is available on TCEQ's website at the following address:

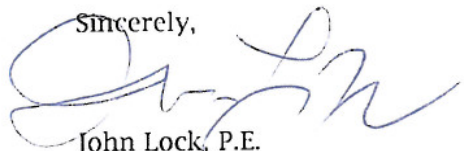
<https://www.tceq.texas.gov/drinkingwater/planrev.html/#status>

You can download the latest revision of 30 TAC Chapter 290 - Rules and Regulations for Public Water Systems from this site.

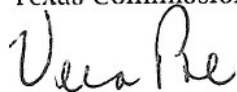
If you have any questions, please contact John Lock at (512)239-4710 or by email at john.lock@tceq.texas.gov or by correspondence at the following address:

Plan Review Team, MC-159  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Sincerely,



John Lock, P.E.  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality



Vera Poe, P.E., Team Leader  
Plan Review Team  
Plan and Technical Review Section  
Water Supply Division  
Texas Commission on Environmental Quality

VP/JL/db

Enclosure: "Public Well Completion Data Checklist for Interim Approval (Step 2)"

cc: Ft. Bend County, 312 Jackson St., Richmond, TX 77469

Mr. Jerry G. Ince, P.E.  
Page 4  
May 10, 2018

bcc: TCEQ Central Records PWS File 0790579 P-03122018-089  
TCEQ Region No. 12 Office - Houston  
TCEQ PWSINV, MC-155

- (v) Cementing depth and pressure method (one of the methods in latest revision of AWWA Standard A-100, Appendix C, excluding the dump bailer and tremie methods);
  - (vi) Driller's geologic log of strata penetrated during the drilling of the well;
  - (vii) Cementing certificate; and
  - (viii) Copy of the official State of Texas Well Report (some of the preceding data is included on the Well Report).
4.  A U.S. Geological Survey 7.5-minute topographic quadrangle map (include quadrangle name and number) or a legible copy showing the location of the completed well; [§290.41(c)(3)(A)]
5.  Record of a 36-hour continuous pump test on the well showing stable production at the well's rated capacity. Include the following: [§290.41(c)(3)(G)]
- (i) Test pump capacity in gpm, tdh in feet, and horsepower of the pump motor;
  - (ii) Test pump setting depth;
  - (iii) Static water level (in feet); and
  - (iv) Draw down (in feet).
6.  Three bacteriological analysis reports for samples collected on three successive days showing raw well water to be free of coliform organisms. Reports must be for samples of raw (untreated) water from the disinfected well and submitted to a laboratory accredited by TCEQ, accredited to perform these test; and [§290.41(c)(3)(F)(i)]
7.  Chemical analysis reports for well water samples showing the water to be of acceptable quality for the most problematic contaminants listed below. Reports must come from a laboratory accredited by TCEQ; accredited to perform these test. Maximum contaminant level (MCL) and secondary constituent level (SCL) units are in mg/l (except arsenic). [§290.41(c)(3)(G) and §290.104 and §290.105]

| MCL       | PRIMARY  | SCL  | SECONDARY | SCL   | SECONDARY              | SCL   | SECONDARY |
|-----------|----------|------|-----------|-------|------------------------|-------|-----------|
| 10 (as N) | Nitrate  | 0.2  | Aluminum  | 5.0   | Zinc                   | 300   | Sulfate   |
| 1 (as N)  | Nitrite  | 1.0  | Copper    | 1,000 | Total Dissolved Solids | 300   | Chloride  |
| 10 µg/l   | Arsenic  | 0.3  | Iron      | 2.0   | Fluoride               | ≥ 7.0 | pH        |
| 4.0       | Fluoride | 0.05 | Manganese | N/A   | Lead                   |       |           |

| Parameter                       | Units |
|---------------------------------|-------|
| Alkalinity as CaCO <sub>3</sub> | mg/l  |
| Calcium as CaCO <sub>3</sub>    | mg/l  |
| Sodium                          | mg/l  |

All systems located in a high-risk county (see page 3) shall submit radiological analysis reports for water samples showing the water to be of acceptable quality for the contaminants listed below. Reports must come from a TCEQ accredited laboratory for interim use of the well.

| MCL      | CONTAMINANT    |
|----------|----------------|
| 15 pCi/L | Gross alpha    |
| 5 pCi/L  | Radium-226/228 |
| 50 pCi/L | Beta particle  |
| 30 µg/L  | Uranium        |

WHERE: pCi/L = pico curies per liter, µg/L = micrograms per liter

Please be aware when you review your radiological data that if the report has gross alpha over 15 pCi/L and individual uranium isotopes are not reported, you will have to resample or reanalyze and resubmit radionuclide results. If you see gross alpha plus radium-228 over 5 pCi/L, and don't have radium-226, you will have to resample or reanalyze and resubmit complete results.

### LIST OF COUNTIES WHERE RADIONUCLIDE TESTING IS REQUIRED

Please be aware that we have added the requirement for analysis for radionuclides for high-risk counties. For elevated levels of any contaminants found in a test well, treatment or blending may be required.

| COUNTY    | STATE CODE # |
|-----------|--------------|
| Atascosa  | 007          |
| Bandera   | 010          |
| Bexar     | 015          |
| Bosque    | 018          |
| Brazoria  | 020          |
| Brewster  | 022          |
| Burnet    | 027          |
| Concho    | 048          |
| Culberson | 055          |
| Dallam    | 056          |
| Dawson    | 058          |
| Erath     | 072          |
| Fort Bend | 079          |
| Frio      | 082          |
| Garza     | 085          |
| Gillespie | 086          |
| Gray      | 090          |
| Grayson   | 091          |
| Harris    | 101          |

| COUNTY     | STATE CODE # |
|------------|--------------|
| Hudspeth   | 115          |
| Irion      | 118          |
| Jeff Davis | 122          |
| Jim Wells  | 125          |
| Kendall    | 130          |
| Kent       | 132          |
| Kerr       | 133          |
| Kleberg    | 137          |
| Liberty    | 146          |
| Llano      | 150          |
| Lubbock    | 152          |
| McCulloch  | 154          |
| Mason      | 160          |
| Matagorda  | 161          |
| Medina     | 163          |
| Midland    | 165          |
| Montgomery | 170          |
| Moore      | 171          |

| COUNTY      | STATE CODE # |
|-------------|--------------|
| Parker      | 184          |
| Pecos       | 186          |
| Polk        | 187          |
| Presidio    | 189          |
| Refugio     | 196          |
| San Jacinto | 204          |
| San Saba    | 206          |
| Tarrant     | 220          |
| Travis      | 227          |
| Tyler       | 229          |
| Upton       | 231          |
| Val Verde   | 233          |
| Victoria    | 235          |
| Walker      | 236          |
| Washington  | 239          |
| Wichita     | 243          |
| Williamson  | 246          |
| Zavala      | 254          |



Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



PWS\_CG\_Fort Bend\_20180228\_Exception

## Texas Commission on Environmental Quality

*Protecting Texas by Reducing and Preventing Pollution*

February 28, 2018

Mr. Jerry G. Ince, P.E.  
Ward, Getz & Associates, LLP  
2500 Tangewilde, Suite 120  
Houston, Texas 77063

Subject: Harlem Park Sports Facilities - PWS ID No. Unassigned  
Request for an Exception to the Sanitary Control Easement Rule  
Well No. 1 - TCEQ Well ID: Unassigned  
29° 36' 24.56"N Latitude; 95° 42' 58.28"W Longitude  
Fort Bend County, Texas  
RN: 104073929 | CN: 601229107

Dear Mr. Ince:

On October 30, 2017, the Texas Commission on Environmental Quality (TCEQ) received your letter dated October 24, 2017, for the Harlem Park Sports Facilities public water system (PWS). The letter requested an exception to the sanitary control easement (SCE) requirement for land not owned by a PWS located within 150-feet (ft) of a public water supply well, as specified in Title 30 of the Texas Administrative Code (30 TAC) §290.41(c)(1)(F). This request is for the proposed PWS Well No. 1 (TCEQ Well ID Unassigned), to be located at 29° 36' 24.56"N Latitude; 95° 42' 58.28"W Longitude. Your submittal indicates that Well No. 1 is a proposed well which has not been constructed. The TCEQ's determinations regarding the requested exception are discussed below.

### **Sanitary Control Easement Rule - 30 TAC §290.41(c)(1)(F)**

The TCEQ requires a PWS to maintain a 150-foot SCE around a public water well in order to prevent the placement of improvements, and to prevent the occurrence of conditions that may be a hazard to a PWS groundwater source. The October 30, 2017 submittal included a Water System Overview site map which list the proposed PWS Well No. 1 coordinates (29° 36' 24.56"N Latitude; 95° 42' 58.28"W Longitude) and notes that the proposed PWS well is within 150-ft of the following properties:

- Legal description: 0062 WM MORTON, TRACT 51, ACRES 86.5 property owned by Ms. Sandra Dompier and located approximately 130-ft to the west of the proposed PWS well; and
- Legal description: 0062 WM MORTON, TRACT 62 ACRES 49.5 property owned by Res/Vis Real Est LTD and located approximately 60-ft to the south of the proposed PWS well.

The TCEQ has determined that the inability to secure an SCE for the aforementioned properties indicate that this groundwater source may be susceptible to fecal contamination and may result in a risk to public health. The TCEQ's review of site geology indicates that the proposed PWS

Mr. Jerry Ince, P.E.  
Page 3 of 4  
February 28, 2018

Please update your system's monitoring plan to reflect the monitoring requirements outlined in this letter and mail to the TCEQ Monitoring Plan Coordinator at the following address:

Monitoring Plan Coordinator (MC 155)  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Additional information is available in TCEQ's Regulatory Guidance No. 384 (RG-384), *How to Develop a Monitoring Plan for a Public Water System*, or on our website at:

[www.tceq.texas.gov/permitting/water\\_supply/pdw/monitoring\\_plans/monitoring\\_plans.html](http://www.tceq.texas.gov/permitting/water_supply/pdw/monitoring_plans/monitoring_plans.html)

All public water system monitoring plans are required to be kept up-to-date and on file at the water system at all times and must be presented to TCEQ staff upon request.

**Condition 2:**

- The TCEQ's review of site geology notes that the well site is in a 100-year floodplain. The PWS is required to design the well in a manner that will prevent floodwater from encroaching on the wellhead, as per 30 TAC §290.41(c)(3)(K).

**Condition 3:**

- This temporary exception will expire in 36 months from the date of this letter (February 28, 2021).

The information submitted for this exception request included the following:

- Exception request submittal forms, TCEQ Form 20659;
- Sanitary survey;
- Maps detailing property boundaries and 150-ft radius;
- Sanitary control easement requests with certified mail receipts and US Postal Service tracking information;
- Warranty deed; and
- Site plans and drawings.

Enclosure 1

### Instructions for Positive Bacteriological Samples

If multiple raw water samples are found to be **positive** for total coliform and **negative** for *E. coli* and other fecal indicators, additional treatment may be required and the conditions established in the exception letter may be revised. TCEQ personnel recommend reviewing the sample collection protocol to ensure proper sample collection methods are in place. Personnel also recommend well disinfection according to American Water Works Association (AWWA) well disinfection standards.

If a raw water sample is found to be **positive** for total coliform and **positive** for *E. coli* or other fecal indicators, Ground Water Rule requirements include:

- A. Issuance of a Public Notice to water system customers in accordance with 30 TAC §290.122(a) within 24 hours of being notified of the positive result.
- B. Notification to all consecutive systems served by the well within 24 hours of being notified of the positive result.
- C. Notification to TCEQ Drinking Water Assessment Team personnel at 512-239-4691 or GWRdata@tceq.texas.gov within 24 hours of being notified of the positive result.
- D. Implementation of one or more of the Corrective Actions described in 30 TAC §290.116 as indicated by TCEQ Drinking Water Assessment Team personnel.

Additionally, the exception may be revoked or the conditions established in the exception letter may be revised.

Information on the Ground Water Rule can be found by calling 512-239-4691 and asking to speak to a member of the Drinking Water Assessment Team or at the following website:

[http://www.tceq.texas.gov/drinkingwater/microbial/gwr\\_main.html](http://www.tceq.texas.gov/drinkingwater/microbial/gwr_main.html)



# TCEQ Core Data Form

TCEQ Use Only

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

|  |   |  |
|--|---|--|
| 1. Reason for Submission (If other is checked please describe in space provided.)  |   |  |
| <input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.) |   |  |
| <input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)  | <input type="checkbox"/> Other  |  |
| 2. Customer Reference Number (if issued)   | Follow this link to search for CN or RN numbers in <a href="#">Central Registry**</a> | 3. Regulated Entity Reference Number (if issued) |
| CN 601229107   |   | RN 104073929                                     |

## SECTION II: Customer Information

|   |                                |  |                                 |
|---|--------------------------------|--|---------------------------------|
| 4. General Customer Information   |                                | 5. Effective Date for Customer Information Updates (mm/dd/yyyy)                |                                 |
| <input type="checkbox"/> New Customer   |                                | <input type="checkbox"/> Update to Customer Information                        |                                 |
| <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)  |                                | <input type="checkbox"/> Change in Regulated Entity Ownership                  |                                 |
| <i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i> |                                |  |                                 |
| 6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John)   |                                | If new Customer, enter previous Customer below:                                |                                 |
| Fort Bend County Parks  |                                |  |                                 |
| 7. TX SOS/CPA Filing Number   | 8. TX State Tax ID (11 digits) | 9. Federal Tax ID (9 digits)   | 10. DUNS Number (if applicable) |
|   | 17460019692                    | 746001969  | 081497075                       |
| 11. Type of Customer:   |                                | Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited |                                 |
| <input type="checkbox"/> Corporation  |                                | <input type="checkbox"/> Individual  |                                 |
| Government: <input type="checkbox"/> City <input checked="" type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other             |                                | <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other:   |                                 |
| 12. Number of Employees   |                                | 13. Independently Owned and Operated?  |                                 |
| <input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher              |                                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No            |                                 |
| 14. Customer Role (Proposed or Actual) - as it relates to the Regulated Entity listed on this form. Please check one of the following:  |                                |  |                                 |
| <input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator   |                                |  |                                 |
| <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:                  |                                |  |                                 |
| 15. Mailing Address:  |                                |  |                                 |
| Fort Bend County  |                                |  |                                 |
| 301 Jackson   |                                |  |                                 |
| City  | Richmond                       | State  | TX                              |
| ZIP   | 77469                          | ZIP + 4  |                                 |
| 16. Country Mailing Information (if outside USA)  |                                | 17. E-Mail Address (if applicable)   |                                 |
|   |                                | michel.davis@fortbendcountytexas.gov   |                                 |
| 18. Telephone Number  |                                | 19. Extension or Code  |                                 |
| ( 281 ) 642 - 3716  |                                |  |                                 |
|   |                                | 20. Fax Number (if applicable)   |                                 |
|   |                                | ( 281 ) 416 - 0682   |                                 |

## SECTION III: Regulated Entity Information

|   |  |
|---|--|
| 21. General Regulated Entity Information (If "New Regulated Entity" is selected below this form should be accompanied by a permit application)                                    |  |
| <input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information |  |
| <i>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>                |  |
| 22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)  |  |
| Harlem Park Sports Facilities   |  |

|  |                  |          |       |    |     |       |         |
|--|------------------|----------|-------|----|-----|-------|---------|
| 23. Street Address of the Regulated Entity:<br>(No PO Boxes) | 701 Harlem Rd    |          |       |    |     |       |         |
|  | City             | Richmond | State | TX | ZIP | 77406 | ZIP + 4 |
| 24. County   | Fort Bend County |          |       |    |     |       |         |

Enter Physical Location Description if no street address is provided.

|  |                                      |  |  |         |                  |
|--|--------------------------------------|--|--|---------|------------------|
| 25. Description to Physical Location:  | 20 Acre Park                         |  |  |         |                  |
| 26. Nearest City   | Richmond                             |  |  | State   | Nearest ZIP Code |
|  |                                      |  |  | Tx      | 77469            |
| 27. Latitude (N) In Decimal:   |                                      |  | 28. Longitude (W) In Decimal:            |         |                  |
| Degrees  | Minutes                              | Seconds                                | Degrees                                  | Minutes | Seconds          |
| 29   | 36                                   | 24.56                                  | 95                                       | 42      | 58.28            |
| 29. Primary SIC Code (4 digits)  | 30. Secondary SIC Code (4 digits)    | 31. Primary NAICS Code (5 or 6 digits) | 32. Secondary NAICS Code (5 or 6 digits) |         |                  |
|  |                                      |  |  |         |                  |
| 33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.) |                                      |  |  |         |                  |
| Parks & Recreation Sports Fields   |                                      |  |  |         |                  |
| 34. Mailing Address:   | 301 Jackson St                       |  |  |         |                  |
|  | City                                 | Richmond                               | State                                    | Tx      | ZIP 77469        |
| 35. E-Mail Address:  | michel.davis@fortbendcountytexas.gov |  |  |         |                  |
| 36. Telephone Number   | 37. Extension or Code                |  | 38. Fax Number (if applicable)           |         |                  |
| ( 281 ) 642 - 3716   |                                      |  | ( 281 ) 416 - 0682                       |         |                  |

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

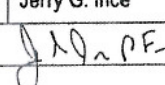
|  |  |   |  |   |
|--|--|---|--|---|
| <input type="checkbox"/> Dam Safety            | <input type="checkbox"/> Districts             | <input type="checkbox"/> Edwards Aquifer        | <input type="checkbox"/> Emissions Inventory Air | <input type="checkbox"/> Industrial Hazardous Waste |
| <input type="checkbox"/> Municipal Solid Waste | <input type="checkbox"/> New Source Review Air | <input type="checkbox"/> OSSF                   | <input type="checkbox"/> Petroleum Storage Tank  | <input checked="" type="checkbox"/> PWS             |
| <input type="checkbox"/> Sludge                | <input type="checkbox"/> Storm Water           | <input type="checkbox"/> Title V Air            | <input type="checkbox"/> Tires                   | <input type="checkbox"/> Used Oil                   |
| <input type="checkbox"/> Voluntary Cleanup     | <input type="checkbox"/> Waste Water           | <input type="checkbox"/> Wastewater Agriculture | <input type="checkbox"/> Water Rights            | <input type="checkbox"/> Other:                     |

SECTION IV: Preparer Information

|                      |               |                    |                                      |
|----------------------|---------------|--------------------|--------------------------------------|
| 40. Name:            | Michel Davis  | 41. Title:         | Parks Director                       |
| 42. Telephone Number | 43. Ext./Code | 44. Fax Number     | 45. E-Mail Address                   |
| ( 281 ) 642 - 3715   |               | ( 281 ) 416 - 0682 | michel.davis@fortbendcountytexas.gov |

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

|                 |   |            |                          |
|-----------------|---|------------|--------------------------|
| Company:        | Ward Getz & Associates, llp   | Job Title: | Senior Engineer          |
| Name(In Print): | Jerry G. Ince   | Phone:     | ( [713] ) [714] - [6247] |
| Signature:      |  | Date:      |                          |

**TCEQ PUBLIC WATER SYSTEM PLAN REVIEW SUBMITTAL FORM**  
(Complete, Seal and Attach to Submittal Package)

**WATER SYSTEM INFORMATION**

Date: 3/5/2018

TCEQ PWS Identification No.: Unassigned  
(Facilities will be assigned this PWS No.)

Water System Name: Harlem Park Sports Facilities

**OWNER INFORMATION**

Water System Owner: Fort Bend County Parks

Address: 301 Jackson, Richmond, Texas 77469 (AC) Phone:

Responsible Official: Michael Davis Title: Park Director

County (System Location): Fort Bend Mechanism & Source of Financing: (i.e. loans, rates, self-financed, etc.) Government

Subdivision Sec., Phase, Unit, Etc.

**ENGINEER INFORMATION**

Engineer Name: JERRY G. INCE, P.E. Registration No.: 81062

Firm Name: WARD, GET & ASSOCIATES, LLP Firm No.: 9756

(AC) Phone: OFFICE: 713-789-1900 DIRECT: 713-714-6247 (AC) Fax:

Firm Address: 2500 TANGLEWILDE, SUITE 120 HOUSTON, TX 77063

**SUBMITTAL INFORMATION**

Is this submittal for a new public water system? YES:  NO:

If no, proceed to the *Project Information* section on Page 2. If no PWS number exists, the owner must submit a core data form and business plan, if required, in accordance with §290.39(f) and (g).

**NEW (PROPOSED) WATER SYSTEMS**

(Only complete this section if this submittal is for a NEW water system)

For new (proposed) system submittals, please provide 2 copies of the submittal and attach the following:

- A list of all water utilities within ½ mile of the proposed service area boundaries (reference 30 TAC 290.39(c)(1))
  - Copies of written responses from each of the entities listed above (reference 30 TAC 290.39(c)(1))
  - Copies of formal applications for service from each of the following (reference 30 TAC 290.39(c)(1)) :
    - Any municipality if the system is within its ETJ
    - Any district or other political subdivision whose corporate boundaries are within ½ mile of the proposed service area boundaries
    - Any other water service provider whose certificated service area boundary is within ½ mile of the proposed service area boundaries
  - Documentation that all application requirements, including fee payments, are current.
  - Business plan:** Please complete the financial ability form, provide a cost summary for the proposed project, and submit a business plan (reference 30 TAC 290.39 (f)). The business plan must confirm capital available to construct the system according to TCEQ requirements. Acceptable financial information can include some of the following:
    - Financial statements (preferably audited), CPA compilation report, tax returns, statements of net worth, bank statements.
    - If the project is being funded with loan proceeds, provide a loan commitment letter from the lender specific to this project.
- If the plan submittal is for a community system, also provide a copy of the Certificate of Convenience and Necessity (CCN) application submitted to the Public Utility Commission of Texas (PUC), and complete items referenced in 30 TAC 290.39 (f) (1 - 13).

