

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
EQUIPMENT AND PROCUREMENT DIVISION  
BID INVITATION**

Bid Number: M-13-033P

**BID OPENING LOCATION:**  
AHTD Equipment and  
Procurement Division  
11302 West Baseline Rd.  
Little Rock, AR 72209

**MAIL TO:**  
AHTD Equipment and  
Procurement Division  
P.O. Box 2261  
Little Rock, AR 72203

**DELIVER TO:**  
AHTD Equipment and  
Procurement Division  
11302 West Baseline Rd.  
Little Rock, AR 72209

Bid Opening Date: January 3, 2013 Time: 11:00 a.m.

Sealed bids for furnishing the commodities and/or services described below, subject to the Conditions on page 2 of this Bid Invitation will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected. Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name: \_\_\_\_\_

Name (Type or Print): \_\_\_\_\_

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

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Federal Tax ID or Social Security No.: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

**Signature:** \_\_\_\_\_

Signature must be legible, original (not photocopied) and in ink.  
Unsigned bids will be rejected.

Item No.	Description	Quantity	Unit	Unit Price	Amount
	<p>Furnish and Install a new Forced Main Sanitary Sewer System for the Arkansas State Highway &amp; Transportation Department Garland County Area Headquarters located at 3602 Albert Pike, Hot Springs, AR 71913 (Job No. 6-77) – complete list attached to and made a part of this bid.</p> <p>The Contractor will be required to attend a preconstruction conference with the City of Hot Springs and AHTD.</p> <p>Contacts for Technical Information: Tony Evans (501-569-2169) or Tim Baber (501-623-1104) Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)</p> <p>To meet the requirements of Arkansas State Highway and Transportation Department Specifications and Plans attached to and made a part of this bid.</p> <p>If any literature and/or specifications of items conflict with AHTD specifications, the conflict(s) shall be specifically noted, corrected and submitted with the bid.</p> <p>Bid price shall include all labor, materials, and equipment necessary to perform the work as specified, and shall further include all licenses, fees, permits, royalties, and <u>all taxes</u>. Bid price shall represent full compensation for completion of the work. This provision supersedes Condition 4 on Page 2 of Bid Invitation. Payment will be made in accordance with Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2003, and applicable Special Provisions.</p> <p><b>Bid Bond</b> in the amount of 5% of total bid price required of all bidders at time of bid opening or bid will be rejected. <b>Personal and company checks are not acceptable as Bid Bonds.</b> See Condition 3 on page 2 of Bid Invitation.</p> <p><b>Performance Bond</b> <u>only</u> (no checks of any kind allowed) in the amount of 100% of total bid price will be required of successful bidder prior to providing goods/services. See Condition 3 on page 2 of Bid Invitation.</p> <p>The successful bidder will be required to complete job within 30 calendar days after notice to begin.</p> <p>Arkansas Contractor's License No. _____. Current Arkansas Contractor's License Number must be listed or bid will be rejected (A.C.A. ¶17-25-101 <i>et seq.</i>).</p> <p>Bids and Specifications are available on-line by going to the AHTD Web Site – <a href="http://www.arkansashighways.com">www.arkansashighways.com</a> and clicking on “Commodities and Services Bids/Contracts Information”. Tabulations will also be available at this site within 72 hours after bid opening. If you have any questions, call this office at 501-569-2667.</p> <p>(36-1214)</p>				

## STANDARD BID CONDITIONS

## M-13-033P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
3. **BID BONDS AND PERFORMANCE BONDS:** If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds.** Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds.** In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.
10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY & TRANSPORTATION DEPARTMENT  
LITTLE ROCK, ARKANSAS  
EQUIPMENT & PROCUREMENT DIVISION

Bid No. M-13-033P

BIDDER: \_\_\_\_\_

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	AMOUNT
1.	Furnish and Install 2" SDR-21 Sewer Forced Main per plans and specifications.	approx. 1300	LF	\$_____	\$_____
2.	Install Duplex Pump Sewer Lift Station per plans provided by AHTD.	1	ea.		\$_____
3.	Install Automatic Air Relief Valve per plans provided by AHTD.	1	ea.		\$_____

LUMP SUM \_\_\_\_\_

**ARKANSAS STATE HIGHWAY  
AND TRANSPORTATION DEPARTMENT**

**NOTICE OF NONDISCRIMINATION**

The Arkansas State Highway and Transportation (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. Nelson Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: [joanna.nelson@arkansashighways.com](mailto:joanna.nelson@arkansashighways.com).

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

**SCOPE**

New Forced Main Sanitary Sewer System is to be installed to serve as Sewer Extension for the new Area Headquarters Building in Hot Springs, Arkansas, as indicated on the Plans, as called for in these Specifications, or as directed by the Engineer. These Specifications and the Plans cover the furnishing of all materials, labor, tools, equipment, machinery, drayage, rigging, fees, permits and any and all incidental items required for the complete Sanitary Sewer Extension.

**DESCRIPTION**

The Forced Main Sanitary Sewer System shall be extended to the City of Hot Springs from the lift station at the facility, where indicated on the Plans or as directed by the Engineer. This work shall include: furnishing and installing lift station (including all electrical work required), piping, encasement pipes, various valves with enclosures, and all other material; all borings and fencing; all labor; and all related items (all for the Garland County Area Headquarters Sanitary Sewer Extension, complete, in place and operating, and ready for use). The Sewer shall be extended to the "City of Hot Springs" from sanitary sewer connections at the facility, where indicated on the Plans or as directed by the Engineer.

**GENERAL CONDITIONS**

The applicable portions of the General Provisions of the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2003, together with applicable Special Provisions, shall govern where appropriate.

**QUALITY OF MATERIAL**

All material, appliances or appurtenances furnished under these Specifications shall be new and unused and shall be free from defects and imperfections. Any material, appliance or appurtenance thereto found to be defective shall be replaced by the Contractor at no cost to the Arkansas Highway and Transportation Department. All material shall comply with the requirements and applicable provisions of the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2003, applicable Special Provisions and these Specifications, the City of Hot Springs and the Arkansas Department of Health requirements where applicable. Any material not covered in the Specifications above shall be approved by the Engineer.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

**SUBSTITUTION OF MATERIAL**

It is intended that the Contractor may have the option of substituting a material or appliance that will perform the function or service equally as well as the one named. The Engineer shall be given written notice two (2) weeks prior to the proposed use of a substitution so that a decision can be made as to the equal merits of the two (2) products. No substituted items shall be installed until written approval is received from the Engineer.

**ACCESS TO THE WORK**

The Engineer or his representatives shall have access to the work at all times, shall be permitted to approach, enter or examine all stages or phases of the work as it progresses, and shall have the authority to reject work which is defective in workmanship or material.

**REQUIRED SUPERVISION**

The Contractor shall keep on the job at all times, when work is in progress, a competent superintendent satisfactory to the Engineer. The superintendent shall represent the Contractor in his absence and all instructions given to him shall be binding on the Contractor. Workmanship shall be by craftsmen skilled in their trade and shall be in accordance with the best standard practice.

**ACCIDENT PREVENTION**

Precaution shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws and building and construction codes shall be observed. Machinery, equipment and other hazards shall be guarded in accordance with safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws. The Contractor shall be responsible for any damage which may be caused by workers during the performance of the work.

**DELIVERY AND PROTECTION OF MATERIALS**

Delivery, protection and acceptance of materials at the work site is the Contractor's responsibility, including any losses due to theft, vandalism or accidental damage.

**CLEAN-UP**

The Contractor shall not allow any waste material or rubbish caused by his employees to accumulate in or about the premises but shall promptly remove same. At completion

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

of the work, all rubbish, tools, scaffolding and surplus materials shall be removed and the Contractor shall leave the site clean and ready to use.

**MATERIALS AND CONSTRUCTION METHODS**

**SEWER LIFT STATION**

Sewer Lift Station shall be as detailed on plan. Basin shall be fiberglass with three-inch (3") anti-flotation collar. Cover shall be 1/2" steel plate with black asphalt coating, vent, and lock. Inlet to be four-inch (4") diameter. Discharge pipe shall be two-inch (2") Schedule 40 stainless steel. Provide four (4) liquid level controls as shown on the Plans. A remote duplex control panel shall be furnished. For each pump there shall be included: combination circuit breaker/overload short circuit protection, reset and disconnect, across the line magnetic contactors, hand-off-auto selector switch, overload relay properly sized to provide motor protection for motor furnished, 120 Volt control panel pilot circuitry, and 120 Volt control transformer with fused overload protector for external pilot circuitry, in addition to the options noted on the Plans.