## TCEQ PUBLIC WATER SYSTEM PLAN REVIEW SUBMITTAL FORM (Complete, Seal and Attach to Submittal Package)

- Justification for constructing a separate system (if one of the entities listed above is willing to provide service)
- TCEQ Core Data Form (No. 10400)
- Emergency Preparedness Plan (No. 20536) if serving water in Harris or Fort Bend Counties and have overnight accommodations

### CERTIFICATE OF CONVENIENCE AND NECESSITY (CCN)

Certificates of Convenience and Necessity (CCN) applications are processed by the Public Utility Commission of Texas (PUC) and are required for privately owned systems and water supply corporations. If a CCN is required and a CCN does not exist, the applicant must obtain a CCN number or have the application accepted for filing at the PUC before a PWS project submittal can be technically reviewed. In addition, if a submittal is for a project located outside the CCN area, a CCN amendment application must be submitted before a project may be reviewed for construction approval. Please refer to PUC for additional information at: <http://www.puc.texas.gov/industry/water/guidance/UtilRulesGuidance.aspx>.

Will the proposed PWS be owned by either an investor owned utility (IOU) or water supply corporation (WSC)? If yes, please indicate which type of entity \_\_\_\_\_  
 YES:  NO:

Has a CCN application been submitted to the PUC? If yes, please provide the date of acceptance \_\_\_\_\_  
 YES:  NO:

List the name, license number and class of the operator for the proposed system:

### PROJECT INFORMATION

If a system does NOT have a PWS number, the sections above must be filled out

All engineering documents must be sealed, signed, and dated by a Texas registered professional engineer. An engineering report that includes the number of connections to be served must accompany each project. Please check each box that is applicable.

If this submittal is a revision of previously submitted plans, please provide the assigned TCEQ log number:

| New Projects/Facilities  | Modifications to Existing Facilities                                    |
|--|---|
| <input checked="" type="checkbox"/> Water well construction – Proposed | <input type="checkbox"/> Surface water treatment plant modifications    |
| <input type="checkbox"/> Well completion data for approved well        | <input type="checkbox"/> Storage capacity modifications                 |
| <input type="checkbox"/> Ground water treatment plant – New            | <input type="checkbox"/> Distribution system modifications              |
| <input type="checkbox"/> Surface water treatment plant – New           | <input type="checkbox"/> Pressure maintenance facilities modifications  |
| <input type="checkbox"/> Proposed Innovative/Alternative Treatment     | <input type="checkbox"/> Disinfection facilities or other modifications |
| <input type="checkbox"/> Request for rule exception                    | <input type="checkbox"/>  |
| <input type="checkbox"/> Preliminary engineering report without plans  |   |
| <input type="checkbox"/> Texas Water Development Board Project No.:    |   |
| <input type="checkbox"/> As-Built Plans & Engineering Report           |   |
| <input type="checkbox"/> Other (please describe):                      |   |

### SIGNATURE AND CERTIFICATION

The following certification indicates I have the authority to make submittals on behalf of the PWS referenced on Page 1. I hereby certify that the above information is, to the best of my knowledge, true and correct:

Engineer's Signature: \_\_\_\_\_  
 Engineer's Printed Name: JERRY G. INCE, P.E.  
 Date: 3/5/2018

**Signature/P.E. Seal Required below:**



Please call (512) 239-4691 if you have questions regarding this form. Your cooperation will help us provide better service. Additional helpful information and rules are available at the Public Water System Plan Review website.



DESIGN REPORT

FOR

**PROPOSED PUBLIC WATER SYSTEM**  
**HARLEM PARK SPORT**  
**FACILITIES**

IN

Fort Bend County, Texas

ON BEHALF OF

**FORT BEND COUNTY PARKS**

BY

**W|G|A**

WARD, GETZ & ASSOCIATES, LLP  
CONSULTING ENGINEERS  
TEXAS REGISTERED ENGINEERING FIRM F-9756  
2500 Tanglewilde, Suite 120  
Houston, Texas 77063  
713.789.1900



MARCH 2018

# Proposed Water Supply Well Construction Checklist (Step 1)

Texas Commission on Environmental Quality  
Water Supply Division  
Plan Review Team MC-159  
P.O. Box 13087, Austin, Texas 78711-3087

Public Water System I.D. No. Unassigned  
TCEQ Log No. P-\_\_\_\_\_

The following list is a brief outline of the "Rules for Public Water Systems", 30 TAC Chapter 290 regarding proposed Water Supply Well Construction. Sealed plans and specifications meeting, but not limited to, the minimum requirements cited here shall be prepared under the supervision of a Texas licensed professional engineer and submitted to TCEQ for approval. This list is not a substitute for the rules and this checklist cannot be accepted in lieu of the required engineering submittals. Failure to submit the following items may delay project approval. Copies of the rules may be obtained from **Texas Register, 1019 Brazos St, Austin, TX, 78701-2413, Phone: (512) 463-5561** or downloaded from the website: <http://www.tceq.texas.gov/rules/indxpathdf.html>

1.  Site map(s) with appropriate scale showing the following: [§290.41(c)(3)(A)]
  - (i) Proposed location of the well with coordinates;
  - (ii) Named roadways;
  - (iii) All property boundaries within 150 feet of the proposed well location and the property owners' names;
  - (iv) Concentric circles with the proposed well location as the center point with radii of 10 foot, 50 foot, 150, foot, and ¼ mile;
  - (v) Any site improvements and existing buildings;
  - (vi) Any existing or potential pollution hazards; and
  - (vii) Map must be scalable with a north arrow.
2.  Site plan and proposed well profile drawings showing the following: [§290.41(c)(3)(A)]
  - (i) Proposed well pump and setting depth;
  - (ii) Bore hole diameter(s) (must be 3" larger than casing OD) and total well depth;
  - (ii) Casing size, length, and material (e.g. 200 lf of 12" PVC SDR-17);
  - (iii) Length and material of any screens, blanks, and/or gravel packs utilized;
  - (iv) Flow meter and sampling cock prior to treatment;
  - (v) Well casing vent with a 16-mesh or finer corrosion-resistant screen;
  - (vi) Concrete sealing block extending at least 3 feet in all directions, with a minimum thickness of 6 inches and slope no less than 0.25 inches per foot for draining;
  - (vii) Disinfection injection point on the well discharge pipe and the location of the disinfection facilities; and
  - (viii) Intruder-resistant fence and an all-weather access road.
3.  A sealed engineer's report that sizes the well capacity based on connections or people to be served. See §290.45 for the minimum capacity requirements; [§290.39(e)(1)]
4.  A pollution hazard survey identifying all existing or potential pollution hazards: [§290.41(c)(1)(A)-(E)]
  - (i) Within 50 feet, identify any tile or concrete sanitary sewers, sewerage appurtenances, septic tanks, storm sewers, cemeteries, or livestock in pastures;
  - (ii) Within 150 feet, identify any septic tank perforated drainfields, areas irrigated by low dosage, low angle spray on-site sewage facilities, absorption beds, evapotranspiration beds, water wells that do not meet Public Drinking Water Standards, or underground fuel or petrochemical storage tanks or pipelines;

## PROPOSED WATER SUPPLY WELL CONSTRUCTION CHECKLIST (STEP 1)

- (iii) Within 300 feet, identify any sewage wet wells, sewage pump stations, or drainage ditches which contain industrial waste or sewage treatment waste;
  - (iv) Within 500 feet, identify any sewage treatment plants, livestock and animal feed lots, solid waste disposal sites, lands on which sewage plant or septic tank sludge is applied, or lands irrigated by sewage plant effluent; and
  - (v) Within ¼ mile, identify any abandoned or inoperative wells and any other existing or potential pollution hazards.
5.  A copy of the recorded deed of the property on which the well is located; [§290.41(c)(1)(F)(iv)]
6.  Drafts of sanitary control easements covering land within 150 feet of the well not owned by the public water system; [§290.41(c)(1)(F)]
7.  The premises, materials, tools, and drilling equipment shall be maintained so as to minimize contamination of the groundwater during drilling operation: [§290.41(c)(2)]
- (i) Water used in any drilling operation shall be of safe sanitary quality. Water used in the mixing of drilling fluids or mud shall contain a chlorine residual of at least 0.5 milligrams per liter (mg/L);
  - (ii) The slush pit shall be constructed and maintained so as to minimize contamination of the drilling mud; and
  - (iii) No temporary toilet facilities shall be maintained within 150 feet of the well being constructed unless they are of a sealed, leakproof type.
8.  Well casing requirements: [§290.41(c)(3)(B)]
- (i) The material shall conform to AWWA standards;
  - (ii) The casing shall extend a minimum of 18 inches above the elevation of the finished floor or the natural ground surface and a minimum of one inch above the sealing block or pump motor foundation block when provided;
  - (iii) The casing shall extend at least to the depth of the shallowest water formation to be developed and deeper, if necessary, in order to eliminate all undesirable water-bearing strata;
  - (iv) Well construction materials may not contain more than 0.25% lead; and
  - (v) Cementing depth and pressure method (one of the methods in latest revision of AWWA Standard A-100, Appendix C, excluding the dump bailer and tremie methods).
9.  When a gravel packed well is constructed, all gravel shall be of selected and graded quality and shall be thoroughly disinfected with a 50 mg/L chlorine solution as it is added to the well cavity; [§290.41(c)(3)(D)]
10.  Safeguards shall be taken to prevent possible contamination of the water or damage by trespassers following the completion of the well and prior to installation of permanent pumping equipment; [§290.41(c)(3)(E)]
11.  Upon well completion, the well shall be disinfected in accordance with current AWWA standards for well disinfection except that the disinfectant shall remain in the well for at least six hours; [§290.41(c)(3)(F)]
12.  Well head and sealing slab:
- (i) Concrete sealing block extending at least three feet from the well casing in all directions, with a minimum thickness of six inches and sloped to drain away at not less than 0.25 inches per foot shall be provided around the wellhead; [§290.41(c)(3)(J)]
  - (ii) Wellheads and pump bases shall be sealed by a gasket or sealing compound; [§290.41(c)(3)(K)]
  - (iii) Wellheads and well vents shall be at least two feet above the highest known watermark or 100-year flood elevation; [§290.41(c)(3)(K)]

## PROPOSED WATER SUPPLY WELL CONSTRUCTION CHECKLIST (STEP 1)

- (iv) If a well blow-off line is provided, its discharge shall terminate in a downward direction and at a point which will not be submerged by flood waters; [§290.41(c)(3)(L)]
  - (v) A suitable sampling cock shall be provided on the discharge pipe of each well pump prior to any treatment; and [§290.41(c)(3)(M)]
  - (vi) Flow-measuring devices shall be provided for each well to measure production yields and provide for the accumulation of water production data. [§290.41(c)(3)(N)]
13.  All completed well units shall be protected by intruder-resistant fences or shall be enclosed in locked, ventilated well houses to exclude possible contamination or damage to the facilities by trespassers; and [§290.41(c)(3)(O)]
14.  An all-weather access road shall be provided to each well site. [§290.41(c)(3)(P)]

## LIST OF COUNTIES WHERE RADIONUCLIDE TESTING IS REQUIRED

Please be aware that we have added the requirement for analysis for **radionuclides** for high risk counties. For elevated levels of any contaminants found in a test well, treatment or blending may be required.

| COUNTY    | STATE CODE # |
|-----------|--------------|
| Atascosa  | 007          |
| Bandera   | 010          |
| Bexar     | 015          |
| Bosque    | 018          |
| Brazoria  | 020          |
| Brewster  | 022          |
| Burnet    | 027          |
| Concho    | 048          |
| Culberson | 055          |
| Dallam    | 056          |
| Dawson    | 058          |
| Erath     | 072          |
| Fort Bend | 079          |
| Frio      | 082          |
| Garza     | 085          |
| Gillespie | 086          |
| Gray      | 090          |
| Grayson   | 091          |
| Harris    | 101          |

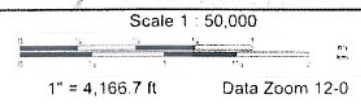
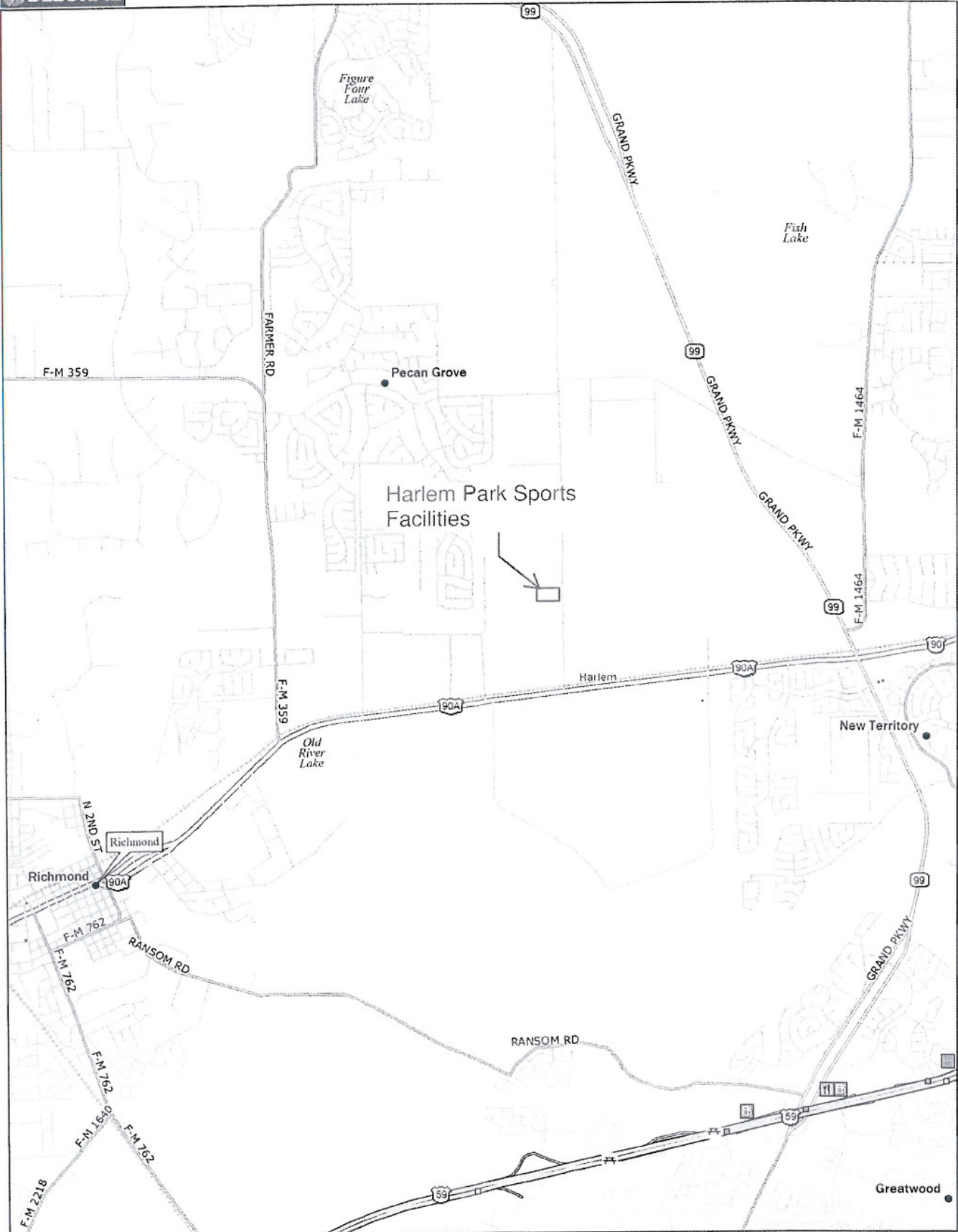
| COUNTY     | STATE CODE # |
|------------|--------------|
| Hudspeth   | 115          |
| Irion      | 118          |
| Jeff Davis | 122          |
| Jim Wells  | 125          |
| Kendall    | 130          |
| Kent       | 132          |
| Kerr       | 133          |
| Kleberg    | 137          |
| Liberty    | 146          |
| Llano      | 150          |
| Lubbock    | 152          |
| McCulloch  | 154          |
| Mason      | 160          |
| Matagorda  | 161          |
| Medina     | 163          |
| Midland    | 165          |
| Montgomery | 170          |
| Moore      | 171          |

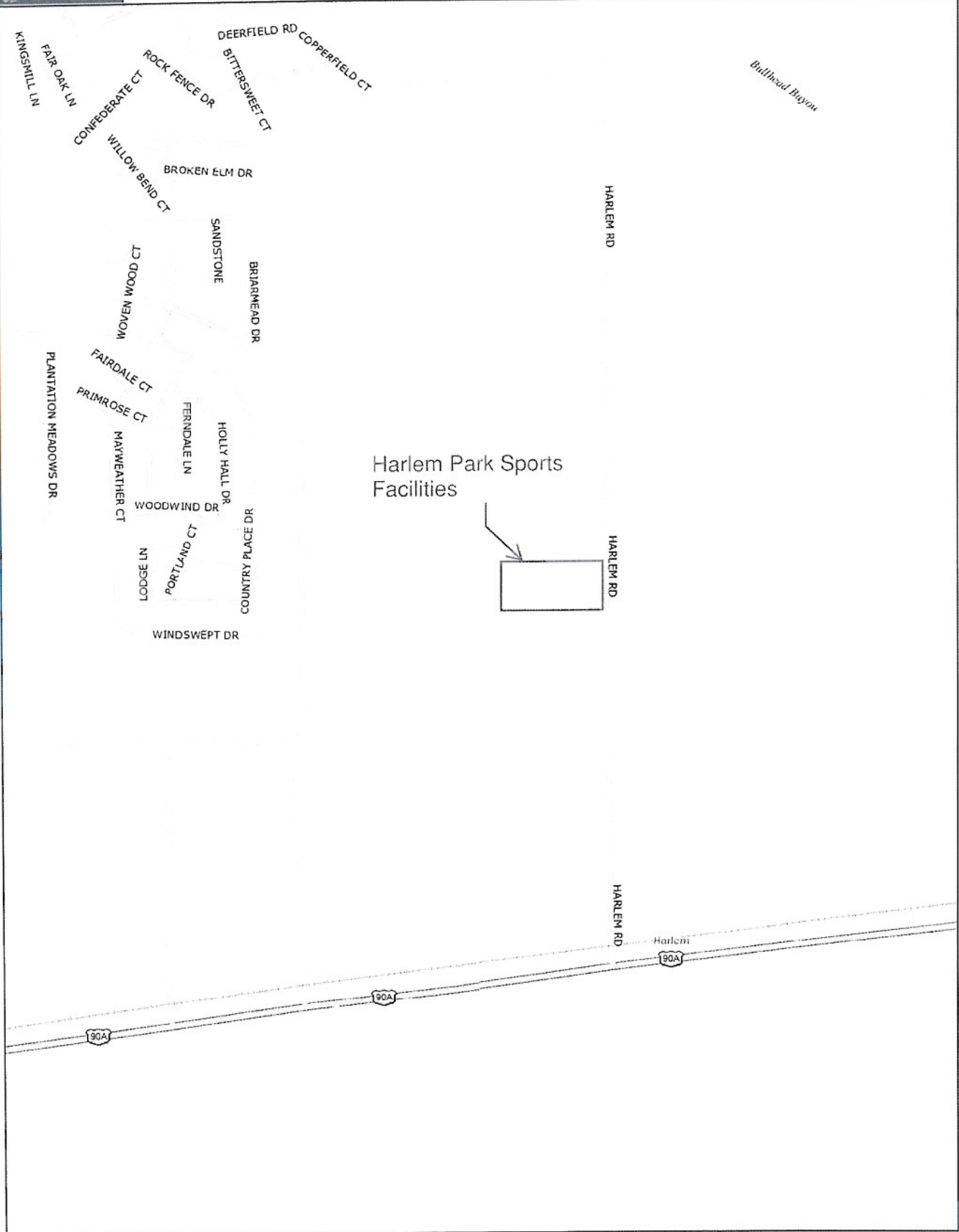
| COUNTY      | STATE CODE # |
|-------------|--------------|
| Parker      | 184          |
| Pecos       | 186          |
| Polk        | 187          |
| Presidio    | 189          |
| Refugio     | 196          |
| San Jacinto | 204          |
| San Saba    | 206          |
| Tarrant     | 220          |
| Travis      | 227          |
| Tyler       | 229          |
| Upton       | 231          |
| Val Verde   | 233          |
| Victoria    | 235          |
| Walker      | 236          |
| Washington  | 239          |
| Wichita     | 243          |
| Williamson  | 246          |
| Zavala      | 254          |



## LOCATION MAPS

**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018





Bullhead Bayou

Harlem Park Sports Facilities

HARLEM RD

HARLEM RD

HARLEM RD

Harlem

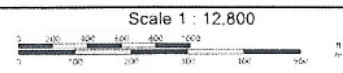
90A

90A

Data use subject to license.