An automatic electric alternator shall be included to provide alternating operation of the pumps under normal conditions, or simultaneous operation in cases of high levels of liquid in the wet well. High water warning light and audible alarm shall be included to indicate extreme high level of liquid in the wet well. All check valves and gate valves within Lift Station basin shall be included for a complete installation.

**PLASTIC SEWER LINE**

Plastic Sewer Line "carrier piping" inside encasement pipes shall be 2" diameter PVC (SDR-21) or approved equivalent. All PVC (SDR-21) "carrier piping" shall conform to the requirements of the latest revisions of ASTM Specifications D-1784 and D-1785 and ASTM D-2241.

Written compliance of the above materials must be supplied with these materials as a basis of acceptance. This may consist of: (1) a copy of manufacturer's test report, or (2) a statement by the seller with a copy of test results that the material has been sampled, tested, and inspected. Certification shall be signed by an authorized agent of the seller or manufacturer, and a copy of this certification shall be supplied to the owner for a permanent record.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

PLASTIC ENCASEMENT PIPE

Plastic Encasement Pipe if required shall be 4" PVC (Schedule 40) or approved equivalent. All PVC (SCH. 40) Encasement Pipe and fittings shall conform to the requirements of the latest revisions of ASTM Specifications D-1784 and D-1785 and AWWA Standard C900. Written compliance must be supplied with this material as a basis of acceptance. This may consist of: (1) a copy of manufacturer's test report, or (2) a statement by the seller with a copy of test results that the material has been sampled, tested, and inspected. Certification shall be signed by an authorized agent of the seller or manufacturer, and a copy of this certification shall be supplied to the Department for a permanent record.

GATE VALVE IN HEAVY DUTY VALVE BOX

Gate Valve shall be 2", of bronze construction with rising stem configuration. Box shall be Heavy Duty, constructed of materials as required by the Arkansas Department of Health and shall be of such strength of design as to allow vehicular traffic across it. The size of the Box shall be large enough to accommodate equipment to be installed, as indicated on the Plans, including the servicing and removal of the equipment. Cover to be stamped with "Sewer" for identification.

CHECK VALVE IN HEAVY DUTY VALVE BOX

Check Valve shall be 2", of bronze construction. Box shall be Heavy Duty, constructed of materials as required by the Arkansas Department of Health and shall be of such strength of design as to allow vehicular traffic across it. The size of the Box shall be large enough to accommodate equipment to be installed, as indicated on the Plans, including the servicing and removal of the equipment. Cover to be stamped with "Sewer" for identification

AUTOMATIC AIR/VACUUM RELIEF VALVE IN HEAVY DUTY BOX

Automatic Air/Vacuum Relief Valve shall be of cast iron body with stainless steel floats, stem and guide bushing construction and designed for use in raw sewage (the entire valve shall withstand 500 psi test). The valve shall allow unrestricted venting or re-entry of air through it, during filling or draining of the force main to prevent vacuum. Air Relief Valve shall be APCO Model Series 400 or approved equivalent and meet approval of the Arkansas Department of Health. Box shall be Heavy Duty, constructed of materials as required by the Arkansas Department of Health and shall be of such strength of design as to allow vehicular traffic across it. The size of the Box shall be large enough to accommodate equipment to be installed, as Indicated on the Plans, including the servicing and removal of the equipment. Cover to be stamped with "Sewer" for identification.



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

**INSTALLATION**

SEWER LIFT STATION

The Sewer Lift Station and all related items shall be installed as shown on the Plans or as directed by the Engineer and in accordance with manufacturer's recommendations and the Arkansas Department of Health requirements. Inlet connection shall be made to existing sanitary sewer from building as indicated on the Plans.

Electrical service shall be connected to new Lift Station, including new panel, as indicated on the Plans. All electrical work shall be in accordance with National Electrical Code, latest edition, and is to be subsidiary to this item.

PLASTIC FORCE MAIN SEWER LINE

The Plastic Sewer Line shall be buried a minimum of 3'-0" as measured to top of pipe. Backfill of 6" of select material above and below the pipe flow-line (total of 12" surrounding the pipe) shall be a sandy material free of rock or gravel, and shall meet the material requirements for AWWA C605. The top of the backfill shall be raked smooth and shall fall in the same plane as the adjacent, undisturbed areas. Concrete reaction blocks shall be installed at all directional changes of 45 degrees or more, as detailed and indicated on the Plans. Reaction blocks and compaction of earthwork shall be subsidiary to these items.