© DeLorme. DeLorme Street Atlas USA® 2011.

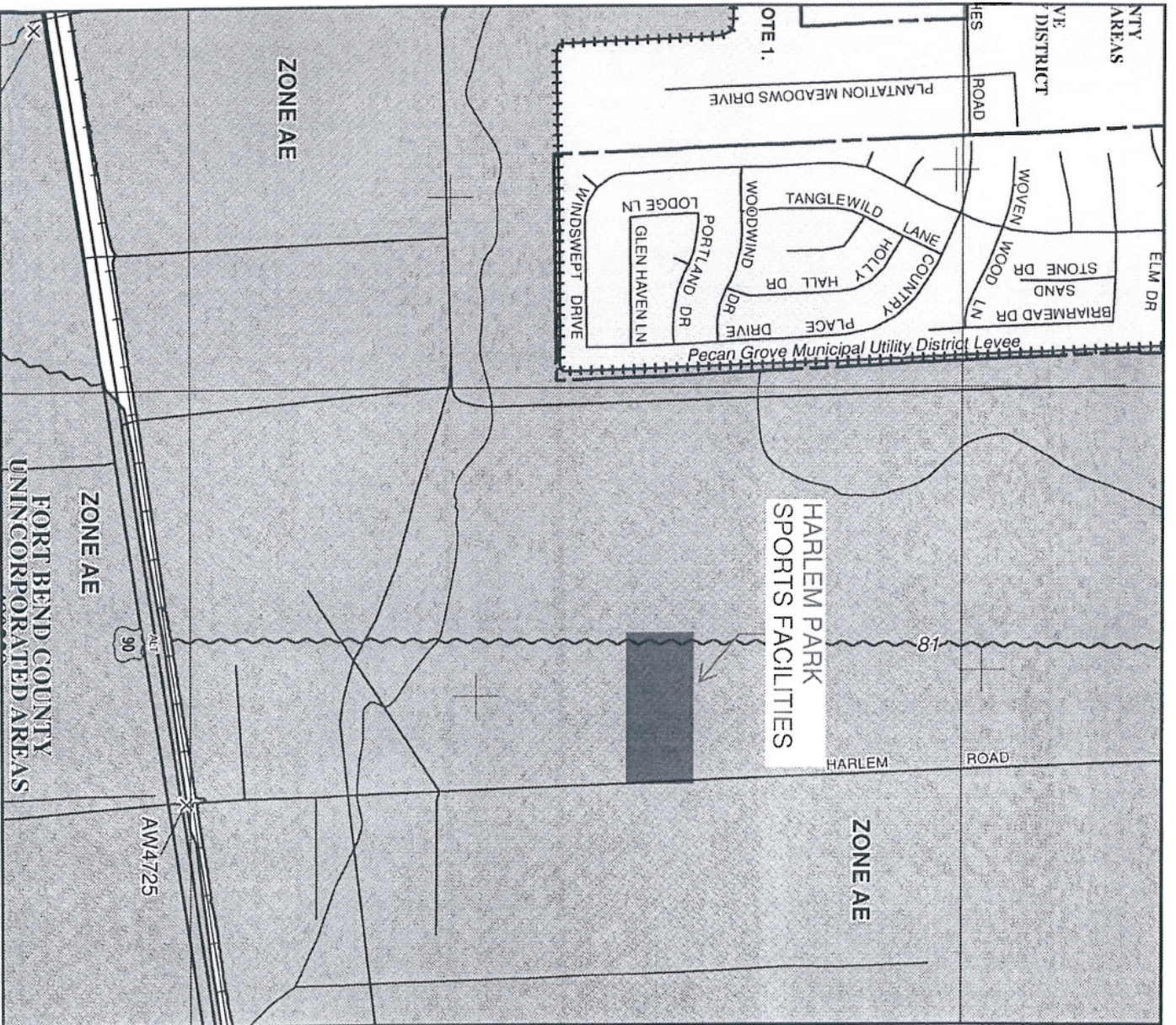
www.delorme.com



1" = 1,066.7 ft

Data Zoom 14-0

Scale 1 : 12,800



MAP SCALE 1" = 1000'



PANEL 0255L

**FIRM**  
FLOOD INSURANCE RATE MAP  
FORT BEND COUNTY,  
TEXAS  
AND INCORPORATED AREAS

PANEL 255 OF 575  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

| COMMUNITY             | NUMBER | PANEL | SUFFIX |
|-----------------------|--------|-------|--------|
| FORT BEND COUNTY      | 480228 | 0255  | L      |
| FORT BEND COUNTY      | 481584 | 0255  | L      |
| LEVEE IMPROVEMENT     |        |       |        |
| DISTRICT OF           | 481570 | 0255  | L      |
| FORT BEND COUNTY      |        |       |        |
| MUNICIPAL UTILITY     |        |       |        |
| DISTRICT 725          | 481486 | 0255  | L      |
| PECAN GROVE MUNICIPAL | 480231 | 0255  | L      |
| UTILITY DISTRICT      | 480234 | 0255  | L      |
| RICHMOND CITY OF      |        |       |        |
| SHOAR LAND CITY OF    | 480234 | 0255  | L      |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be listed on insurance applications for the subject community.

MAP NUMBER  
48157C0255L  
MAP REVISED  
APRIL 2, 2014



Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)





**WRITTEN RESPONSES FROM WATER UTILITIES  
WITHIN ½ MILE**

**Public Water System No. Unassigned  
Harlem Park Sports Facilities  
March 2018**

# W|G|A

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March 5, 2018

Utilities Technical Review Team  
Water Supply Division MC-159  
P.O. Box 13087  
Austin, Texas 78711-3087

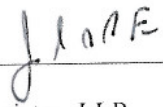
Re: List of Water Utilities and Copies of Correspondence

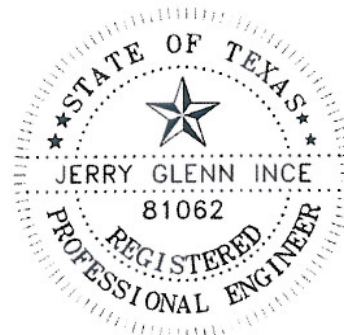
Utilities found within ½ mile of affected property:

1. **Pecan Grove**

If you find anything deficient please contact me.

Sincerely,

  
\_\_\_\_\_  
Jerry G. Ince, P.E.  
Ward, Getz & Associates, LLP  
Firm #9756



3-6-18

# W|G|A

CONSULTING ENGINEERS

October 16, 2017

Pecan Grove MUD  
Attn: Grady K Turner  
6335 Gulfton ST STE 100  
Houston, TX 77081-1112

Certified Mailing Receipt # 7017 1450 0000 5334 5087

Harlem Park Sport Facilities is applying with the State of Texas for permission to install a new Public Water Supply for their retail store located at Harlem Rd Richmond, Texas.

In order to be in compliance with the Texas Commission on Environmental Quality's regulations for new public water systems, Harlem Road Park must contact all public water utilities within a ½ mile radius to investigate interest/ability to supply the water to them. Your MUD was found less than ½ mile from the property.

Please respond to Ward, Getz & Associates, LLP at the address below to inform us of your ability to supply water to this site by checking the appropriate answer.

- YES**, Pecan Grove MUD can supply 450 GPD at this time.  
 **NO**, Pecan Grove MUD can NOT supply 450 GPD at this time.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

Thank you for your participation in these efforts.

Sincerely,



Evan Chatman  
Designer

Ward, Getz & Associates, LLP  
2500 Tanglewilde, Suite 120  
Houston, TX 77063  
713.789.1900

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**OFFICIAL USE**

7017 1450 0000 5334 5087

Certified Mail Fee  
\$ \_\_\_\_\_  
Extra Services & Fees (check box, add fee as appropriate)  
 Return Receipt (hardcopy) \$ \_\_\_\_\_  
 Return Receipt (electronic) \$ \_\_\_\_\_  
 Certified Mail Restricted Delivery \$ \_\_\_\_\_  
 Adult Signature Required \$ \_\_\_\_\_  
 Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage  
\$ \_\_\_\_\_  
Total Postage and Fees  
\$ \_\_\_\_\_

Postmark  
Here  
**RECEIVED**  
OCT 16 2017

Sent To **Bean Grove MUD**  
Street and Apt. No., or PO Box No.  
**6335 Gulton St. STE #100**  
City, State, ZIP+4®  
**Houston, TX 77081**



**ENGINEER'S REPORT  
(SPECIFICATIONS, CALCULATIONS)**

**Public Water System No. Unassigned  
Harlem Park Sports Facilities  
March 2018**

## SYSTEM CAPACITY CALCULATIONS FOR HARLEM PARK SPORTS FACILITIES

### HISTORY

**Harlem Park Sports Facilities**, is proposed public water system intended to serve Fort Bend County Public Park. Harlem Park Sports Facilities will have on average 75 people daily at the park.

### WATER WELL CAPACITY

From TAC 290.45(d)(2)(\A)(i) for well capacity:

A well capacity which meets or exceeds the maximum daily demand during the hours of operation.

Public Park population = 75/day

Public Park demand = 6 Gallons x 75 People = 450 gpd

450 gpd / 8 hrs / 60 min = **0.93 gpm**

The proposed well is designed to produce 15gpm. This will exceed TCEQ minimum requirements by 14.07 gpm and allow well capacity for future development.

### PRESSURE TANK CAPACITY

From TAC 290.45(d)(2)(B)(v) for pressure tank capacity

*A minimum pressure tank capacity of 220 gallons with additional capacity, if necessary, based on a sanitary survey conducted by the executive director*

Minimum 220 gallons

The proposed pressure tank will have a capacity of 315 gallons. This will exceed TCEQ minimum requirements by 95 gallons and allow additional capacity for future development.





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### CHEMICAL STORAGE TANK CAPACITY

The chemical storage tank will need to be able to store a minimum 15-day volume of disinfectant:

Cl<sub>2</sub> concentration in sodium hypochlorite:

$$\frac{(12.0\%) \times (8.34 \text{ lbs/gal}) \times (1.09)}{100} = 1.091 \text{ Lbs/gal}$$

Daily sodium hypochlorite:

$$\frac{(0.00045 \text{ MGD}) \times (2.0 \text{ mg/L}) \times (8.34 \text{ lbs/gal})}{1.091 \text{ Lbs/gal}} = 0.006 \text{ gal/day}$$

15-day storage capacity:

$$0.006 \times 15 = 0.09 \text{ gal}$$

The proposed storage tank will have a capacity of 30 gallons. This will exceed TCEQ minimum requirements by 29.91 gallons.





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**GENERAL SPECIFICATION  
SECTION 0101  
PUBLIC WATER SUPPLY WELLS**

**GENERAL**

The water well must be constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D.

**SANITATION**

The premises, materials, tools, and drilling equipment shall be maintained so as to minimize contamination of the groundwater during drilling operation as described in TAC 290.41(c)(2).

1. Water used in any drilling operation shall be of safe sanitary quality. Water used in the mixing of drilling fluids or mud shall contain a chlorine residual of at least 0.5 milligrams per liter (mg/L).
2. The slush pit shall be constructed and maintained so as to minimize contamination of the drilling mud. The slush pits for drilling purposes shall be located so as not to interfere with the construction of tanks or buildings on the site of the work and the Contractor shall not dig any pits until the location has been approved by the Engineer.
3. No temporary toilet facilities shall be maintained within 150 feet of the well being constructed unless they are of a sealed, leakproof type.
4. Groundwater wells shall be located so that there will be no danger of pollution from flooding or from unsanitary surroundings as described in TAC 290.41(c)(1). No water well shall be located within:
  - 50 feet of a tile or concrete sanitary sewer, sewerage appurtenance, septic tank, storm sewer, livestock, or cemeteries.
  - 150 feet of a septic tank perforated drainfield, areas irrigated by low dosage, low angle spray on-site sewage facilities, absorption bed, evapotranspiration bed, improperly constructed water well, or underground petroleum and chemical storage tank or liquid transmission pipeline
  - 300 feet of a sewage wet well, sewage pumping station, or a drainage ditch which contains industrial waste discharges or the wastes from sewage treatment systems.
  - 500 feet of a sewage treatment plant, animal feed lots, solid waste disposal sites, lands on which sewage plant or septic tank sludge is applied, or lands irrigated by sewage plant effluent.

**CONSTRUCTION**

The construction of a well to be used as a public water supply source must meet the following conditions.

1. The casing material used in the construction of wells for public use shall be new carbon steel, high strength low alloy steel, stainless steel or plastic. The material shall conform to AWWA standards. The casing shall extend a minimum of 18 inches above the elevation of the finished floor of the pump room or natural ground surface and a minimum of one inch above the sealing block or pump motor foundation block when provided. The casing shall extend at least to the depth of the shallowest water formation to be developed and deeper, if necessary, in order to eliminate all undesirable water bearing strata. Well





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- construction materials containing more than 0.25% lead are prohibited. TAC 290.41(c)(3)(B).
2. The space between the casing and drill hole shall be sealed by using enough cement under pressure to completely fill and seal the annular space between the casing and the drill hole. The well casing shall be cemented in this manner from the top of the shallowest formation to be developed to the earth's surface. The driller shall utilize a pressure cementation method in accordance with the AWWA Standard for Water Wells (A100-15), Appendix C: Section C.2 (Positive Displacement Exterior Method); Section C.3 (Interior Method Without Plug); Section C.4 (Positive Placement, Interior Method, Drillable Plug); and Section C.5 (Placement Through Float Shoe Attached to Bottom of Casing). TAC 290.41(c)(3)(C).
  3. A concrete sealing block extending at least three feet from the well casing in all directions, with a minimum thickness of six inches and sloped to drain away at not less than 0.25 inches per foot shall be provided around the wellhead. TAC 290.41(c)(3)(J).
  4. Wellheads and pump bases shall be sealed by a gasket or sealing compound and properly vented to prevent the possibility of contaminating the well water. A well casing vent shall be provided with an opening that is covered with 16 mesh or finer corrosion resistant screen, facing downward, elevated and located so as to minimize the drawing of contaminants into the well. Wellheads and well vents shall be at least two feet above the highest known watermark or 100 year flood elevation, if available or adequately protected from possible flood damage by levees. TAC 290.41(c)(3)(K).
  5. The well site shall be fine graded so that the site is free from depressions, reverse grades, or areas too rough for proper ground maintenance so as to ensure that surface water will drain away from the well. In all cases, arrangements shall be made to convey well pump drainage, packing gland leakage, and floor drainage away from the wellhead. Suitable drain pipes located at the outer edge of the concrete floor shall be provided to collect this water and prevent its ponding or collecting around the wellhead. This wastewater shall be disposed of in a manner that will not cause any nuisance from mosquito breeding or stagnation. Drains shall not be directly connected to storm or sanitary sewers. TAC 290.41(c)(3)(I).
  6. If a well blow off line is provided, its discharge shall terminate in a downward direction and at a point which will not be submerged by flood waters. TAC 290.41(c)(3)(L).
  7. An air release device shall be installed in such a manner as to preclude the possibility of submergence or possible entrance of contaminants. In this respect, all openings to the atmosphere shall be covered with 16 mesh or finer, corrosion resistant screening material or an acceptable equivalent. TAC 290.41(c)(3)(Q).
  8. An all-weather access route shall be provided to each well site. TAC 290.41(c)(3)(P).
  9. Neat Cement: AWWA A100-15 4.3.7.1.1 standard - A maximum of 6 percent, by dry weight, beneficiated (not enhanced or "high yield") bentonite may be added to the neat cement grout. With bentonite additive, the mixture of cement and water should begin at the base ratio of 5.2 gall (19.7 L) of water per 94-lb (42.6-Kg) sack of cement plus an additional 0.65 (2.5 L) gal of water per sack of cement for each 1 percent bentonite additive. Note also that the bentonite contribution to the mixture is affected by the mixing protocol, that is, whether the bentonite is mixed dry with the dry cement prior to adding



## CONSULTING ENGINEERS

mixing water or instead is added first to the mixing water (prehydrated) prior to the addition of cement. Prehydrated bentonite generates more effect, such that 1 percent of bentonite added first to the mixing water (prehydrated) has the same effect as 3.6 percent of bentonite by dry weight mixed first with the dry cement. The additional gallons of mixing water required (0.65 gal of water for each 1 percent bentonite dry mixed) must be selected with consideration to the different mixing protocols and the relative effect of the bentonite in each protocol.

### **DISINFECTION**

The disinfection of a well to be used as a public water supply source must meet the following conditions.

1. All gravel shall be of selected and graded quality and shall be thoroughly disinfected with a 50 mg/L chlorine solution as it is added to the well cavity. TAC 290.41(c)(3)(D).
2. Upon well completion, or after an existing well has been reworked, the well shall be disinfected in accordance with current AWWA Standard C654-13 or most recent for well disinfection except that the disinfectant shall remain in the well for at least six hours. TAC 290.41(c)(3)(F).

### **SECURITY**

The protection of a well to be used as a public water supply source must meet the following conditions.

1. Safeguards shall be taken to prevent possible contamination of the water or damage by trespassers following the completion of the well and prior to installation of permanent pumping equipment. TAC 290.41(c)(3)(E).
2. All completed well units shall be protected by intruder resistant fences, the gates of which are provided with locks or shall be enclosed in locked, ventilated well houses to exclude possible contamination or damage to the facilities by trespassers. The gates or wellhouses shall be locked during periods of darkness and when the plant is unattended. TAC 290.41(c)(3)(O).

### **TESTING**

The testing of a well to be used as a public water supply source must meet the following conditions.

1. A suitable sampling cock shall be provided on the discharge pipe of each well pump prior to any treatment. TAC 290.41(c)(3)(M).
2. Flow measuring devices shall be provided for each well to measure production yields and provide for the accumulation of water production data. These devices shall be located to facilitate daily reading. TAC 290.41(c)(3)(N).
3. Driller must provide records of 36 hour pump test on the well showing stable production at the well's rated capacity (section 290.41 (c)(3)(A) & (G) of the rules). Include the final well pump capacity in gpm and feet, t.d.h.
4. Driller must provide three bacteriological analysis reports showing raw well water to be free of coliform bacterial contamination; reports must be for samples of raw (untreated) water from the disinfected well, collected on three successive days, and submitted to a laboratory certified or accredited by TCEQ. (Section 290.41 (c)(3)(A) & (G) of the rules.)

5. Driller must provide chemical analysis reports for well water samples showing the water to be acceptable quality for at least, the most problematic contaminants listed below  
(Section 290.41 (c)(3)(A) & (G) of the rules, and Section 290.104 and 290.105 of Drinking Water Standards.) The water quality analysis must be performed by a TCEQ Accredited Laboratory approved to perform each specific test required in accordance with Title 30 Texas Administrative Code (TAC) 25 environmental Testing Laboratory Accreditation and Certification. Maximum contaminant level (MCL) and secondary contaminant level (SCL) units are in mg/l (except arsenic).
6. This well is located in Madison County and all counties on the list fall under the requirement for radionuclide testing as shown on the TCEQ guidance sheet.

### PROJECT DATA

1. This property falls in FEMA Zone AE and as shown on FIRM 48157C0255L.
  - a. Well casing to extend 24" above the sealing slab.
2. The following well construction materials are estimated:
  - a) Estimated borehole size to be 8.75" in diameter to a depth of 360'
  - b) Casing to be 360 of 5" SDR 17 PVC pipe. (ASTM F480)
  - c) Estimated pressure cement depth is 360 feet.
  - d) Screen to be 20' of 2.5" Slotted PVC screen from 360' to 380'.
  - e) Drop pipe to be 212' or as needed of 2" ASTM D1785 pipe.
  - f) Submersible pump to be 4" Meyers Ranger – SS20-25 – 2-hp or equal.
  - g) Vent screen to be 16 mesh and corrosion resistant.
3. Driller must use Positive Displacement Method (Interior Method) for cementing.
  - a. A completed TCEQ Cementing Certificate Report must be provided to the design engineer upon completion of the well.
  - b. A copy of the completed Texas Department of Licensing and Regulation (TDLR) Well Report (TDLR Form 001WWD / 11-13) must be provided to the design engineer upon completion of the well.
4. No test hole is required for this installation.

**GENERAL SPECIFICATION  
SECTION 0102  
HYDROPNEUMATIC PRESSURE TANKS**

**GENERAL**

These water well facilities must be constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D.

1. No more than three pressure tanks shall be installed at any one site without the prior approval of the executive director. TAC 290.43(d)(9).

**TANK CONSTRUCTION**

The design and construction of hydropneumatic pressure tanks to be used in a public water system must meet the following conditions.

1. Hydro-pneumatic tanks must be located wholly above grade and must be of steel construction with welded seams. Seamless fiberglass tanks may be utilized as long as they do not exceed 300 gallons in capacity. TAC 290.43(d).
2. Metal thickness for pressure tanks shall be sufficient to withstand the highest expected working pressures with a four to one factor of safety. Tanks for 1000 gallon capacity or larger must meet the standards of the American Society of Mechanical Engineers (ASME) Section VIII, Division 1 Codes and Construction Regulations and must have an access port of periodic inspections. An ASME name plate must be permanently attached to those tanks. Tanks installed before July 1, 1988, are exempt from the ASME coding requirement, but all new installations must meet this regulation. Exempt tanks can be relocated within a system, but cannot be relocated to another system. TAC 290.43(d)(1).
3. Hydropneumatic pressure tanks shall be painted, disinfected and maintained in strict accordance with current AWWA standards. Protective paint or coating shall be applied to the inside portion of any pressure tank. However, no temporary coating, wax, grease coating or coating materials containing lead will be allowed. No other coating will be allowed which are not approved for use (as a contact surface with potable water by the United States environmental Protection Agency (EPA), National Sanitation Foundation (NSF), The United States Food and Drug Administration (FDA). All newly installed coatings must conform to ANSI/ NSF Standard 61-G and must be certified by an organization accredited by ANSI. TAC 290.43(d)(4).

**APPURTENANCES**

The appurtenances for hydropneumatic pressure tanks to be used in a public water system must meet the following conditions.

1. All pressure tanks shall be provided with a pressure release device and an easily readable pressure gauge. TAC 290.43(d)(2).
2. Facilities shall be provided for maintaining the air-water-volume at the design water level and working pressure. Air injection lines must be equipped with filters or other devices to prevent compressor lubricant and other contaminants from entering the pressure tank. A device to readily determine air-water-volume must be provided for all tanks greater than 1000 gallon capacity. Galvanized tanks which are not provided with the necessary fittings and were installed before July 1, 1988, shall be exempt from this requirement. TAC 290.43(d)(3).

3. Pressure tank installations should be equipped with slow closing valves and time delay pump controls to eliminate water hammer to reduce the chance of tank failure. TAC 290.43(d)(6).
4. Associated appurtenances including valves pipes and fittings connected to pressure tanks shall be thoroughly tight against leakage. TAC 290.43(d)(7).

## **SECURITY**

Hydropneumatic pressure tanks to be used in a public water system must meet the following security conditions.

1. All potable water storage tanks and pressure maintenance facilities must be enclosed by an intruder resistant fence with lock-able gates. Pedestal type elevated storage tanks with lock-able doors and without external ladders are exempt from this requirement. The gates and doors must be kept locked whenever the facility is unattended. TAC 290.43(e).
2. No pressure tank that has been used to store any material other than potable water may be used in a public water system. A letter from the previous owner or owners must be provided. TAC 290.43(d)(5).

## **PROJECT DATA**

1. One tank shall be used. A 315-gallon hydropneumatic pressure tank as manufactured by Perma Tank or equivalent.
2. Tanks shall be equipped with all nozzles as shown on drawings for drains, inlets, outlets, and valves.
3. Coatings shall meet all applicable AWWA standards.
4. Finished water storage structures shall be disinfected in accordance with current AWWA Standards c652, most current revision. Two or more successive sets of samples, taken at 24-hour intervals, shall indicate microbiologically satisfactory water before the facility is placed into operation.
  - b. Disposal of heavily chlorinated water from the tank disinfection process shall be in accordance with the requirements of the state pollution control authority.
  - c. The disinfection procedure (AWWA C652 Chlorination method 3, section 4.3) which allows use of the chlorinated water held in the storage tank for disinfection purposes is not recommended. When that procedure is used, it is recommended that the initial heavily chlorinated water be properly disposed in order to prevent release of water which may contain various chlorinated organic compounds into the distribution system.

**GENERAL SPECIFICATION  
SECTION 0104  
PUBLIC WATER SUPPLY DISTRIBUTION SYSTEM**

1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water Systems.
2. An appointed engineer shall notify in writing the local TCEQ's Regional Office when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner shall notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the work has been completed essentially according to the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).
3. All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61-G and must be certified by an organization accredited by ANSI, as required by 30 TAC §290.44(a)(1).
4. Plastic pipe for use in public water systems must bear the National Sanitation Foundation Seal of Approval (NSF pw-G) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC §290.44(a)(2).
5. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).
6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface, as required by 30 TAC §290.44(a)(4).
7. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
  - o The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$Q = \frac{LD\sqrt{P}}{148,000}$$



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Where:

- Q = the quantity of makeup water in gallons per hour,
  - L = the length of the pipe section being tested, in feet,
  - D = the nominal diameter of the pipe in inches, and
  - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- o The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use

$$L = \frac{SD\sqrt{P}}{148,000}$$

Where:

- L = the quantity of makeup water in gallons per hour,
  - S = the length of the pipe section being tested, in feet,
  - D = the nominal diameter of the pipe in inches, and
  - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
8. Projects constructed on or after January 4, 2014 must comply with changes to the Safe Drinking Water Act that reduce the maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures to 0.25 percent.
  9. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC §290.44(d).
  10. The contractor shall install appropriate air release devices in the distribution system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent as required by 30 TAC §290.44(d)(1).
  11. Pursuant to 30 TAC §290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans.
  12. Pursuant to 30 TAC §290.44(d)(5), sufficient valves and blowoffs to make repairs. The engineering report shall establish criteria for this design.
  13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends

are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.

14. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC §290.44(e)(1-4) of the current rules.
15. Pursuant to 30 TAC §290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant.
16. Pursuant to 30 TAC §290.44(e)(6), fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction.
17. Pursuant to 30 TAC §290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line.
18. Pursuant to 30 TAC §290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields.
19. Pursuant to 30 TAC §290.44(f)(1), the contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation.
20. Pursuant to 30 TAC §290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.
21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 TAC §290.44(f)(3).





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22. Where cement stabilized sand bedding is required, the cement stabilized sand shall have a minimum of 10% cement per cubic yard of cement stabilized sand mixture, based on loose dry weight volume or at least 2.5 bags of cement per cubic yard mixture. The cement stabilized sand bedding shall be a minimum for six inches above and four inches below the wastewater main or lateral. The use of brown coloring in cement stabilized sand for wastewater or lateral bedding is recommended for the identification of pressure rated wastewater mains during future construction. In accordance with TAC 290.44 (v) (4) (B) (vi)

**Water Pipe Distribution Specifications**

1. We will use 448 feet of 2" ASTM D1784 PVC (SCH 40) pipe.

**GENERAL SPECIFICATION  
SECTION 0106  
CHEMICAL STORAGE TANKS AND PERISTALTIC PULSE PUMPS**

**GENERAL**

Hypochlorination solution containers and pumps must be housed in a secure enclosure to protect them from adverse weather conditions and vandalism. The solution container top must be completely covered to prevent the entrance of dust, insects, and other contaminants. 30 TAC §290.42(e)(5)

1. Disinfection equipment shall be selected and installed so that continuous and effective disinfection can be secured under all conditions. 30 TAC §290.42(e)(3)
2. Disinfection equipment shall have a capacity at least 50% greater than the highest expected dosage to be applied at any time. It shall be capable of satisfactory operation under every prevailing hydraulic condition. 30 TAC §290.42(e)(3)(A)
3. Automatic proportioning of the disinfectant dosage to the flow rate of the water being treated shall be provided at plants where the treatment rate varies automatically and at all plants where the treatment rate varies more than 50% above or below the average flow. Manual control shall be permissible at surface water treatment plants or plants treating groundwater under the direct influence of surface water only if an operator is always on hand to make adjustments promptly. 30 TAC §290.42(e)(3)(B)
4. Facilities shall be provided for determining the amount of disinfectant used daily as well as the amount of disinfectant remaining for use. 30 TAC §290.42(e)(3)(D)
5. When used, solutions of calcium hypochlorite shall be prepared in a separate mixing tank and allowed to settle so that only a clear supernatant liquid is transferred to the hypochlorinator container. 30 TAC §290.42(e)(3)(E)
6. Provisions shall be made for both pretreatment disinfection and post-disinfection in all surface water treatment plants. Additional application points shall be installed if they are required to adequately control the quality of the treated water. 30 TAC §290.42(e)(3)(F)

**SAFETY**

Safety equipment for all chemicals used in water treatment shall meet applicable standards established by the OSHA or Texas Hazard Communication Act, Texas Health and Safety Code, Title 6, Chapter 502. Systems must comply with United States Environmental Protection Agency (EPA) requirements for Risk Management Plans.

**SECURITY**

Each water treatment plant and all appurtenances thereof shall be enclosed by an intruder-resistant fence. The gates shall be locked during periods of darkness and when the plant is unattended. A locked building in the fence line may satisfy this requirement or serve as a gate.

**PROJECT DATA**

1. Liquid sodium hypochlorite will be used for this system to chemical disinfection of the raw water supply. The sodium hypochlorite shall be stored in a 30-gallon polyethylene bulk storage tank, model no. STS30GC as manufactured by Stenner Pump Company or equal. Spill containment is not required for storage tanks smaller than 55 gallons.
2. Disinfectant shall be delivered by an adjustable output peristaltic pulse pump with a capacity of 0.05 to 5.0 gpd, model no. 45MHP2 as manufactured by Stenner Pump Company or equal.



**SUBMERSIBLE WELL PUMP**

**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018

### THE RANGER™

The Ranger™ Series 4" high-flow submersible pumps are perfect for applications requiring a large volume of water. Stainless steel components and high-density composite resin impellers provide exceptional resistance to corrosion in harsh water conditions. The high-torque motor and superior pump hydraulics are carefully matched to handle virtually any job.

#### APPLICATIONS

Water systems... irrigation, industrial, commercial, multiple housing and farm clean water use

#### SPECIFICATIONS

- Shell - 304 Stainless Steel
- Discharge - 304 Stainless Steel
- Discharge Bearing - Buna-N
- Impellers - Noryl®
- Diffusers - Noryl
- Suction Caps - Noryl
- Shaft and Coupling - 304 Stainless Steel
- Intake - 304 Stainless Steel
- Intake Screen - 304 Stainless Steel
- Cable Guard - 304 Stainless Steel
- Check Valve - Polyester Teflon®
- Fasteners - 304 Stainless Steel

#### FEATURES

##### Turn Up the Volume

High-flow capacities to 100 GPM make the Ranger 4" sub the easy choice for the really big jobs

##### More Stainless Steel

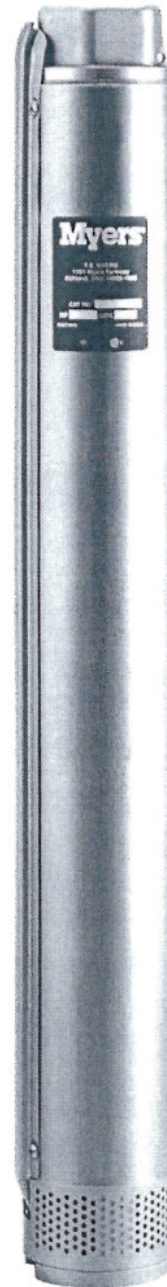
Shell, discharge and suction bowl, shaft and coupling, lead guard and suction screen - all lead-free

##### Staged for Toughness

Specially designed, high-density thermo-plastic impellers resist the corrosive wear from harsh water conditions

##### High-powered Performance

Features a high-torque, heavy-duty motor for the most demanding applications

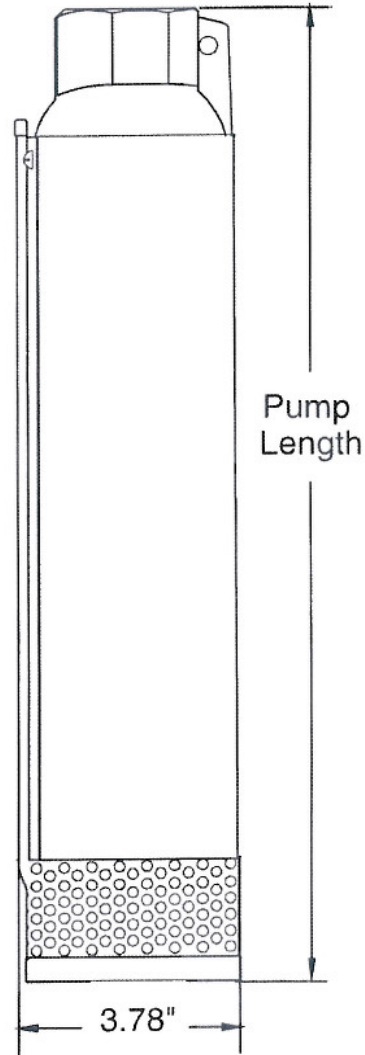


Noryl® is a registered trademark of the General Electric Company. Nylatron® is a registered trademark of The Polymer Corporation. Teflon® is a registered trademark of Dupont. Ranger™ is a trademark of Pentair Water.

### ORDERING INFORMATION - PUMP

| GPM | HP    | Stages | Assembled Pump |                |                |
|-----|-------|--------|----------------|----------------|----------------|
|     |       |        | Catalog Number | Length Inches* | Weight Pounds* |
| 25  | 1     | 7      | SS10-25        | 18             | 12             |
|     | 1-1/2 | 9      | SS15-25        | 21             | 14             |
|     | 2     | 11     | SS20-25        | 24             | 15             |
|     | 3     | 15     | SS30-25        | 30             | 19             |
|     | 5     | 25     | SS50-25        | 48             | 27             |
|     | 7-1/2 | 37     | SS75-25        | 67             | 55             |
| 35  | 1     | 4      | SS10-35        | 15             | 10             |
|     | 1-1/2 | 6      | SS15-35        | 18             | 12             |
|     | 2     | 8      | SS20-35        | 22             | 14             |
|     | 3     | 11     | SS30-35        | 28             | 17             |
|     | 5     | 18     | SS50-35        | 43             | 24             |
|     | 7-1/2 | 28     | SS75-35        | 62             | 52             |
|     | 10    | 37     | SS100-35       | 75             | 63             |
| 50  | 1-1/2 | 6      | SS15-50        | 21             | 14             |
|     | 2     | 7      | SS20-50        | 23             | 15             |
|     | 3     | 10     | SS30-50        | 31             | 19             |
|     | 5     | 16     | SS50-50        | 48             | 27             |
|     | 7-1/2 | 25     | SS75-50        | 70             | 59             |
|     | 10    | 32     | SS100-50       | 84             | 68             |
| 80  | 2     | 6      | SS20-80        | 29             | 16             |
|     | 3     | 9      | SS30-80        | 39             | 20             |
|     | 5     | 14     | SS50-80        | 59             | 45             |
|     | 7-1/2 | 22     | SS75-80        | 66             | 59             |
|     | 10    | 27     | SS100-80       | 100            | 69             |

### OUTLINE DIMENSIONS



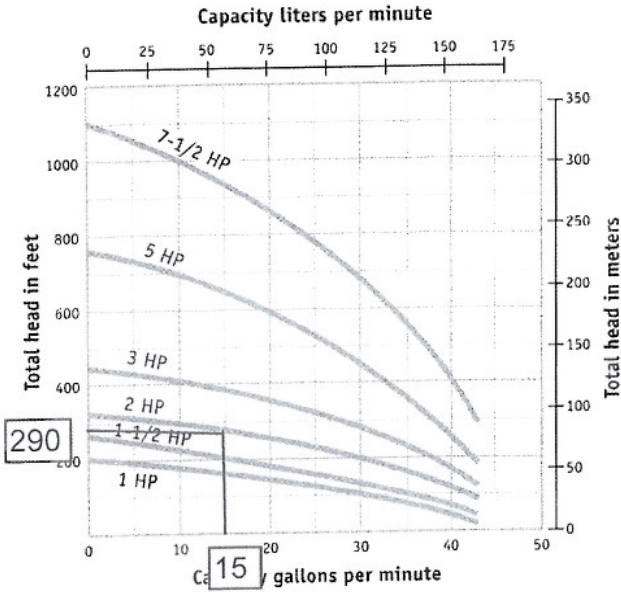
### MOTOR / CONTROL BOX

| HP    | No. of Wires | Volts | PH | PENTEK® Motor  |                |                | PENTEK Control Box Catalog Number |
|-------|--------------|-------|----|----------------|----------------|----------------|-----------------------------------|
|       |              |       |    | Catalog Number | Length Inches* | Weight Pounds* |                                   |
| 1     | 2            | 230   | 1  | P42B0010A2     | 12             | 22             |                                   |
|       | 3            | 230   | 1  | P43B0010A2     | 12             | 22             | SMC-CR1021                        |
| 1-1/2 | 2            | 230   | 1  | P42B0015A2     | 15             | 30             |                                   |
|       |              | 230   | 1  | P43B0015A2     | 14             | 27             | SMC-CR1521                        |
|       | 3            | 230   | 3  | P43B0015A3     | 13             | 23             | SMC-CR1521                        |
| 2     | 3            | 230   | 1  | P43B0020A2     | 15             | 29             | SMC-CR2021                        |
|       |              | 230   | 3  | P43B0020A3     | 14             | 27             | SMC-CR2021                        |
| 3     | 3            | 230   | 1  | P43B0030A2     | 24             | 49             | SMC-CR3021                        |
|       |              | 230   | 3  | P43B0030A3     | 21             | 40             | SMC-CR3021                        |
| 5     | 3            | 230   | 1  | P43B0050A2     | 30             | 66             | SMC-CR5021                        |
|       |              | 230   | 3  | P43B0050A3     | 24             | 50             | SMC-CR5021                        |
| 7-1/2 | 3            | 230   | 3  | P43B0075A3     | 30             | 66             | SMC-CR7521                        |

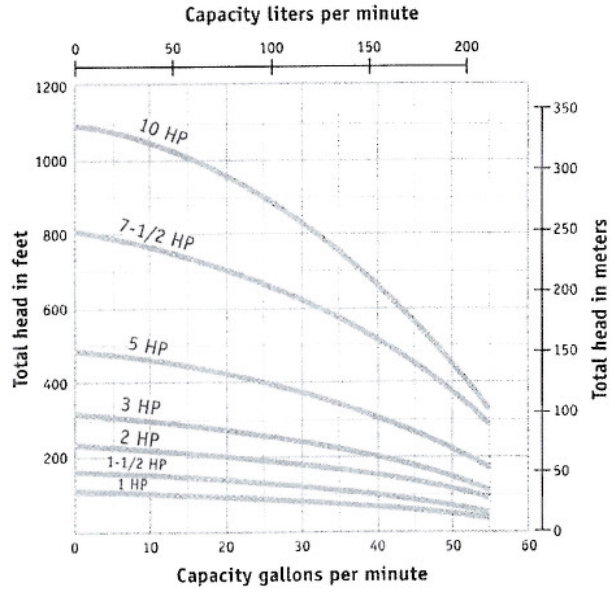
\*Length and weight are approximate.