At installation, the Plastic Sewer Line shall be sufficiently marked to make them distinguishable. Pipes shall be labeled at twenty-foot (20') intervals, with one-inch (1") high letters in a color contrasting to the pipe color. Tracer (locator) wire shall be provided and installed parallel and adjacent to the Plastic Sewer Line.

The Plastic Sewer Line "carrier piping" to be installed inside encasement pipes shall be continuous without joints/connections.

PLASTIC ENCASEMENT PIPE

The Plastic Encasement Pipes shall be installed to encase the sewer at the locations indicated on the Plans or as required and directed by the Engineer. The Encasement Pipes shall be filled with sand, and/or casing spacers shall be installed, where required and open-ended to allow for expansion of the sewer inside. Sand and/or casing spacers used in Encasement Pipes shall be subsidiary to this item.

Encasement Pipes that are to be installed by borings shall be where shown and as indicated on the Plans or directed by the Engineer. Bores shall be directional and shall

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

include full length encasements (or casings) for "carrier piping". Annular openings at each end of Encasement Pipes, between encasement and "carrier piping", shall be sealed by a method approved by the Arkansas State Health Department. Limits of the bores shall be as indicated on the Plans. Borings for these (when required) shall be subsidiary to this item.

**GATE VALVE IN HEAVY DUTY BOX**

The Gate Valves shall be of freeze-proof installation in Heavy Duty Boxes where shown on the Plans or as directed by the Engineer. Installation shall be such that the Valves may be operated by hand, or with actuator extensions supplied by this Contractor, when Box covers are removed. Ground surrounding Boxes shall be raked smooth and blend with surrounding contour of ground for a smooth appearance. Drainage shall be provided to allow rain and condensation to be drained from Boxes naturally.

**CHECK VALVE IN HEAVY DUTY BOX**

The Check Valves shall be of freeze-proof installation in Heavy Duty Boxes where shown on the Plans or as directed by the Engineer. Ground surrounding Boxes shall be raked smooth and blend with surrounding contour of ground for a smooth appearance. Drainage shall be provided to allow rain and condensation to be drained from Boxes naturally.

**AUTOMATIC AIR/VACUUM RELIEF VALVE IN HEAVY DUTY BOX**

The Automatic Air/Vacuum Relief Valves shall be of freeze-proof installation and installed in Heavy Duty Boxes at high points of the lines where shown on the Plans or as directed by the Engineer. Installation shall conform to the requirements of the Arkansas Department of Health. The Air/Vacuum Relief Valves shall prevent air locking and vacuum. Unions to be installed to facilitate removal of Valves. Valves to be accessible with Box covers removed. Ground surrounding Boxes shall be raked smooth and blend with surrounding contour of ground for a smooth appearance. Drainage shall be provided to allow rain and condensation to be drained from Boxes naturally. Also, all two-inch (2") and one-inch (1") pipe reducers, and miscellaneous fittings for these Valves shall be subsidiary to this item.

**LEAK TESTING**

After all piping has been laid, the Sewer shall be hydrostatically tested for leakage by filling the lines and increasing the testing pressure to 150% of the working pressure. The duration of the leakage test shall be not less than two (2) hours, or as required by the Local Utility. All testing for leaks shall in accordance with AWWA C605, or by the Local Utility.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 6-77  
GARLAND COUNTY AREA HEADQUARTERS  
SANITARY SEWER EXTENSION**

**WARRANTY**

All materials and workmanship shall be warranted against defects for a period of one (1) year from date of acceptance by the Arkansas Highway and Transportation Department. The Warranty of the materials by the supplier shall be in writing to the Contractor, who will forward copies to the Department for a permanent record.

**METHOD OF MEASUREMENT**

FURNISH AND INSTALL SANITARY SEWER UTILITIES

Furnish and Install Sanitary Sewer Utilities shall be measured as a "Lump Sum" Item to include all necessary piping, manholes, miscellaneous fittings, automatic air/vacuum relief valves, valve boxes, ring and covers, connection to existing or proposed utilities, maintenance of traffic, permits and fees, excavation, trenching, shoring, backfilling and bedding, drainage rock, tracer wire, and any and all materials, labor and equipment and incidentals necessary to provide a complete working and acceptable sewer system.

**BASIS OF PAYMENT**

FURNISH AND INSTALL SANITARY SEWER UTILITIES

Work completed and accepted under this item, and measured as provided above, will be paid for at the lump sum price for "Furnish and Install Sanitary Sewer Utilities", which price shall be full compensation for all materials, labor, tools, equipment, machinery, drayage, rigging, fees, permits, clean-up, guarantees and any and all incidental items required to complete the work.

**PAY ITEMS**

**PAY UNIT**

Completed Sanitary Sewer Utilities

Lump Sum

PLANS

For

2" PRESSURE SEWER EXTENTION

ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT

GARLAND COUNTY AREA HEADQUARTERS AND R.E. #64 OFFICES



Prepared by

J.A. Sartini PE

P.O. Box 190296

Little Rock, AR 72219-0296



DRAWING INDEX

<u>Sheet No.</u>	<u>Title</u>
1	Vicinity Map
2	Sewer Plan
3	Pressure Sewer Details

October 31, 2012



Project Location

2" PRESSURE SEWER EXTENSION  
ARKANSAS HIGHWAY AND TRANSPORTATION DEPARTMENT  
GARLAND COUNTY AREA HQ/ R.E. OFFICE

PO BOX 190296

LITTLE ROCK, AR 72219-0296

SHEET 1

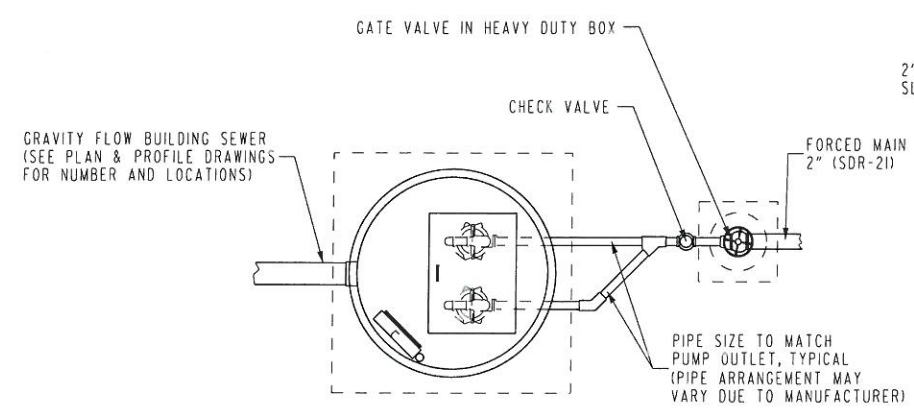
© 2012 Google

Imagery Date: 10/15/2011

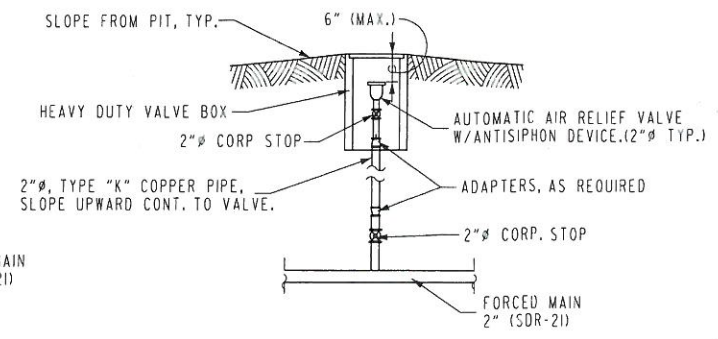
34°30'31.99" N 93°08'14.32" W elev 505 ft