138 = 60 PSI  
 117 = STATIC WATER LEVEL  
 0' = DRAWDOWN  
 255' = TOTAL

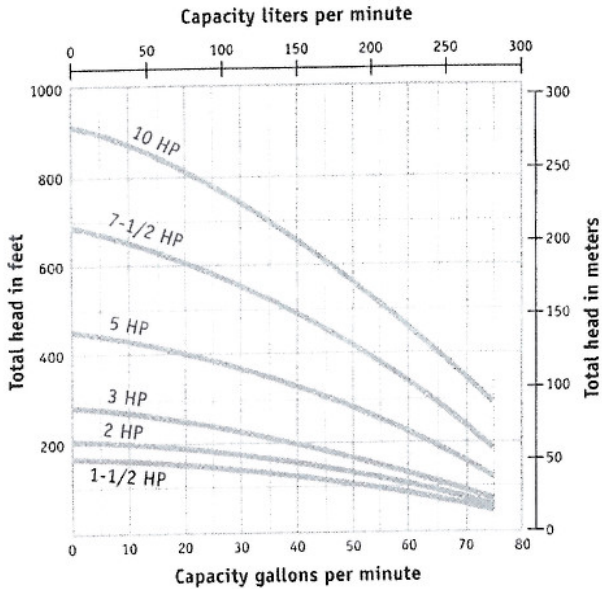
### PUMP PERFORMANCE - 25 GPM



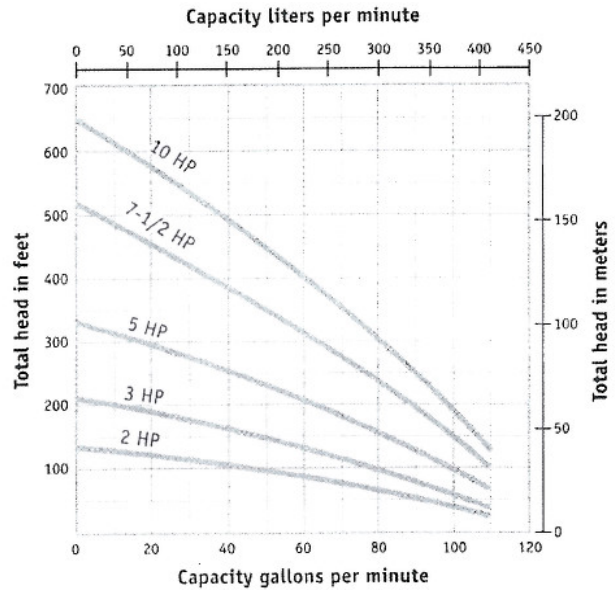
### PUMP PERFORMANCE - 35 GPM



### PUMP PERFORMANCE - 50 GPM



### PUMP PERFORMANCE - 80 GPM





**THE RANGER™ 4" SUBMERSIBLE PUMPS**

**SUBMERSIBLE PUMPS**

**PUMP PERFORMANCE**

| HP                           | Catalog Number | Tank Pressure  | Pumping Depth in Feet |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
|------------------------------|----------------|----------------|-----------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----|----|--|
|                              |                |                | 0                     | 20        | 40       | 60       | 80       | 100      | 120      | 140      | 160      | 180      | 200      | 250      | 300      | 350      | 400      | 450      | 500      | 550      | 600      | 650      | 700      | 750      | 800      | 850 |    |  |
| <b>25 GALLONS PER MINUTE</b> |                |                |                       |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 1                            | SS10-25        | 20/40<br>30/50 | 35<br>30              | 31<br>28  | 27<br>22 | 22<br>17 | 18<br>12 | 11       |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 1-1/2                        | SS15-25        | 20/40<br>30/50 | 36                    | 33        | 33<br>30 | 30<br>27 | 27<br>23 | 23<br>20 | 20<br>15 | 15       |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 2                            | SS20-25        | 20/40<br>30/50 |                       |           | 38       | 36       | 36<br>33 | 33<br>31 | 31<br>27 | 28<br>24 | 25<br>20 | 21<br>16 | 17       |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 3                            | SS30-25        | 20/40<br>30/50 |                       |           |          |          |          |          | 36       | 34       | 32       | 30       | 33<br>28 | 30<br>22 | 25<br>15 | 18       |          |          |          |          |          |          |          |          |          |     |    |  |
| 5                            | SS50-25        | 20/40<br>30/50 |                       |           |          |          |          |          |          |          |          |          | 38       | 37<br>36 | 34<br>33 | 31<br>30 | 28<br>27 | 25<br>24 | 22<br>16 | 18       | 13       |          |          |          |          |     |    |  |
| 7-1/2                        | SS75-25        | 20/40<br>30/50 |                       |           |          |          |          |          |          |          |          |          |          |          | 39       | 37       | 36       | 34       | 32       | 30       | 28       | 27       | 26       | 24       | 23       | 19  | 16 |  |
| <b>35 GALLONS PER MINUTE</b> |                |                |                       |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 1                            | SS10-35        | 20/40<br>30/50 | 37<br>25              | 25        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 1-1/2                        | SS15-35        | 20/40<br>30/50 | 49<br>42              | 43<br>34  | 35<br>26 | 28<br>15 |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 2                            | SS20-35        | 20/40<br>30/50 |                       | 50        | 46<br>40 | 41<br>33 | 35<br>26 | 27<br>16 |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 3                            | SS30-35        | 20/40<br>30/50 |                       |           | 49       | 46<br>45 | 42<br>37 | 38<br>33 | 33<br>26 | 27<br>21 | 15       |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 5                            | SS50-35        | 20/40<br>30/50 |                       |           |          |          |          |          | 49       | 47       | 45       | 43       | 39<br>36 | 32<br>28 | 23<br>18 |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 7-1/2                        | SS75-35        | 20/40<br>30/50 |                       |           |          |          |          |          |          |          |          |          |          | 50<br>49 | 47<br>46 | 44<br>43 | 40<br>38 | 36<br>34 | 32<br>24 | 27<br>16 |          |          |          |          |          |     |    |  |
| 10                           | SS100-35       | 20/40<br>30/50 |                       |           |          |          |          |          |          |          |          |          |          |          | 51<br>49 | 49<br>48 | 48<br>47 | 46<br>45 | 43<br>42 | 40<br>39 | 38<br>37 | 35<br>34 | 32<br>30 | 29<br>27 | 25<br>23 |     |    |  |
| <b>50 GALLONS PER MINUTE</b> |                |                |                       |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 1-1/2                        | SS15-50        | 20/40<br>30/50 | 65<br>55              | 56<br>45  | 46<br>34 | 37<br>20 |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 2                            | SS20-50        | 20/40<br>30/50 | 70<br>64              | 63<br>55  | 56<br>47 | 47<br>40 | 40<br>29 | 30       |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 3                            | SS30-50        | 20/40<br>30/50 | 70                    | 70<br>64  | 64<br>60 | 60<br>55 | 55<br>49 | 50<br>44 | 44<br>35 | 36<br>29 |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 5                            | SS50-50        | 20/40<br>30/50 |                       |           |          | 72<br>70 | 70<br>66 | 67<br>64 | 64<br>60 | 61<br>57 | 57<br>54 | 54<br>50 | 51<br>46 | 41<br>36 | 30<br>23 |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 7-1/2                        | SS75-50        | 20/40<br>30/50 |                       |           |          |          |          |          |          | 70<br>67 | 67<br>65 | 65<br>63 | 60<br>58 | 55<br>53 | 49<br>46 | 43<br>40 | 35<br>32 |          |          |          |          |          |          |          |          |     |    |  |
| 10                           | SS100-50       | 20/40<br>30/50 |                       |           |          |          |          |          |          |          |          |          | 68<br>67 | 65<br>63 | 61<br>59 | 58<br>56 | 53<br>51 | 48<br>46 | 44<br>42 | 39<br>37 | 33<br>30 |          |          |          |          |     |    |  |
| <b>80 GALLONS PER MINUTE</b> |                |                |                       |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 2                            | SS20-80        | 20/40<br>30/50 | 75<br>58              | 56<br>40  | 40       |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 3                            | SS30-80        | 20/40<br>30/50 | 93<br>81              | 81<br>71  | 72<br>60 | 60<br>48 | 50<br>37 |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 5                            | SS50-80        | 20/40<br>30/50 | 100                   | 101<br>94 | 94<br>80 | 87<br>80 | 80<br>72 | 72<br>62 | 63<br>58 | 57<br>50 | 49<br>40 | 40       |          |          |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 7-1/2                        | SS75-80        | 20/40<br>30/50 |                       |           | 104      | 100      | 96       | 91       | 87       | 82       | 77       | 72       | 60<br>67 | 45<br>39 |          |          |          |          |          |          |          |          |          |          |          |     |    |  |
| 10                           | SS100-80       | 20/40<br>30/50 |                       |           |          |          | 104      | 97       | 95       | 93       | 89       | 84       | 72<br>70 | 68<br>65 | 58<br>55 |          |          |          |          |          |          |          |          |          |          |     |    |  |





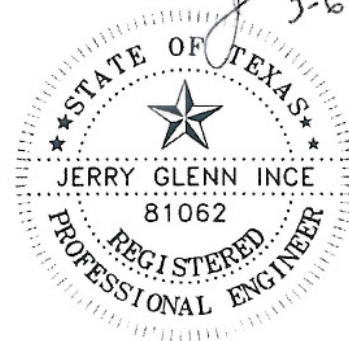
## SANITARY SURVEY

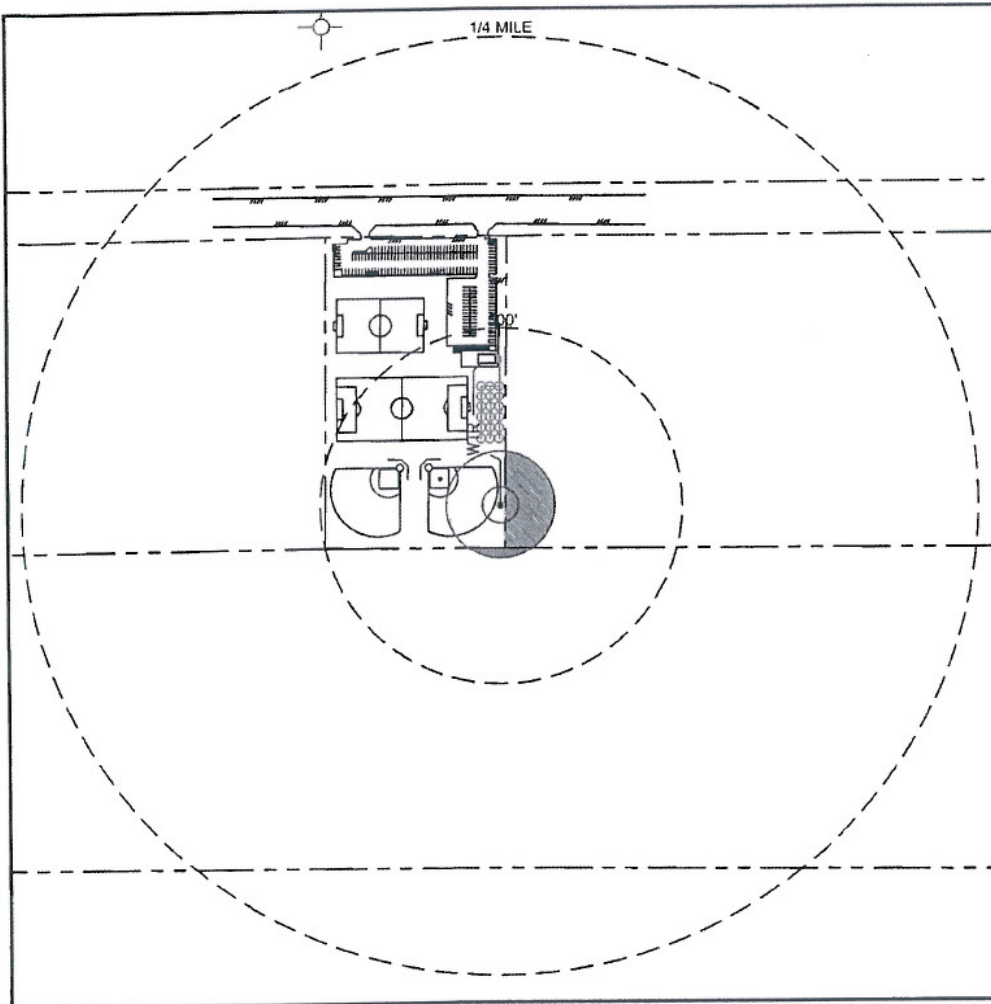
**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018

**SANITARY SURVEY  
FOR  
STRAIGHT WALL WATER WELL  
HARLEM PARK SPORTS FACILITIES, FORT BEND COUNTY, TX**

The following is based on the engineer's personal observation of the site and is true to the extent of his knowledge gained by a visual inspection of the site.

- Within 50'**      No Tile or concrete sanitary sewers  
No Sewerage appurtenances  
No Septic tanks or other tanks used to hold or treat sewage  
No Storm sewers  
No Cemeteries.  
No Livestock or feedlots
- Within 150'**      No septic tank perforated drain fields  
No Areas irrigated by low dosage, low angle spray  
on-site sewage facilities  
No Absorption beds  
No Evapotranspiration beds  
No Improperly constructed water wells  
No Underground petroleum or chemical storage tanks  
No Liquid petroleum transmission pipelines.  
No Landfill and dump sites  
No Military and Industrial facilities  
No sewage-wet wells  
No Sewage pumping stations  
No Ditches containing industrial waste discharges or the waste from sewage  
treatment systems.  
No sewage treatment plants  
No Animal feed lots  
No Lands on which sewage plant or septic tank sludge is applied  
No Lands irrigated by sewage plant effluent, nor solid waste disposal sites
- Within 300'**      No sewage-wet wells  
No Sewage pumping stations  
No Ditches containing industrial waste discharges or the waste from sewage  
treatment systems.
- Within 500'**      No sewage treatment plants  
No Animal feed lots  
No Lands on which sewage plant or septic tank sludge  
is applied  
No Lands irrigated by sewage plant effluent, nor solid  
waste disposal sites.
- Within ¼ mile**      The following abandoned or inoperable wells and  
potential pollutant hazards have been identified.
1. None





THE FOLLOWING IS BASED ON AERIAL IMAGERY AND DATABASE RESEARCH CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER AND IS TRUE TO THE EXTENT OF HIS KNOWLEDGE GAINED BY A VISUAL INSPECTION OF THESE RESOURCES.

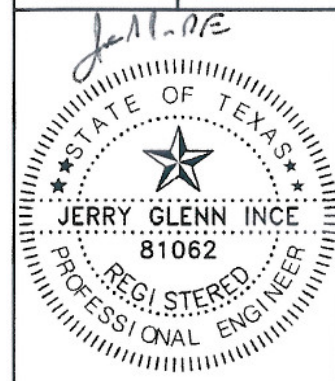
- Within 50'** No Tile or concrete sanitary sewers
  - No Sewerage appurtenances
  - No Septic tanks or other tanks used to hold or treat sewage
  - No Storm sewers
  - No Cemeteries.
  - No Livestock or feedlots
- Within 150'** No septic tank perforated drain fields
  - No Areas irrigated by low dosage, low angle spray on-site sewage facilities
  - No Absorption beds
  - No Evapotranspiration beds
  - No Improperly constructed water wells
  - No Underground petroleum or chemical storage tanks
  - No Liquid petroleum transmission pipelines.
  - No Landfill and dump sites
  - No Military and Industrial facilities
  - No sewage-wet wells
  - No Sewage pumping stations
  - No Ditches containing industrial waste discharges or the waste from sewage treatment systems.
  - No sewage treatment plants
  - No Animal feed lots
  - No Lands on which sewage plant or septic tank sludge is applied
  - No Lands irrigated by sewage plant effluent, nor solid waste disposal sites
- Within 300'** No sewage-wet wells
  - No Sewage pumping stations
  - No Ditches containing industrial waste discharges or the waste from sewage treatment systems.
- Within 500'** No sewage treatment plants
  - No Animal feed lots
  - No Lands on which sewage plant or septic tank sludge is applied
  - No Lands irrigated by sewage plant effluent, nor solid waste disposal sites.
- Within 1/4 mile** The following abandoned or inoperable wells and potential pollutant hazards have been identified.

# W|G|A

WARD, GETZ & ASSOCIATES, LLP  
 CONSULTING ENGINEERS  
 TEXAS FIRM REGISTRATION No. 9756  
 2500 Tangleville, Suite 301  
 Houston, Texas 77063  
 713.780.1900

HARLEM PARK SPORTS FACILITIES  
 PWS NO. UNASSIGNED  
 FORT BEND COUNTY, TX

## SANITARY SURVEY



3-6-12

DESIGN: JGI

DRAWN: EDC





**SANITARY CONTROL EASEMENT REQUESTS**

**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018



October 16, 2017

Dompier, Sandra Smith  
1900 West Loop South STE # 1050  
Houston, TX 77027-3295

Certified Mailing Receipt # 7017 1450 0000 5334 5070

Dear Landowner,

Harlem Park Sport Facilities is installing a public water well on their property located at Harlem Rd in Richmond, TX. TCEQ requires public water system owners to request sanitary control of areas within 150' of a proposed Public Water Well. Your property located at 2606 East Highway 90A in Richmond, TX has a portion located within the 150' radius of the well. We are required to request your cooperation in preserving the sanitary integrity of the well by filing an easement with the following restrictions:

Purpose, Restrictions, and Uses of Easement:

1. The purpose of this easement is to protect the water supply of the well described and located below by means of sanitary control.
2. The construction, existence, and/or operation of the following within a 150-foot radius of the well described and located below are prohibited: septic tank or sewage treatment perforated drainfields; areas irrigated by low dosage, low angle spray on-site sewage facilities; absorption beds; evapotranspiration beds; abandoned, inoperative or improperly constructed water wells of any depth; underground petroleum and chemical storage tanks or liquid transmission pipelines; sewage treatment plants; sewage wet wells; sewage pumping stations; drainage ditches which contains industrial waste discharges or wastes from sewage treatment systems; animal feed lots; solid waste disposal sites, landfill and dump sites; lands on which sewage plant or septic tank sludge is applied; lands irrigated by sewage plant effluent; military facilities; industrial facilities; wood-treatment facilities; liquid petroleum and petrochemical production, storage, and transmission facilities; Class 1, 2, 3, and 4 injection wells; pesticide storage and mixing facilities; and all other constructions or operations that could pollute the groundwater sources of the well that is the subject of this easement. For the purpose of this easement, improperly constructed water wells are those wells which do not meet the surface and subsurface construction standards for a public water supply well.
3. The construction, existence and/or operation of tile or concrete sanitary sewers, sewer appurtenances, septic tanks, storm sewers, cemeteries, and/or the existence of livestock in pastures is specifically prohibited within a 50-foot radius of the water well described and located below.

Ward, Getz & Associates, LLP  
2500 Tanglewilde, Suite 120  
Houston, TX 77063  
713.789.1900

4. This easement permits the construction of homes or buildings upon the Grantor's property, and farming and ranching operations, as long as all items in Restrictions Nos. 2 and 3 are recognized and followed.

Please respond to Ward, Getz & Associates, LLP, within 30 days, at the address below to inform us of your intentions. If you are willing to participate, we will draft this document for you and pay any cost for notarization and filing fees at the county clerk.

\_\_\_\_\_ YES, we are willing to participate in this effort.

\_\_\_\_\_ NO, we are NOT willing to participate in this effort.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

Thank you for your participation in these efforts.  
Sincerely,



Evan Chatman  
Ward, Getz & Associates, LLP



October 16, 2017

RES/VLS Real Est. LTD Partnership  
1900 West Loop South STE # 1050  
Houston, TX 77027-3295

Certified Mailing Receipt # 7017 1450 0000 5334 5063

Dear Landowner,

Harlem Park Sport Facilities is installing a public water well on their property located at Harlem Rd in Richmond, TX. TCEQ requires public water system owners to request sanitary control of areas within 150' of a proposed Public Water Well. Your property located at 1015 Harlem Rd in Richmond, TX has a portion located within the 150' radius of the well. We are required to request your cooperation in preserving the sanitary integrity of the well by filing an easement with the following restrictions:

Purpose, Restrictions, and Uses of Easement:

1. The purpose of this easement is to protect the water supply of the well described and located below by means of sanitary control.
2. The construction, existence, and/or operation of the following within a 150-foot radius of the well described and located below are prohibited: septic tank or sewage treatment perforated drainfields; areas irrigated by low dosage, low angle spray on-site sewage facilities; absorption beds; evapotranspiration beds; abandoned, inoperative or improperly constructed water wells of any depth; underground petroleum and chemical storage tanks or liquid transmission pipelines; sewage treatment plants; sewage wet wells; sewage pumping stations; drainage ditches which contains industrial waste discharges or wastes from sewage treatment systems; animal feed lots; solid waste disposal sites, landfill and dump sites; lands on which sewage plant or septic tank sludge is applied; lands irrigated by sewage plant effluent; military facilities; industrial facilities; wood-treatment facilities; liquid petroleum and petrochemical production, storage, and transmission facilities; Class 1, 2, 3, and 4 injection wells; pesticide storage and mixing facilities; and all other constructions or operations that could pollute the groundwater sources of the well that is the subject of this easement. For the purpose of this easement, improperly constructed water wells are those wells which do not meet the surface and subsurface construction standards for a public water supply well.
3. The construction, existence and/or operation of tile or concrete sanitary sewers, sewer appurtenances, septic tanks, storm sewers, cemeteries, and/or the existence of livestock in pastures is specifically prohibited within a 50-foot radius of the water well described and located below.

Ward, Getz & Associates, LLP  
2500 Tanglewilde, Suite 120  
Houston, TX 77063  
713.789.1900

4. This easement permits the construction of homes or buildings upon the Grantor's property, and farming and ranching operations, as long as all items in Restrictions Nos. 2 and 3 are recognized and followed.

Please respond to Ward, Getz & Associates, LLP, within 30 days, at the address below to inform us of your intentions. If you are willing to participate, we will draft this document for you and pay any cost for notarization and filing fees at the county clerk.

YES, we are willing to participate in this effort.  
 NO, we are NOT willing to participate in this effort.

\_\_\_\_\_  
Authorized Signature  
\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Thank you for your participation in these efforts.  
Sincerely,



Evan Chatman  
Ward, Getz & Associates, LLP



7017 1450 0000 5334 5070

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| Certified Mail Fee<br>\$   | Postmark<br>Here<br><br>RECEIVED<br>OCT 16 2017 |
| Extra Services & Fees (check box, add fee as appropriate)<br><input type="checkbox"/> Return Receipt (hardcopy) \$ _____<br><input type="checkbox"/> Return Receipt (electronic) \$ _____<br><input type="checkbox"/> Certified Mail Restricted Delivery \$ _____<br><input type="checkbox"/> Adult Signature Required \$ _____<br><input type="checkbox"/> Adult Signature Restricted Delivery \$ _____ |   |
| Postage<br>\$  |   |
| Total Postage and Fees<br>\$   |   |
| Sent To<br>Street and Apt. No., or PO Box No.<br>City, State, ZIP+4®   |   |

Sent To: **Dampier, Sandra Smith**  
 Street and Apt. No., or PO Box No.: **1900 West Loop South STE #1050**  
 City, State, ZIP+4®: **Houston, TX 77027**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7017 1450 0000 5334 5070

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**OFFICIAL USE**

|  |   |
|--|---|
| Certified Mail Fee<br>\$   | Postmark<br>Here<br><br>RECEIVED<br>OCT 16 2017 |
| Extra Services & Fees (check box, add fee as appropriate)<br><input type="checkbox"/> Return Receipt (hardcopy) \$ _____<br><input type="checkbox"/> Return Receipt (electronic) \$ _____<br><input type="checkbox"/> Certified Mail Restricted Delivery \$ _____<br><input type="checkbox"/> Adult Signature Required \$ _____<br><input type="checkbox"/> Adult Signature Restricted Delivery \$ _____ |   |
| Postage<br>\$  |   |
| Total Postage and Fees<br>\$   |   |
| Sent To<br>Street and Apt. No., or PO Box No.<br>City, State, ZIP+4®   |   |

Sent To: **RES/MLS Real Est. LTD Partnership**  
 Street and Apt. No., or PO Box No.: **1900 West Loop South STE #1050**  
 City, State, ZIP+4®: **Houston, TX 77027-3215**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



**WARRANTY DEED**

**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018

9308383

2491 256

**GENERAL WARRANTY DEED**

AS PER ORIGINAL

**Date:** February 10, 1993

**Grantor:** RUSA Inc., a Texas corporation

**Grantor's Mailing Address:**

2600 Southwest Freeway, Suite 710  
Houston, Texas 77098

**Grantee:** Fort Bend County

**Grantee's Mailing Address:**

P.O. Box 368  
Richmond, Texas 77469

Attn: Roy L. Cordes, Jr., County Judge

**Consideration:**

Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

**Property (including any improvements):**

See legal description as described in Exhibit "A" attached hereto and incorporated herein for all purposes.

**Reservations from and Exceptions to Conveyance and Warranty:**

This conveyance is made and accepted subject to the reservations, covenants and other encumbrances set forth on Exhibit "B" attached hereto, but only to the extent they are still in effect and shown of record in the hereinabove mentioned county and state, and to all zoning laws, regulations and ordinances of municipal and/or other governmental authorities, if any, but only to the extent that they are still in effect and relate to the Property.

30057121.1 020893 1537c 92094105

1

AS PER ORIGINAL

Grantor, for the consideration and subject to the reservations from and exceptions to conveyance and warranty, grants, sells, and conveys to Grantee the property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever. Grantor binds Grantor and Grantor's heirs, executors, administrators, and successors to warrant and forever defend all and singular the property to Grantee and Grantee's heirs, executors, administrators, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty.

When the context requires, singular nouns and pronouns include the plural.

EXECUTED to be effective as of the date first set forth above.

RUSA, INC.

By:

Jose Solomon Chidan, President

THE STATE OF TEXAS §  
§  
COUNTY OF HARRIS §

This instrument was acknowledged before me on the 10 day of February, 1993, by Jose Solomon Chidan, President of RUSA, Inc., a Texas corporation, on behalf of said corporation.

Notary Public in and for the State of Texas

Printed Name: J. A. BANKER

Commission Expires: 12-16-96



## EXHIBIT "A"

Field Notes for a 10.00 acre tract of land out of a 29.4190 acre tract of land being a part of an 85.89 acre tract of land described in deed J. R. Farmer to S. K. Frost, Trustee, recorded in Volume 188, Page 626, Deed Records Fort Bend County, Texas, all being in the William Morton 1-1/2 League, Abstract 62, Fort Bend County, Texas.

COMMENCING at an axle found on the West right-of-way line of Harlem Road at the Northeast corner of said 29.4190 acre tract, same being the Northeast corner of the aforementioned 85.89 acre tract described, in Deed, J.R. Farmer to S. K. Frost, Trustee, recorded in Volume 188, Page 626, Deed Records;

THENCE South 00 deg. 30 min. 00 sec. West along the West right-of-way line of Harlem Road, 964.40 feet to a 1/2-inch Iron Pipe set for the Northeast corner and PLACE OF BEGINNING of the herein described 10.00 acre tract;

THENCE North 89 deg. 31 min. 09 sec. West along the line establishing the North line of the herein described tract, 876.53 feet to a 1/2-inch Iron Pipe set in the West line of said 29.4190 acre tract for the Northwest corner of the herein described 10.00 acre tract;

THENCE South 00 deg. 42 min. 00 sec. West along the West line of said 29.4190 acre tract, 496.47 feet to a 1-inch Iron Rod found at the Southwest corner of said 29.4190 acres tract, same being the Northwest corner of a certain adjoining Called 49.5 acre Tract described in Deed recorded in Volume 307, Page 408, Fort Bend County Deed Records, for the Southwest corner of the herein described 10.00 acre tract;

THENCE South 89 deg. 31 min. 09 sec. East along the common line of the said 29.4190 acre tract and the aforementioned adjoining Called 49.5 acre tract, 878.26 feet to a 1-inch Iron Rod found on the West right-of-way line of Harlem Road for the Southeast corner of the herein described 10.00 acre tract, same being the Southeast corner of the said 29.4190 acre tract and the Northeast corner of the aforementioned called 49.5 acre tract;

THENCE North 00 deg. 30 min. 00 sec. East along the East right-of-way line of Harlem Road, 496.47 feet to the Place of Beginning and containing 10.00 acres of land, more or less.

EXHIBIT B

- 1. All oil, gas and other minerals, as set forth by instrument recorded in Volume 1540, Page 337 of the Official Records of Fort Bend County, Texas

FILED

'93 FEB 11 P3:50

*Shirley Wilson*  
 COUNTY CLERK  
 FORT BEND COUNTY, TEX.

STATE OF TEXAS COUNTY OF FORT BEND  
 I, hereby certify that this instrument was filed on  
 the date and time stamped hereon by me and was  
 duly recorded in the volume and page of the Official  
 Records of Fort Bend County, Texas as stamped  
 on me.

FEB 15 1993

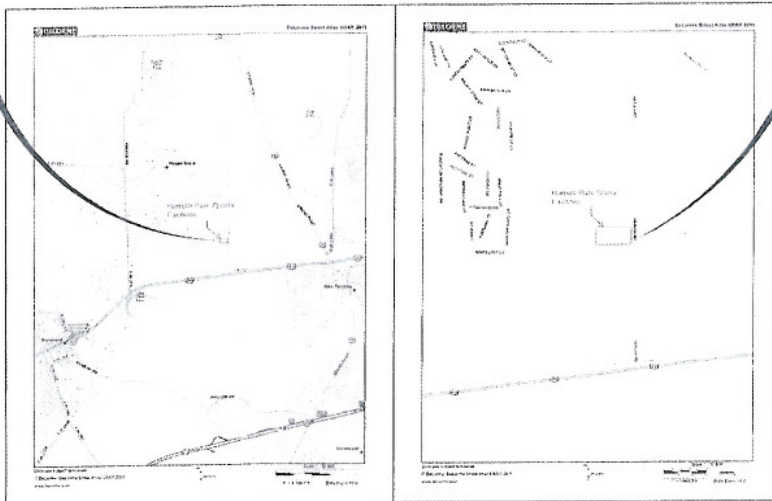


*Shirley Wilson*  
 County Clerk, Fort Bend Co., Tex.

Ret. Bruce Donaldson  
 County Attorney

CONSTRUCTION DESIGN  
OF  
PUBLIC WATER SYSTEM NO. UNASSIGNED  
FOR  
HARLEM PARK SPORTS FACILITIES  
ON BEHALF OF  
FORT BEND COUNTY PARKS  
IN  
FORT BEND COUNTY, TEXAS

PROJECT LOCATION



PROJECT LOCATION

**DRAWING INDEX**

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W-CO-2 GENERAL NOTES

**LAYOUTS**

W-CO-3 PRELIMINARY REQUIREMENTS FOR REVIEW  
W-CO-4 WELL & CONDUIT SYSTEM LAYOUT  
W-CO-5 WATER SYSTEM CONSTRUCTION

**DETAILS**

W-CO-6 WATER WELL & AIRSPREADER DETAILS  
W-CO-7 GROUND STORAGE TANK DETAILS  
W-CO-8 HYDRO-PNEUMATIC PRESSURE TANK DETAILS

**GENERAL NOTES**

The contractor is responsible for making the Texas State GIS system before it begins.

The contractor shall verify pipe materials in the field and use appropriate materials to ensure no service interruption.

See Engineering data for design electrical system for transmission.

VICINITY MAP  
MARCH 2018

**W|G|A**  
WARD, GETZ & ASSOCIATES, LLP  
CONSULTING ENGINEERS  
TEXAS FIRM REGISTRATION No. 9756  
2500 Langleville, Suite 301  
Houston, Texas 77065  
713.780.1900



*JME*  
3-6-18

**WATERLINES**

- 1. The water main shall be installed in accordance with the Texas Department of Transportation (TxDOT) Rules and Regulations for Public Works Systems, Section 303.005, Administrative Code (M.C. 11) Chapter 50.00 (S.D. 50.00)
2. The primary, secondary, and lifting systems shall be installed in accordance with the specifications of the manufacturer.
3. Water used in an additional system shall be of safe drinking quality. Water used for fire protection shall be of a quality equivalent to that of safe drinking water.
4. The shall be installed in accordance with the specifications of the manufacturer.
5. No temporary tank facilities shall be installed within the street or public way.
6. The construction, installation, protection, and lining of a well shall be in accordance with the specifications of the manufacturer.
7. The casing material used in the construction of a well shall be installed in accordance with the specifications of the manufacturer.
8. The space between the casing and the well hole shall be sealed in using cement mortar to prevent leakage of surface water and to prevent air from entering the well.
9. All water shall be of safe drinking quality and shall be of a quality equivalent to that of safe drinking water.
10. Safeguards shall be taken to prevent possible contamination of the water supply.
11. Upon final completion, or when a casing well has been installed, the well shall be identified in accordance with the city's water main map.

**HYDRO-PNEUMATIC PRESSURE TANKS**

- 1. These tanks shall be installed in accordance with the Texas Department of Transportation (TxDOT) Rules and Regulations for Public Works Systems, Section 303.005, Administrative Code (M.C. 11) Chapter 50.00 (S.D. 50.00)
2. All hydro-pneumatic tanks shall be installed above ground and must be of steel construction with welded joints except for pressure vessels for air or other construction materials.
3. Metal fasteners for pressure tanks shall be selected to withstand the thermal expansion and contraction of the tank.
4. All pressure tanks shall be provided with a pressure gauge and a pressure relief valve.
5. Facilities shall be provided for monitoring the air content of the tank.
6. Hydro-pneumatic pressure tanks shall be protected against corrosion.
7. Pressure tanks shall be equipped with a pressure relief valve.
8. Pressure relief valves shall be equipped with a pressure relief valve.
9. Associated appurtenances including safety valves and piping shall be installed in accordance with the specifications of the manufacturer.
10. All public water supply tanks and pressure maintenance facilities shall be installed in accordance with the specifications of the manufacturer.

**CHEMICAL STORAGE**

- 1. Flammable, combustible, and toxic materials shall be stored in accordance with the Texas Department of Transportation (TxDOT) Rules and Regulations for Public Works Systems, Section 303.005, Administrative Code (M.C. 11) Chapter 50.00 (S.D. 50.00)
2. Flammable and combustible liquids shall be stored in accordance with the specifications of the manufacturer.
3. Flammable and combustible gases shall be stored in accordance with the specifications of the manufacturer.
4. Flammable and combustible solids shall be stored in accordance with the specifications of the manufacturer.
5. Flammable and combustible materials shall be stored in accordance with the specifications of the manufacturer.
6. Flammable and combustible materials shall be stored in accordance with the specifications of the manufacturer.
7. Flammable and combustible materials shall be stored in accordance with the specifications of the manufacturer.
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9. Flammable and combustible materials shall be stored in accordance with the specifications of the manufacturer.
10. Flammable and combustible materials shall be stored in accordance with the specifications of the manufacturer.

| NO. | DESCRIPTION           | DATE | STATUS | APPROVED | REVISION |
|-----|-----------------------|------|--------|----------|----------|
| 1   | REVISIONS TO THE PLAN |      |        |          |          |
| 2   | REVISIONS TO THE PLAN |      |        |          |          |
| 3   | REVISIONS TO THE PLAN |      |        |          |          |
| 4   | REVISIONS TO THE PLAN |      |        |          |          |
| 5   | REVISIONS TO THE PLAN |      |        |          |          |
| 6   | REVISIONS TO THE PLAN |      |        |          |          |
| 7   | REVISIONS TO THE PLAN |      |        |          |          |
| 8   | REVISIONS TO THE PLAN |      |        |          |          |
| 9   | REVISIONS TO THE PLAN |      |        |          |          |
| 10  | REVISIONS TO THE PLAN |      |        |          |          |
| 11  | REVISIONS TO THE PLAN |      |        |          |          |
| 12  | REVISIONS TO THE PLAN |      |        |          |          |

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER, THE STATE ENGINEER, AND THE FEDERAL AGENCY.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY ENGINEER, THE STATE ENGINEER, AND THE FEDERAL AGENCY.

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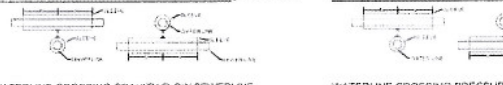
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**WIGA**  
WARD, GERTZ & ASSOCIATES, L.L.P.  
CONSULTING ENGINEERS  
TOTAL FIRM REGISTRATION NO. 758  
1600 Westchase, Suite 801  
Houston, Texas 77057  
(713) 776-3300

HARLEM PARK SPORTS FACILITIES  
PWS NO. UNASSIGNED  
FORT BEND COUNTY, TX



3-6-13  
DESIGN: JGI  
DRAWN: EDC  
W-C0.2  
3/5/2018

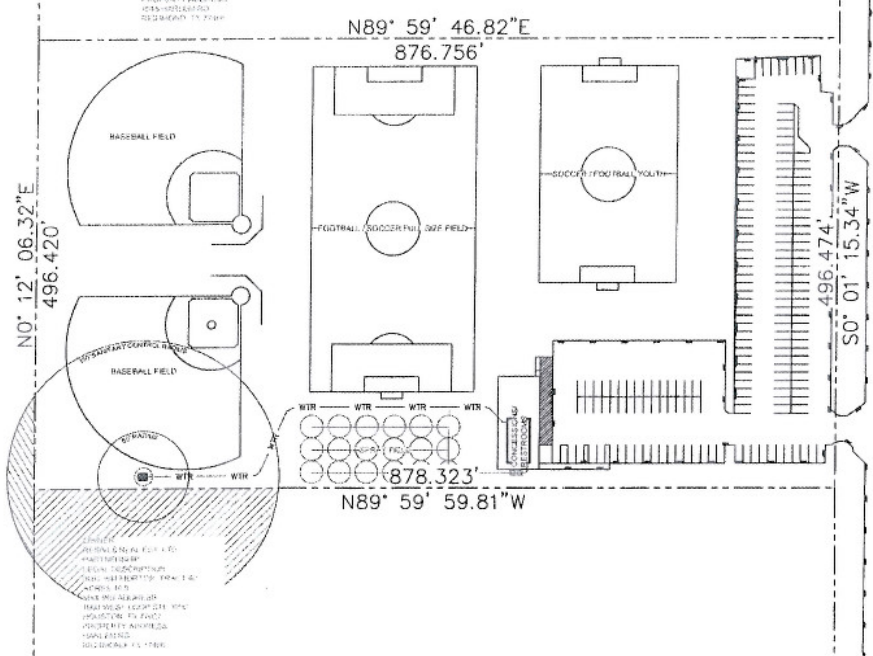


**LEGEND**

- SLEEVE
- POTABLE WATER LINES
- WASTE WATER PIPING
- STORM SEWER PIPING
- PROPERTY BOUNDARIES LINE
- EDGE OF PAVEMENT



DATE: 03/15/2018  
 DRAWN BY: JGG  
 CHECKED BY: JGG  
 PROJECT: HARLEM PARK SPORTS FACILITIES  
 SHEET: 1 OF 1



OWNER: HARLEM PARK SPORTS FACILITIES  
 12000 W. HARLEM ROAD  
 FORT BEND COUNTY, TX 78426

DESIGNER: JERRY GLENN INCE  
 12000 W. HARLEM ROAD  
 FORT BEND COUNTY, TX 78426  
 LICENSE NO. 81062

**W|G|A**

WARD, GRETZ & ASSOCIATES, LLP  
 CONSULTING ENGINEERS  
 TEXAS EXAM REGISTRATION NO. 8174  
 2500 Longview Blvd #411  
 Houston, TX 77058  
 TEL: 281.440.1000

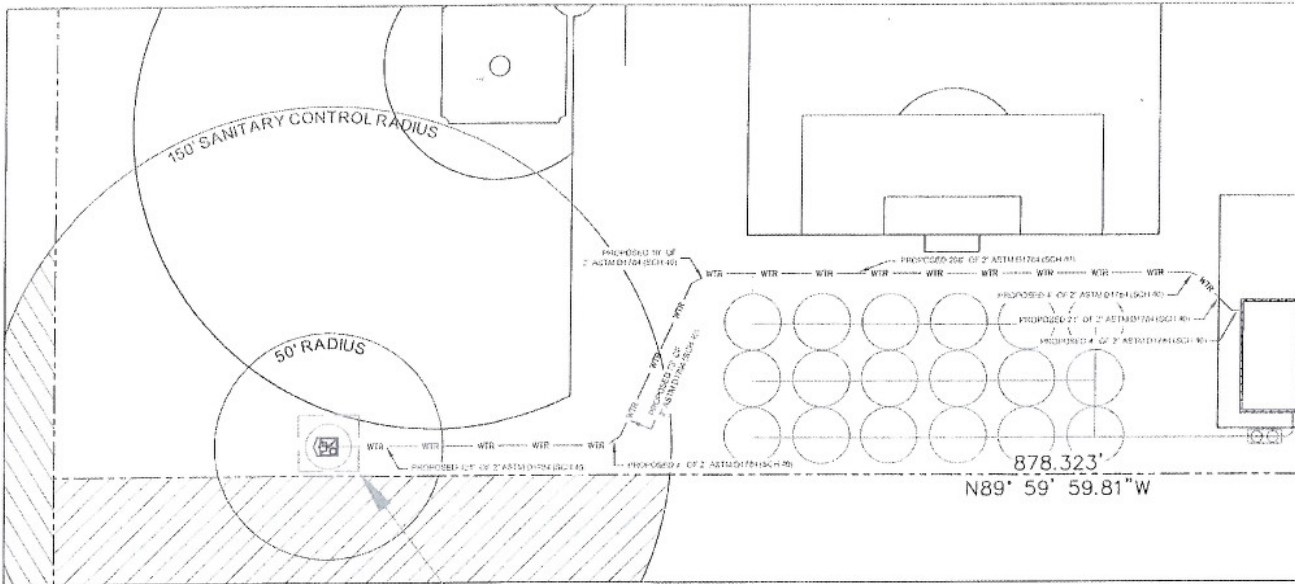
HARLEM PARK SPORTS FACILITIES  
 PWS NO. UNASSIGNED  
 FORT BEND COUNTY, TX

PROPERTY BOUNDARIES OVERVIEW

SCALE: 1" = 100'

DESIGN: JGI  
 DRAWN: JGG

W-C1.0  
 3/5/2018

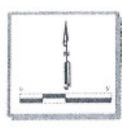
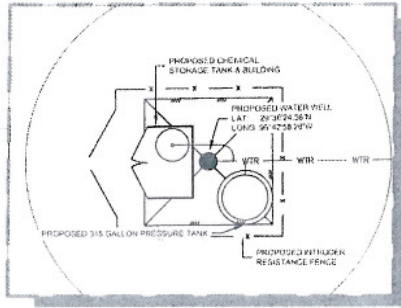


**WIGA**  
 WARD, GETZ & ASSOCIATES, LLP  
 2500 Tenthredine, Suite 201  
 Houston, Texas 77019  
 Telephone: 713.781.1900  
 Fax: 713.781.1900

HARLEM PARK SPORTS FACILITIES  
 PWS NO. UNASSIGNED  
 FOR BEND COUNTY, TX

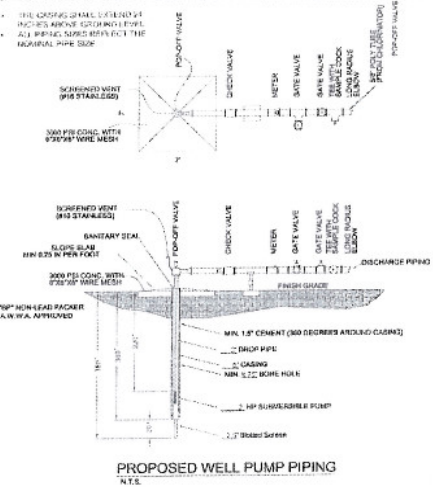
WATER SYSTEM OVERVIEW

- LEGEND**
- SLEEVE
  - POTABLE WATER LINES
  - WASTE WATER PIPING
  - STORM SEWER PIPING
  - PROPERTY BOUNDARIES LINE
  - EDGE OF PAVEMENT

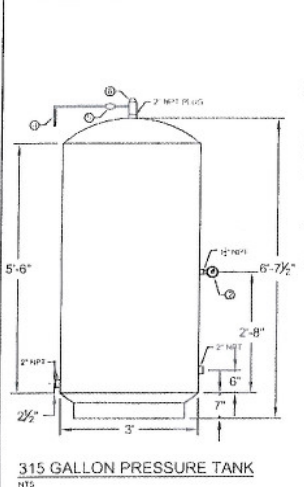


SCALE: 1" = 40'  
 DESIGN: JGI  
 DRAWN: EDC

W-C1.1  
 3/5/2018

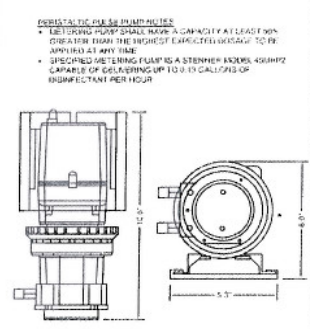


**PROPOSED WELL PUMP PIPING**  
N.T.S.

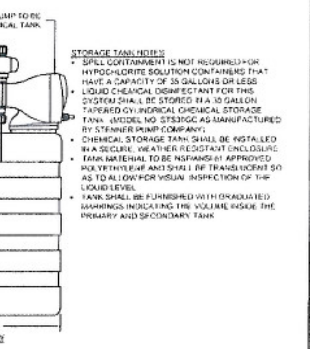


**315 GALLON PRESSURE TANK**  
N.T.S.

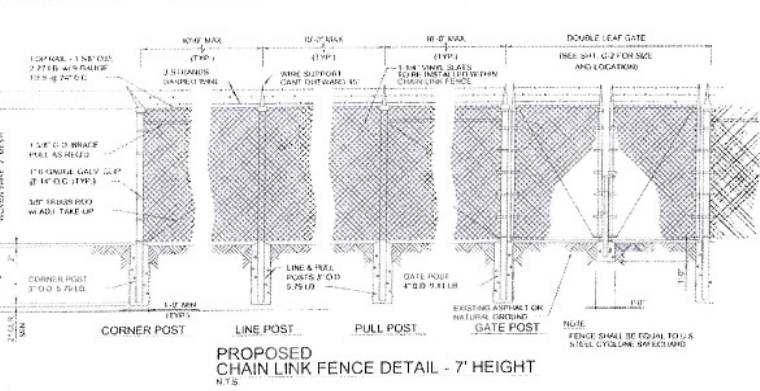
- PRESSURE TANK NOTES**
- CONTRACTOR TO INSTALL NEW 10 GAL. GALVANNEED HYDRO-PNEUMATIC PRESSURE TANK (MODEL NO. PC 315 AS SHOWN ADJUSTED BY PERMA TANK OR EQUAL).
  - TANK SHALL BE EQUIPPED WITH AN EASILY READABLE PRESSURE GAUGE.
  - NO SIGN TO ASS OR SOURCE TREATMENT INDICATORS REQUIRED FOR TANKS UNDER 1000 GALLONS.
  - A CONNECTION WITH A SUITABLE AIR COMPRESSOR SHALL BE PROVIDED TO MAINTAIN THE AIR-WATER VOLUME AT THE DESIGN WATER LEVEL AND WORKING PRESSURE.
  - AIR INJECTION LINES MUST BE EQUIPPED WITH FILTERS OR OTHER DEVICES TO PREVENT COMPRESSOR LUBRICANTS AND OTHER CONTAMINANTS FROM ENTERING THE TANK. TANK SHALL BE EQUIPPED WITH A PRESSURE RELEASE DEVICE.