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	6-77	2

4 SEWER DETAILS

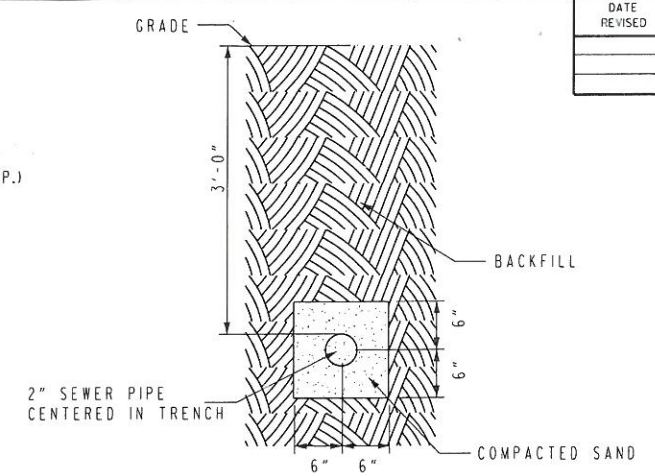


PLAN VIEW



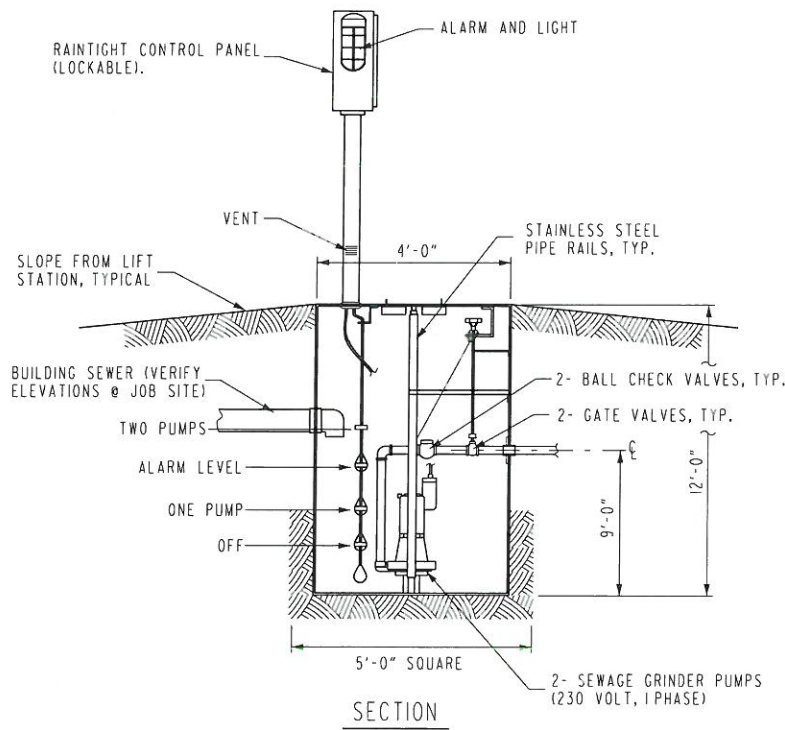
**AUTOMATIC AIR/VACUUM RELIEF VALVE DETAILS**

- NOTES: SCALE : 1/2" = 1'-0"
1. AIR RELIEF VALVES ARE TO BE INSTALLED @ HIGH POINT(S) IN THE NEW FORCED MAINS SEWER, AS REQUIRED BY THE ARKANSAS STATE HEALTH DEPARTMENT.
  2. APCO 400 SEWAGE AIR RELEASE VALVE OR APPROVED EQUAL
  3. ALL VALVE BOXES ARE TO BE SUBSIDIARY TO THE VARIOUS VALVE PAY ITEMS. (THIS ALSO INCLUDES GATE VALVE BOXES.)



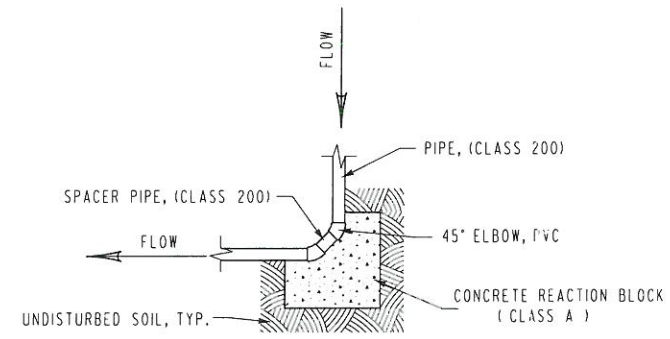
**TRENCH DETAIL**

- NOTE: SCALE : 1" = 1'-0"
1. BACKFILL MATERIAL SHALL BE FIRMLY COMPACTED TO THE SAME CONDITION AS THE SURROUNDING AREA, TO THE SATISFACTION OF THE ENGINEER.
  2. THE 12" OF BEDDING MATERIAL SURROUNDING THE PIPE SHALL MEET THE MAXIMUM PARTICLE SIZE OF AWWA C605 REQUIREMENTS.



**TYPICAL LIFT STATION DETAILS**

SCALE : 1/2" = 1'-0"



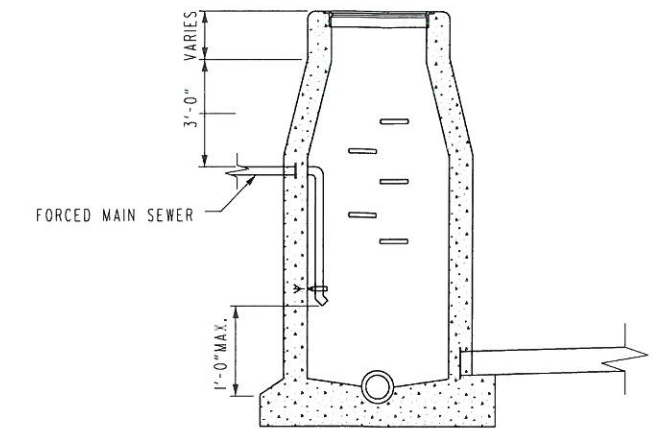
**TYPICAL REACTION BLOCK DETAIL**

- SCALE : 1/2" = 1'-0"
- NOTES:
1. PROVIDE REACTION BLOCK @ ALL DIRECTIONAL CHANGES OF 45° OR MORE, TYPICAL.
  2. REACTION BLOCKS TO BE USED AS REQUIRED ON SEWER MAINS
  4. REACTION BLOCK SIZE TO BE AS PER PIPE DIAMETER AND PRESSURE REQUIREMENTS.

**GENERAL NOTES**

- NOTES:
1. LIFT STATION IS TO HAVE FIBERGLASS BASIN W/MYERS OR APPROVED WG20F 2-H.P. 3450 RPM, 230 VOLT SINGLE PHASE, 5.0" DIA. IMPELLER, 35 GPM @ 60' OF HEAD DUPLEX GRINDER PUMP, IN THE PACKAGED LIFT STATION.
  3. INSTALL AS PER LIFT STATION MANUFACTURER'S RECOMMENDATIONS. SEE PLANS FOR APPROXIMATE LOCATIONS.
  4. 2ND PUMP LEVEL IS TO BE SET @ LOWEST INCOMING SEWER ELEVATION.

1. ALL PIPING IS TO BE IN ACCORDANCE W/ ARKANSAS STATE DEPARTMENT OF HEALTH (A.D.H.) & HOT SPRINGS SEWER DEPT. REGULATIONS.
2. WHERE A MINIMUM OF 10' HORIZONTAL CLEARANCE BETWEEN WATER AND SEWER LINES IS NOT POSSIBLE, A SCH. 40 PVC ENCASEMENT PIPE (W/ GLUED JOINTS & FILLED W/ SAND) IS TO BE USED.
3. IN ALL AREAS WHERE EXCAVATION OCCURS OR AS DIRECTED, TO INCLUDE FURNISHING & PLACING OF SOLID SOD OR PERMANENT SEEDING AND MULCH COVER ACCORDING TO SECTIONS 816 OF SPECIFICATIONS REPLACEMENT OF ROCK RIP-RAP IN EXCAVATED AREAS, ACCORDING TO SECTIONS 620 OF THE SPECIFICATIONS.
4. ALL ELECTRICAL WORK IS TO BE IN ACCORDANCE W/ NATIONAL ELECTRIC CODE, LATEST EDITION.
5. SEE SPECIFICATIONS FOR MORE INFORMATION ON MATERIALS AND CONSTRUCTION METHODS.
6. NO PLASTIC ANCHOR INSERTS WILL BE ALLOWED.
7. ALL LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND MAY VARY DUE TO SITE CONDITIONS.



**SECTION**

**TYPICAL MANHOLE DETAILS**

N.T.S.

PROPOSED PLANS FOR A. H. T. D.	
<b>GARLAND COUNTY</b>	
<b>SANITARY SEWER EXTENSION</b>	
HOT SPRINGS, ARKANSAS	
GARLAND COUNTY, DISTRICT #6	DRAWING NO.
SEWER DETAILS	<b>S-1</b>
ORIGINAL CONSTRUCTION DATE :	PLAN UPDATED : 05-09-12