**PROPOSED PERISTALTIC PULSE PUMP**  
N.T.S.



**PROPOSED 30 GALLON CHEMICAL STORAGE TANK**  
N.T.S.



**PROPOSED CHAIN LINK FENCE DETAIL - 7' HEIGHT**  
N.T.S.



**WARD, GETZ & ASSOCIATES, LLP**  
REGISTERED PROFESSIONAL ENGINEERS  
TEXAS REGISTRATION NO. 0000000000  
1000 TEXAS HIGHWAY, SUITE 300  
DALLAS, TEXAS 75201-1000


---

**HARLEM PARK SPORTS FACILITIES**  
PWS NO. UNASSIGNED  
FORT BEND COUNTY, TX

---

**WATER WELL & MISCELLANIES DETAILS**

---



Just 3-6-20

DESIGN: JGI  
DRAWN: EDC

W-C-2.0  
3/5/2018



**SITE PLAN & DRAWINGS**

**Public Water System No. Unassigned**  
Harlem Park Sports Facilities  
March 2018



**GEOTECHNICAL EXPLORATION**

**PROPOSED HARLEM ROAD SPORTS COMPLEX**

701 Harlem Road  
Richmond, TX  
ALPHA Report No. H181420  
July 2, 2018

Prepared for:

**FORT BEND COUNTY PARKS DEPARTMENT**

9555A Highway 6 South  
Missouri City, TX 77459  
Attention: Mr. Michel Davis

Prepared By:



July 2, 2018

**Fort Bend County Parks Department**  
9555A Highway 6 South  
Missouri City, TX 77459

Attention: Mr. Michel Davis

Re: Geotechnical Exploration  
**Proposed Harlem Road Sports Complex**  
701 Harlem Road  
Richmond, TX  
ALPHA Report No. H181420

Attached is the report of the geotechnical exploration performed for the project referenced above. This study was authorized by Mr. Michel Davis on May 9, 2018 with Purchase Order No. 165461 and performed in accordance with ALPHA Proposal No. 64785-Revised dated April 23, 2018.

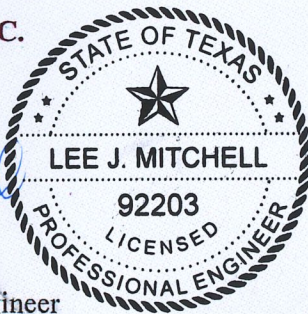
This report contains results of field explorations and laboratory testing and an engineering interpretation of these with respect to available project characteristics. The results and analyses were used to develop design information to aid design and construction of foundations.

ALPHA TESTING, INC. appreciates the opportunity to be of service on this project. If we can be of further assistance, such as providing construction materials testing services, please contact our office.

Sincerely,

**ALPHA TESTING, INC.**

Lee J. Mitchell, P.E.  
Senior Geotechnical Engineer



Mark L. McKay, P.E.  
Director of Geotechnical Engineering

LJM/MLM  
Copies: (1-PDF) Client



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## **1.0 PURPOSE AND SCOPE**

The purpose of this geotechnical exploration is for ALPHA TESTING, INC. (ALPHA) to evaluate for the Client some of the physical and engineering properties of subsurface materials at selected locations on the subject site with respect to formulation of appropriate geotechnical design parameters for the proposed concession and restroom structure. The field exploration was accomplished by securing subsurface samples from two (2) test borings performed at the site. Engineering analyses were performed from results of the field exploration and results of laboratory tests performed on representative samples.

Also included are general comments pertaining to reasonably anticipated construction problems and recommendations concerning earthwork and quality control testing during construction. This information can be used to evaluate subsurface conditions and to aid in ascertaining construction meets project specifications.

Recommendations provided in this report were developed from information obtained in the test boring depicting subsurface conditions only at the specific boring location and at the particular time designated on the log. Subsurface conditions at other locations may differ from those observed at the boring location, and subsurface conditions at the boring location may vary at different times of the year. The scope of work may not fully define the variability of subsurface materials and conditions that are present on the site.

The nature and extent of variations at the project site may not become evident until construction. If significant variations then appear evident, our office should be contacted to re-evaluate our recommendations after performing on-site observations and possibly other tests.

## **2.0 PROJECT CHARACTERISTICS**

We understand the Client is planning to construct a 22 ft by 60 ft, single-story, pre-engineered structure housing concession and restroom facilities. A site plan illustrating the general outline of the property is provided as Figure A-2, the Boring Location Plan, in the Appendix of this report. At the time of the field exploration, the site was open and covered in grass. cursory observations indicate the site is relatively level with little elevation change.

We understand it is generally desired to support the structure using a slab-on-grade foundation system. For the purposes of this investigation, we have assumed fills of 2 ft or less will be required to establish the building pad grade for at-grade slab foundations and that cuts will not be required to establish building pad grades.

## **3.0 FIELD EXPLORATION**

Subsurface conditions on the site were explored by drilling two (2) test borings to a depth of 20 feet each in general accordance with ASTM Standard D 420 using standard rotary drilling equipment. The boring locations were staked by the Client and removed by landscapers prior to our field exploration. The boring locations were subsequently provided verbally by the client. The approximate locations of the test borings are shown on the Boring Location Plan, Figure A-2, enclosed in the Appendix of this report. Details of drilling and sampling operations are briefly summarized in Methods of Field Exploration, Section A-3 of the Appendix.





Subsurface types encountered during the field exploration are presented on the Log of Boring sheet included in the Appendix of this report. The boring logs contain our Field Technician's and Engineer's interpretation of conditions believed to exist between actual samples retrieved. Therefore, the boring logs contain both factual and interpretive information. Lines delineating subsurface strata on the boring logs are approximate and the actual transition between strata may be gradual.

#### **4.0 LABORATORY TESTS**

Selected samples of the subsurface materials were tested in the laboratory to evaluate their engineering properties as a basis in providing recommendations for foundation design and earthwork construction. A brief description of testing procedures used in the laboratory can be found in Methods of Laboratory Testing, Section B-1 of the Appendix. Individual test results are presented on Log of Boring sheet or on summary data sheets also enclosed in the Appendix.

#### **5.0 GENERAL SUBSURFACE CONDITIONS**

##### **5.1 Local Geology**

Based on a review of literature and public maps in our library, as well as our experience, the project site lies within the Coastal Prairies Province of the Gulf Coastal Plains Physiographic Region of Texas and is underlain by soils common to the Beaumont Formation.

The Beaumont Formation is late Pleistocene in age. The Beaumont Formation outcrop covers a large part of the lower coastal plain except where cut by modern river valleys or covered by Holocene wind-blown sand in south Texas. The Beaumont Formation is composed of clay-rich sediments transected by sandy fluvial and deltaic-distributary channels. The Beaumont Formation also includes isolated segments of coast-parallel, sandy beach ridges known as the Ingleside barrier/strandplain system. The Beaumont depositional episode records a continuation of patterns that developed during deposition of the Lissie Formation including high-frequency, glacio-eustatic, sea-level fluctuations, and dominant fluvial sediment input. At sea-level highstand, the position of the Beaumont Formation shoreline approximately coincided with that of the modern shoreline.

The Beaumont Formation ranges in thickness from a thin veneer in updip areas to about 500 feet near the modern coast, and thickens to the northeast. The Beaumont Formation dips coastward from 1 to 10 feet per mile. Individual sands range from 20 to 50 feet thick, stacking locally to reach 150 feet in thickness. Interbedded muddy intervals are generally of similar thickness to the sands. Thicknesses of individual sands increase updip, whereas thicknesses of individual shales increase downdip.

##### **5.2 Subsurface Stratigraphy**

In general, lean clay (CL) soils were observed from the ground surface to the boring termination depth of 20 feet. Silty sand seams were observed within the clay matrix at Boring 1 from a depth of about 12 to 16 feet. At Boring 2, silty sand soils (SM) were encountered between clay layers from a depth of about 12 to 16 feet.



The letters in parenthesis represent the soils' classification according to the Unified Soil Classification System (ASTM D 2488). More detailed stratigraphic information is presented on the Logs of Boring sheet attached to this report.

### **5.3 Depth-to-Water**

The borings were drilled using dry-auger techniques in an attempt to measure depth-to-water in the open borehole. Free water was observed at a depth of about 12 feet below the existing ground surface during drilling and remained static upon completion of drilling.

The granular soils (silty sand) encountered in the borings are considered relatively permeable and are anticipated to have a rapid response to water movement. However, the clay soils encountered in the borings are considered relatively impermeable and are expected to have a relatively slow response to water movement. Therefore, several days of observation would be required to evaluate actual groundwater levels within the depth explored. Also, the groundwater level at the site is anticipated to fluctuate seasonally depending on the amount of rainfall, prevailing weather conditions and subsurface drainage characteristics.

## **6.0 DESIGN RECOMMENDATIONS**

The following design recommendations were developed on the basis of the previously described Project Characteristics (Section 2.0) and General Subsurface Conditions (Section 5.0). If project criteria should change, including structure location on the site, our office should conduct a review to determine if modifications to the recommendations are required. Further, it is recommended our office be provided with a copy of the final plans and specifications for review prior to construction.

The following design criteria given in this report were developed assuming the finish building pad elevation is constructed near existing grade (within 2 ft). Substantial cutting or filling on the site (more than 2 ft) can alter the recommended foundation design parameters. Therefore, it is recommended our office be contacted before performing other cutting and filling on site to verify the appropriate design parameters are utilized for final foundation design.

### **6.1 Slab on Grade Foundation System**

The structure could be supported using a monolithic slab-on-grade foundation system. The slab foundation for the building should be designed with exterior and interior grade beams adequate to provide sufficient rigidity to the foundation system. A net allowable soil bearing pressure of 2.0 kips per sq ft may be used for design of all grade beams bearing on native soils or controlled fill placed as recommended in Section 7.3. Grade beams should bear at a minimum depth of 12 inches below final grade and should have a minimum width of 10 inches considering the above referenced net allowable soil bearing pressure.

To reduce cracking as normal movements occur in foundation soils, all grade beams and the slab foundation should be adequately reinforced with steel (conventional reinforcing steel and/or post-tension reinforcement). However, it is common to experience some minor cosmetic distress to structures with slab-on-grade foundation systems due to normal ground movements. A properly designed and constructed moisture barrier should be placed between the slabs and subgrade soils to retard moisture migration through the slabs.



## **6.2 Potential Seasonal Movements**

A slab foundation supported within 2 feet of existing grade could experience soil-related potential seasonal movements of up to 1 inch. This potential seasonal movement was estimated in general accordance with methods outlined by Texas Department of Transportation (TxDOT) Test Method Tex-124-E, swell test results, engineering judgment, and experience. Estimated movements have been calculated assuming the moisture content of the in-situ soil within the normal zone of seasonal moisture content change varies between a “dry” condition and a “wet” condition as defined by Tex-124-E. Also, it was assumed a 1 psi surcharge load from the floor slab acts on the subgrade soils. Movements exceeding those predicted above could occur if positive drainage of surface water is not maintained or if soils are subject to an outside water source, such as leakage from a utility line or subsurface moisture migration from off-site locations.

In general, soil-related potential seasonal movements on the order of about 1 inch are considered acceptable by local structural engineers. It should be noted however, that the use of any floor slab-on-grade will experience some movement associated with seasonal moisture variations. In choosing this type of slab system, the Owner is accepting some post construction movement (about 1 inch) of the slab. This potential movement is based on any fill placed within the building pad area consisting of on-site clayey sand or lean clay (or similar imported materials), with a plasticity index of 20 or less, and meeting other general requirements discussed in Section 7.3 below. Fill with a plasticity index greater than 20 in the building pad will increase potential slab movements and should not be utilized.

The use of a vapor retarder should be considered beneath interior concrete floor slabs in areas with moisture sensitive flooring. When conditions warrant the use of a vapor retarder, the slab designer and slab contractor should refer to ACI 302 for procedures and cautions about the use and placement of a vapor retarder.

## **6.3 Seismic Considerations**

The Site Class for seismic design is based on several factors that include soil profile (soil or rock), shear wave velocity, and strength, averaged over a depth of 100 ft. Since our borings did not extend to a 100-foot depth, we based our determinations on the assumption that the subsurface materials below the bottom of the borings were similar to those encountered at the termination depth of the borings. Based on Section 1613.3.2 of the 2012 International Building Code and Table 20.3-1 in the 2010 ASCE-7, we recommend using Site Class D (stiff soil) for seismic design at this site.

## **6.4 Flatwork**

Flatwork, pavement, and any other soil-supported structural elements will be subjected to the same level of movement as discussed in Section 6.2. If this level of movement is not acceptable, we are available to provide recommendations to reduce subgrade movements upon request.

## **6.5 Drainage and Other Considerations**

Adequate drainage should be provided to reduce seasonal variations in the moisture content of foundation soils. All pavement and sidewalks within 5 ft of the structure should be sloped away from the building to prevent ponding of water around the foundations. Final grades within 5 ft of



the structure should be adjusted to slope away from the structure at a minimum slope of 2 percent. Maintaining positive surface drainage throughout the life of the structures is essential.

In areas with pavement or sidewalks adjacent to the new structure, a positive seal must be maintained between the structure and the pavement or sidewalk to minimize seepage of water into the underlying supporting soils. Post-construction movement of pavement and flat-work is common. Normal maintenance should include examination of all joints in paving and sidewalks, etc. as well as re-sealing where necessary.

Several factors relate to civil and architectural design and/or maintenance, which can significantly affect future movements of the foundation and floor slab system:

- Preferably, a complete system of gutters and downspouts should carry runoff water a minimum of 5 feet from the completed structures.
- Large trees and shrubs should not be allowed closer to the foundations than a horizontal distance equal to roughly one-half of their mature height due to their significant moisture demand upon maturing.
- Moisture conditions should be maintained "constant" around the edge of the slabs. Ponding of water in planters, in unpaved areas, and around joints in paving and sidewalks can cause slab movements beyond those predicted in this report.
- Planter box structures placed adjacent to the building should be provided with a means to assure concentrations of water are not available to the subsoil stratigraphy.

Trench backfill for utilities should be properly placed and compacted as outlined in Section 7.3 of this report and in accordance with requirements of local City standards. Since granular bedding backfill is used for most utility lines, the backfilled trench should not become a conduit and allow access for surface or subsurface water to travel toward the new structures. Concrete cut-off collars or clay plugs should be provided where utility lines cross building lines to prevent water from traveling in the trench backfill and entering beneath the structures.

## **7.0 GENERAL CONSTRUCTION PROCEDURES AND GUIDELINES**

Variations in subsurface conditions could be encountered during construction. To permit correlation between test boring data and actual subsurface conditions encountered during construction, it is recommended a registered Professional Engineering firm be retained to observe construction procedures and materials.

Some construction problems, particularly degree or magnitude, cannot be anticipated until the course of construction. The recommendations offered in the following paragraphs are intended not to limit or preclude other conceivable solutions, but rather to provide our observations based on our experience and understanding of the project characteristics and subsurface conditions encountered in the borings.



## 7.1 Site Preparation and Grading

All areas supporting foundations, pavement, flatwork, or areas to receive new fill should be properly prepared.

- After completion of the necessary stripping, clearing, and excavating and prior to placing any required fill, the exposed soil subgrade should be carefully evaluated by probing and testing. Any undesirable material (organic material, wet, soft, or loose soil) still in place should be removed.
- The exposed soil subgrade should be further evaluated by proof-rolling with a heavy pneumatic tired roller, loaded dump truck or similar equipment weighing approximately 20 tons to check for pockets of soft or loose material hidden beneath a thin crust of possibly better soil.
- Proof-rolling procedures should be observed routinely by a Professional Engineer, or his designated representative. Any undesirable material (organic material, wet, soft, or loose soil) exposed during the proofroll should be removed and replaced with well-compacted material as outlined in Section 7.3.
- Prior to placement of any fill, the exposed soil subgrade should then be scarified to a minimum depth of 6 inches and recompacted as outlined in Section 7.3.

If fill is to be placed on existing slopes (natural or constructed) steeper than six horizontal to one vertical (6:1), the fill materials should be benched into the existing slopes in such a manner as to provide a minimum bench-key width of five (5) ft. This should provide a good contact between the existing soils and new fill materials, reduce potential sliding planes, and allow relatively horizontal lift placements.

Slope stability analysis of embankments (natural or constructed) was not within the scope of this study.

The contractor is responsible for designing any excavation slopes, temporary sheeting or shoring. Design of these structures should include any imposed surface surcharges. Construction site safety is the sole responsibility of the contractor, who shall also be solely responsible for the means, methods and sequencing of construction operations. The contractor should also be aware that slope height, slope inclination or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state and/or federal safety regulations, such as OSHA Health and Safety Standard for Excavations, 29 CFR Part 1926, or successor regulations. Stockpiles should be placed well away from the edge of the excavation and their heights should be controlled so they do not surcharge the sides of the excavation. Surface drainage should be carefully controlled to prevent flow of water over the slopes and/or into the excavations. Construction slopes should be closely observed for signs of mass movement, including tension cracks near the crest or bulging at the toe. If potential stability problems are observed, a geotechnical engineer should be contacted immediately. Shoring, bracing or underpinning required for the project (if any) should be designed by a professional engineer registered in the State of Texas.



Due to the nature of the clayey soils found near the surface at the borings, traffic of heavy equipment (including heavy compaction equipment) may create pumping and general deterioration of shallow soils. Therefore, some construction difficulties should be anticipated during periods when these soils are saturated.

## **7.2 Foundation Excavations**

All foundation excavations should be properly monitored to verify loose, soft, or otherwise undesirable materials are removed and foundations will bear on satisfactory material. Soil exposed in the base of all foundation (grade beam) excavations should be protected against detrimental change in condition, such as surface sloughing, side disturbance, rain, or excessive drying.

Surface runoff should be drained away from excavations and not allowed to pond in the bottom of the excavation. Concrete for foundations should be placed as soon as practical after the excavation is made. That is, the exposed foundation soils should not be allowed to become excessively dry or wet before placement of concrete. All concrete for foundations should be placed as soon as practical after the excavation is made.

Prolonged exposure of the bearing surface to air or water will result in changes in strength and compressibility of the bearing stratum. Therefore, if delays occur, grade beams for slab foundations should be slightly deepened to provide a fresh bearing surface.

## **7.3 Fill Compaction**

**Select Fill (Non-Expansive Fill):** Select fill used as non-expansive fill should have a liquid limit less than 40, a plasticity index (PI) not less than 4 nor greater than 20. Select fill should not contain deleterious material and debris. Select fill should be compacted to a dry density of at least 95 percent of standard Proctor maximum dry density (ASTM D 698) and within the range of -1 to +3 percentage points of the material's optimum moisture content. The plasticity index and liquid limit of material used as select, non-expansive fill should be verified during fill placement using laboratory tests.

**Flexible Base Material (Non-Expansive Fill):** Flexible base material used as non-expansive fill for the building pad area should meet the requirements of TxDOT Item 247, Type A or D, Grade 1-2. The material should be compacted to a minimum 95 percent of standard Proctor maximum dry density (ASTM D 698) and within -2 to +3 percentage points of the material's optimum moisture content.

The following recommendations pertain to fill placement and compaction for general site grading outside the building pad area.

Clay soils used for general fill with a plasticity index less than 25 should be compacted to a dry density of 95 to 100 percent of standard Proctor maximum dry density (ASTM D 698). The compacted moisture content of the clays during placement should be within the range of 0 to +3 percentage points of the material's optimum moisture.

Clay soils used for general fill with a plasticity index equal to or greater than 25 should be compacted to a dry density between 95 and 100 percent of standard Proctor maximum dry density



(ASTM D 698). The compacted moisture content of the clays during placement should be within the range of +1 to +5 percentage points of the material's optimum moisture.

In cases where either mass fills or utility lines are more than 10 ft deep, the fill/backfill below 10 ft should be compacted to at least 100 percent of standard Proctor maximum dry density (ASTM D 698) and within - 2 to +2 percentage points of the material's optimum moisture content. The portion of the fill/backfill shallower than 10 ft should be compacted as outlined above. Even if fill is properly compacted, fills in excess of about 10 ft are still subject to settlements over time of up to about 1 to 2 percent of the total fill thickness. This should be considered when designing utility lines under pavements and/or wall backfill.

Clay fill should be processed and the largest particle or clod should be less than 6 inches prior to compaction.

Compaction should be accomplished by placing fill in about 8-inch thick loose lifts and compacting each lift to at least the specified minimum dry density. Field density and moisture content tests should be performed on each lift.

#### **7.4 Groundwater**

Free water was encountered at a depth of 12 feet at the boring locations. However, from our experience with similar soils, groundwater seepage could be encountered at shallower depths in excavations for foundations, utility conduits, and other general excavations. The risk of seepage increases with depth of excavation and during or after periods of precipitation. Standard sump pits and pumping may be adequate to control seepage on a local basis for relatively shallow excavations

#### **8.0 LIMITATIONS**

Professional services provided in this geotechnical exploration were performed, findings obtained, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. The scope of services provided herein does not include an environmental assessment of the site or investigation for the presence or absence of hazardous materials in the soil, surface water or groundwater. ALPHA, upon written request, can be retained to provide these services.

ALPHA is not responsible for conclusions, opinions or recommendations made by others based on this data. Information contained in this report is intended for the exclusive use of the Client (and their designated design representatives), and is related solely to design of the specific structures outlined in Section 2.0. No party other than the Client (and their designated design representatives) shall use or rely upon this report in any manner whatsoever unless such party shall have obtained ALPHA's written acceptance of such intended use. Any such third party using this report after obtaining ALPHA's written acceptance shall be bound by the limitations and limitations of liability contained herein, including ALPHA's liability being limited to the fee paid to it for this report. Recommendations presented in this report should not be used for design of any other structures except those specifically described in this report. In all areas of this report in which ALPHA may provide additional services if requested to do so in writing, it is presumed that such requests have not been made if not evidenced by a written document accepted by ALPHA. Further, subsurface conditions can change with passage of time. Recommendations contained herein are not considered applicable for an extended period of time after the completion date of



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this report. It is recommended our office be contacted for a review of the contents of this report for construction commencing more than one (1) year after completion of this report. Non-compliance with any of these requirements by the Client or anyone else shall release ALPHA from any liability resulting from the use of, or reliance upon, this report.

Recommendations provided in this report are based on our understanding of information provided by the Client about characteristics of the project. If the Client notes any deviation from the facts about project characteristics, our office should be contacted immediately since this may materially alter the recommendations. Further, ALPHA is not responsible for damages resulting from workmanship of designers or contractors. It is recommended the Owner retain qualified personnel, such as a Geotechnical Engineering firm, to verify construction is performed in accordance with plans and specifications.





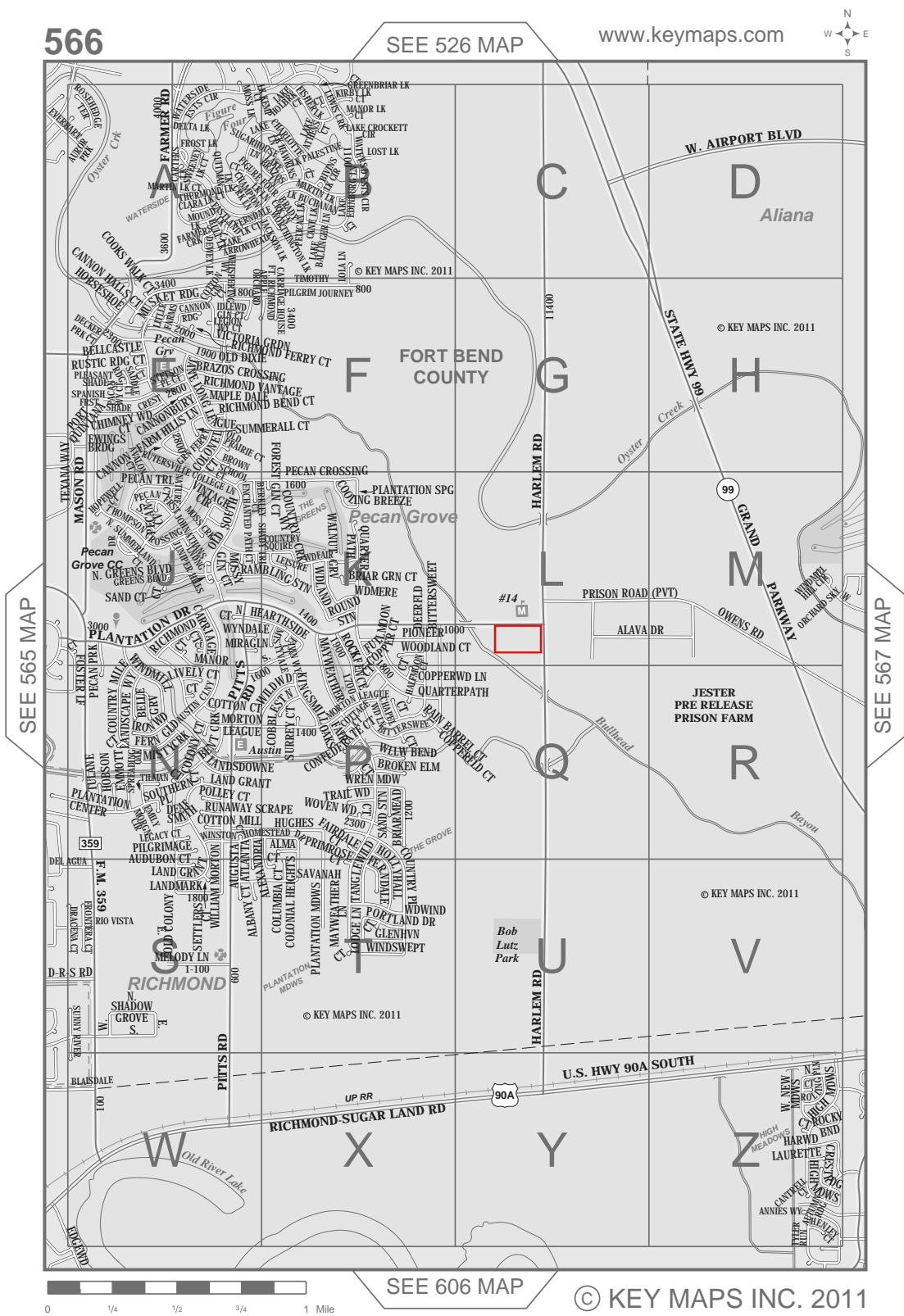
# APPENDIX



WHERE IT ALL BEGINS

CLIENT Fort Bend County Parks Department  
 PROJECT NUMBER H181420

PROJECT NAME Proposed Harlem Road Sports Complex  
 PROJECT LOCATION Richmond, Texas



Key Map used with permission.

FIGURE A-1

CLIENT Fort Bend County Parks Department  
PROJECT NUMBER H181420

PROJECT NAME Proposed Harlem Road Sports Complex  
PROJECT LOCATION Richmond, Texas



Site plan provided by Google Earth.

FIGURE A-2



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### **A-3 METHODS OF FIELD EXPLORATION**

Using standard rotary drilling equipment, two (2) test borings were performed for this geotechnical exploration at the approximate location shown on the Boring Location Plan, Figure A-2. The boring locations provided by verbal instruction by the Client. The locations of the test borings shown on the Boring Location Plan are considered accurate only to the degree implied by the methods used to define them.

Relatively undisturbed samples of the cohesive subsurface materials were obtained by hydraulically pressing 3-inch O.D. thin-wall sampling tubes into the underlying soils at selected depths (ASTM D 1587). These samples were removed from the sampling tubes in the field and examined visually. One representative portion of each sample was sealed in a plastic bag for use in future visual examinations and possible testing in the laboratory.

Representative samples of the subsurface materials were obtained employing split-spoon sampling procedures in general accordance with ASTM Standard D 1586. Disturbed samples were obtained at selected depths in the borings by driving a standard 2-inch outside diameter split-spoon sampler 18 inches into the subsurface material using a 140-pound hammer falling 30 inches. The number of blows required to drive the split-spoon sampler the final 12 inches of penetration (N-value) is recorded in the appropriate column on the boring logs presented in Appendix A of this report.

Logs of all borings are included in the Appendix of this report. The logs show visual descriptions of subsurface strata encountered using the Unified Soil Classification System. Sampling information, pertinent field data, and field observations are also included. Samples not consumed by testing will be retained in our laboratory for at least 14 days and then discarded unless the Client requests otherwise.

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**Client:** Fort Bend County - Facilities Management & Planning  
**Project:** Harlem Road Sports Complex  
**Start Date:** 6/5/2018 **End Date:** 6/5/2018  
**Drilling Method:** Straight Flight Auger

**Location:** Richmond, Texas 77406  
**Surface Elevation:** \_\_\_\_\_  
**Latitude:** Not Determined  
**Longitude:** Not Determined  
**Hammer Drop (lbs / in):** 140/30

| Depth, feet  | Graphic Log | GROUND WATER OBSERVATIONS<br>▼ On Rods (ft): <u>12</u><br>▼ After Drilling (ft): <u>12</u><br>▼ After _____ Hours (ft): _____ | Sample Type | Recovery % | TX Cone or Standard Pen. (blows/ft.in) | Shear Strength (tsf) |         |                        |                                | % Passing No. 200 Sieve | Dry Unit Weight (pcf) | Water Content, % | Liquid Limit | Plastic Limit | Plasticity Index |  |
|--|-------------|---|-------------|------------|--|----------------------|---------|------------------------|--------------------------------|-------------------------|-----------------------|------------------|--------------|---------------|------------------|--|
|  |             |   |             |            |  | Pocket Pen           | Torvane | Unconfined Compression | Unconsolidated Undrained Compr |                         |                       |                  |              |               |                  |  |
| <b>MATERIAL DESCRIPTION</b>  |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 5  |             | <b>LEAN CLAY (CL)</b><br>- very stiff to stiff, reddish brown   | █           |            |  | 1.0                  |         |                        |                                | 99                      | 87                    | 23               | 32           | 18            | 14               |  |
|  |             |   |             |            |  | 0.8                  |         |                        |                                |                         |                       |                  |              |               |                  |  |
|  |             |   |             |            |  | 1.8                  | 0.6     |                        |                                |                         |                       |                  |              |               |                  |  |
|  |             |   |             |            |  | 1.3                  |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 8.0  |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 10   |             | <b>LEAN CLAY with SAND (CL)</b><br>- firm to very stiff, reddish brown, silty sand seams 12 to 16 feet                        | █           |            |  | 0.3                  |         |                        |                                |                         | 22                    |                  |              |               |                  |  |
| 15   |             |   |             |            |  | 1.3                  |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 20   |             |   |             |            |  | 2.0                  |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 20.0   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| BORING TERMINATED AT 20 feet   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| Notes:<br>1- Free water was observed at a depth of 12 ft. during drilling operations and remained static upon completion.<br>2- Backfilled with soil cuttings. |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 25   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 30   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 35   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 40   |             |   |             |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |

FIGURE A-4

Client: Fort Bend County - Facilities Management & Planning  
Project: Harlem Road Sports Complex  
Start Date: 6/5/2018 End Date: 6/5/2018  
Drilling Method: Straight Flight Auger

Location: Richmond, Texas 77406  
Surface Elevation: \_\_\_\_\_  
Latitude: Not Determined  
Longitude: Not Determined  
Hammer Drop (lbs / in): 140/30

| Depth, feet          | Graphic Log | GROUND WATER OBSERVATIONS<br>▽ On Rods (ft): <u>12</u><br>▼ After Drilling (ft): <u>12</u><br>▽ After _____ Hours (ft): _____ | Sample Type   | Recovery % | TX Cone or Standard Pen. (blows/ft.in) | Shear Strength (tsf) |         |                        |                                | % Passing No. 200 Sieve | Dry Unit Weight (pcf) | Water Content, % | Liquid Limit | Plastic Limit | Plasticity Index |  |
|----------------------|-------------|---|---------------|------------|--|----------------------|---------|------------------------|--------------------------------|-------------------------|-----------------------|------------------|--------------|---------------|------------------|--|
|                      |             |   |               |            |  | Pocket Pen           | Torvane | Unconfined Compression | Unconsolidated Undrained Compr |                         |                       |                  |              |               |                  |  |
| MATERIAL DESCRIPTION |             |   |               |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 5                    |             | <b>LEAN CLAY with SAND (CL)</b><br>- very stiff to soft, reddish brown  | [Solid Black] |            |  | 0.5                  |         |                        |                                |                         | 22                    |                  |              |               |                  |  |
|                      |             |   |               |            |  | 2.3                  | 1.0     |                        |                                | 93                      | 17                    |                  |              |               |                  |  |
|                      |             |   |               |            |  | 1.3                  |         |                        |                                | 80                      | 91                    | 19               | 31           | 14            | 17               |  |
|                      |             |   |               |            |  | 1.5                  |         |                        |                                |                         |                       | 19               |              |               |                  |  |
| 10                   |             |   |               |            |  | 1.0                  | 0.2     |                        |                                |                         | 93                    | 21               |              |               |                  |  |
| 15                   |             | <b>SILTY SAND (SM)</b><br>- medium dense, reddish brown   | [X]           |            | 14                                     |                      |         |                        |                                |                         | 20                    |                  |              |               |                  |  |
| 20                   |             | <b>LEAN CLAY with SAND (CL)</b><br>- stiff, reddish brown   | [Solid Black] |            |  | 0.8                  |         |                        |                                |                         | 23                    |                  |              |               |                  |  |
| 25                   |             | BORING TERMINATED AT 20 feet  |               |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 30                   |             | Notes:  |               |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 35                   |             | 1- Free water was observed at a depth of 12 ft. during drilling operations and remained static upon completion.               |               |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |
| 40                   |             | 2- Backfilled with soil cuttings.   |               |            |  |                      |         |                        |                                |                         |                       |                  |              |               |                  |  |

FIGURE A-5



















CLIENT Fort Bend County - Facilities Management & Planning

PROJECT NAME Harlem Road Sports Complex

PROJECT NUMBER H181420

PROJECT LOCATION Richmond, Texas 77406

### SOIL & ROCK SYMBOLS

|   |                            |
|---|----------------------------|
|    | (CH), High Plasticity CLAY |
|    | (CL), Low Plasticity CLAY  |
|    | (SC), CLAYEY SAND          |
|    | (SP), Poorly Graded SAND   |
|    | (SW), Well Graded SAND     |
|    | (SM), SILTY SAND           |
|    | (ML), SILT                 |
|    | (MH), Elastic SILT         |
|    | LIMESTONE                  |
|    | SHALE / MARL               |
|   | SANDSTONE                  |
|  | (GP), Poorly Graded GRAVEL |
|  | (GW), Well Graded GRAVEL   |
|  | (GC), CLAYEY GRAVEL        |
|  | (GM), SILTY GRAVEL         |
|  | (OL), ORGANIC SILT         |
|  | (OH), ORGANIC CLAY         |
|  | FILL                       |

### RELATIVE DENSITY OF COHESIONLESS SOILS (blows/ft)

|            |          |
|------------|----------|
| VERY LOOSE | 0 TO 4   |
| LOOSE      | 5 TO 10  |
| MEDIUM     | 11 TO 30 |
| DENSE      | 31 TO 50 |
| VERY DENSE | OVER 50  |

### SHEAR STRENGTH OF COHESIVE SOILS (tsf)

|            |                |
|------------|----------------|
| VERY SOFT  | LESS THAN 0.25 |
| SOFT       | 0.25 TO 0.50   |
| FIRM       | 0.50 TO 1.00   |
| STIFF      | 1.00 TO 2.00   |
| VERY STIFF | 2.00 TO 4.00   |
| HARD       | OVER 4.00      |






### RELATIVE DEGREE OF PLASTICITY (PI)

|           |          |
|-----------|----------|
| LOW       | 4 TO 15  |
| MEDIUM    | 16 TO 25 |
| HIGH      | 26 TO 35 |
| VERY HIGH | OVER 35  |

### RELATIVE PROPORTIONS (%)

|        |          |
|--------|----------|
| TRACE  | 1 TO 10  |
| LITTLE | 11 TO 20 |
| SOME   | 21 TO 35 |
| AND    | 36 TO 50 |

### SAMPLING SYMBOLS

|   |  |
|---|--|
|  | SHELBY TUBE (3" OD except where noted otherwise) |
|  | SPLIT SPOON (2" OD except where noted otherwise) |
|  | AUGER SAMPLE                                     |
|  | TEXAS CONE PENETRATION                           |
|  | ROCK CORE (2" ID except where noted otherwise)   |

### PARTICLE SIZE IDENTIFICATION (DIAMETER)

|               |                     |
|---------------|---------------------|
| BOULDERS      | 8.0" OR LARGER      |
| COBBLES       | 3.0" TO 8.0"        |
| COARSE GRAVEL | 0.75" TO 3.0"       |
| FINE GRAVEL   | 5.0 mm TO 3.0"      |
| COURSE SAND   | 2.0 mm TO 5.0 mm    |
| MEDIUM SAND   | 0.4 mm TO 5.0 mm    |
| FINE SAND     | 0.07 mm TO 0.4 mm   |
| SILT          | 0.002 mm TO 0.07 mm |
| CLAY          | LESS THAN 0.002 mm  |



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## **B-1 METHODS OF LABORATORY TESTING**

Selected samples were examined and classified by a qualified member of the Geotechnical Division and the boring logs were edited as necessary. To aid in classifying the subsurface materials and to determine the general engineering characteristics, natural moisture content tests (ASTM D 2216), Atterberg-limit tests (ASTM D 4318), and gradation tests (percent of material passing a No. 200 sieve, ASTM D 1140) were performed on select samples. A calibrated pocket penetrometer was used to approximate the unconfined compressive strength as an indicator of soil consistency for all in-tact cohesive samples. Unconfined compression strength tests (ASTM D 2166) were also performed on representative samples. Results of all laboratory tests described above are provided on either the accompanying Log of Boring sheets or on summary data sheets as noted.

In addition to the Atterberg-limit tests, the expansive properties of the clay soils were further analyzed by absorption swell tests (ASTM D 4546). The swell test is performed by placing a selected sample in a consolidation machine and applying either the approximate current or expected overburden pressure and then allowing the sample to absorb water. When the sample exhibits very little tendency for further expansion, the height increase is recorded and the percent free swell and total moisture gain calculated. Results of the absorption swell tests are provided on the Swell Test Data sheet, Figure B-2 included in this appendix.

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CLIENT Fort Bend County - Facilities Management & Planning

PROJECT NAME Harlem Road Sports Complex

PROJECT NUMBER H181420

PROJECT LOCATION Richmond, Texas 77406

| BORING | AVERAGE DEPTH | INITIAL DRY UNIT WEIGHT, pcf | LIQUID LIMIT | PLASTIC LIMIT | PLASTICITY INDEX | INITIAL MOISTURE CONTENT, % | FINAL MOISTURE CONTENT, % | MEASURED PERCENT SWELL | FINAL MOISTURE CONTENT / LL | PL - INITIAL MOISTURE CONTENT |
|--------|---------------|------------------------------|--------------|---------------|------------------|-----------------------------|---------------------------|------------------------|-----------------------------|-------------------------------|
| 1      | 3             | 87.5                         | 32           | 18            | 14               | 22.9                        | 25.7                      | 0.6                    | 0.8                         | -4.9                          |
| 2      | 5             | 90.5                         | 31           | 14            | 17               | 17.4                        | 20.2                      | 0                      | 0.7                         | -3.4                          |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |
|        |               |                              |              |               |                  |                             |                           |                        |                             |                               |

FIGURE B-2