



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.
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 AND LITERATURE:** Samples or technical literature must be provided within 14 days of AHTD request unless AHTD extends time. Failure to provide samples or literature within this period may cause bid to be rejected. When required, samples of items must be furnished free of charge, prior to or after the opening of bids, and, if not destroyed, will be returned upon request at the bidder's expense. Each individual sample must be labeled with bidder's name and item number. Request for return of samples must be made within 10 days following submission of sample. Samples from successful bidders will 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).

---

ACCEPTANCE (For AHTD Use Only)

Bid No. M-03-164H Accepted as to items numbered \_\_\_\_\_

Date \_\_\_\_\_ By \_\_\_\_\_ Procurement Officer

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**

**SPECIFICATION 03-64-3100**

**FOR**

**SELF-PROPELLED TRENCHING MACHINE**  
**WITH BACKHOE ATTACHMENT**

**AND**  
**TRANSPORT TRAILER**

1. **General:** This specification is intended to cover the purchase of a self-contained, self-propelled, 4 wheel drive ditching machine equipped with a sliding offset chain type trenching attachment with a capacity to dig a trench no less than 6" wide to a depth of no less than 48" below ground level and with a backhoe attachment with a maximum digging depth of no less than 64". Shall be complete with a tandem axle trailer for transporting the trenching machine and attachments.
2. **Trencher:**
  - A. **Engine:** Air or liquid cooled diesel with a minimum piston displacement of 2 liters developing no less than 43 gross horsepower at rated RPM. Shall be equipped with 12 volt electrical system and include starter, battery and alternator. Shall have approved type air cleaner, oil filter, fuel filter, muffler and fuel tank. If engine furnished is liquid cooled, cooling system shall have anti-freeze protection to -20° F, or lower.
  - B. **Instruments:** Shall be equipped with ammeter or charge indicator light, electric hour meter, and all other necessary gauges or indicators, including oil pressure (and coolant temperature if engine is liquid cooled).
  - C. **Steering:** Hydraulic power front-wheel steering as a minimum. Steering to be actuated by means of a steering wheel.
  - D. **Brakes:** Service brakes and parking brake as regularly furnished by manufacturer.
  - E. **Wheels And Tires:** Shall have bar lug type tread and be no less than 26 x 12.00-12, minimum 4 ply rating.
  - F. **Controls:** Shall be conveniently located for ease of operation and accessibility from operator seat. Seat to be adjustable to accommodate different operators.
  - G. **Ground Drive:** Hydrostatic drive providing infinitely variable speeds of 0 to no less than 4 mph forward and 0 to no less than 1.5 mph reverse. Shall be equipped with both a foot pedal and a hand lever to control speed/direction with the foot pedal being capable of over-riding the hand control. The unit shall be four wheel drive with limited slip or locking type differentials. Front axle to have a minimum oscillation of 15°.
  - H. **Trencher Drive:** Hydrostatic with infinitely variable speed control. Shall include reverse capability to remove rocks or other lodged objects from the chain. The hydrostatic pump shall have sufficient capacity to provide oil flow of up to no less than 27 gpm.
  - I. **Trencher Attachment And Boom:** Shall be a "sliding offset" type trenching attachment designed to slide from the offset position to the centerline position to meet varying working conditions. Shall be equipped with single auger for placing material on one side of the trench. The digger drive sprocket shall be designed for ease of replacement. The boom shall be heavy duty design made of tubular steel and be equipped with means to adjust digging chain tension. Chain idler to be equipped with roller bearings. Boom shall be designed to accept standard or frost type chains. Boom furnished shall provide a digging depth of no less than 48" and a minimum trench width of 6". Boom to be hydraulically raised and lowered.
  - J. **Digging Chain:** Shall be frost type hardened steel roller chain with 2" pitch and 50,000 psi minimum tensile strength. Chain to be designed to accept standard cupped type digging teeth or bolt-on "Shark" type self-sharpening teeth. A crumber attachment that works in conjunction with the chain and teeth to clean material from the trench shall also be furnished.
  - K. **Digging Teeth:** Chain to be a "50/50 Shark Combo" with 50% of the chain equipped with cupped type digging teeth made of heat treated manganese steel with tungsten carbide hard facing and 50% equipped with bolt-on "Shark" type self-sharpening teeth. Shall provide a minimum trench width of 6".

- L. Backfill Blade: Shall be equipped with a front mounted six-way hydraulic backfill blade controlled from the operator's position with "joystick" controls. Blade shall have a minimum width of 54", minimum lift above ground level of 12" and minimum drop below ground level of 8". Hydraulic angle shall be a minimum of 27° left and right. Hydraulic tilt shall be a minimum of 8° each direction.
- M. Backhoe Attachment: A hydraulically operated backhoe attachment shall be furnished and installed on the trenching machine. The backhoe shall have a center-mounted seat and a double "joystick" lever control. Unit shall have either nylon or greasable bushings in the pivot areas. Shall have a minimum swing arc of 130°, a maximum dig depth of no less than 64", and a minimum reach of 102" from the swing pivot. Shall be equipped with remote engine throttle control. The bucket shall be no less than 12" in width and be equipped with replaceable digging teeth. Hydraulic stabilizers with street pads shall be provided.
- N. Hydraulic System: Shall include pump(s), reservoir, hydraulic cylinders, control valves, relief valves and filter. Hydraulic pump(s) shall have adequate capacity to operate the various functions of the system.
- O. Vandalism Protection: Shall be equipped with vandalism protection including the following items as a minimum:
- Lockable filler caps for the fuel tank(s) (and radiator if liquid cooled engine is furnished). Filler caps located behind locking panels are acceptable in lieu of individual locking caps.
  - Lockable battery box cover(s).
- Lockable caps, panels and compartments may be equipped with an integrated locking system, or with padlocks. A minimum of two (2) keys shall be provided.
- P. ROPS: Shall be equipped with ROPS and seat belts meeting the requirements of SAE J1040.
- Q. Backup Alarm: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 87 decibels.
3. Trailer: A four (4) wheel, tandem axle, all steel constructed trailer shall be furnished to accommodate the trenching machine and attachments specified above.
- A. Payload Capacity: The payload capacity of the trailer shall be rated at no less than 50 mph and shall exceed the total weight of the trenching machine and attachments.
- B. Deck: The deck shall be placed between the wheels at the lowest practical height and be of sufficient length and width to accommodate the trenching machine and attachments. Flooring shall be hardwood, laid longitudinally.
- C. Frame: Main frame shall be all welded construction of structural steel and be reinforced with a sufficient number of crossmembers to insure stability. Understructure and frame shall be designed, constructed and rated for the full capacity of the trailer.
- D. Tongue: Shall have "A" frame tongue, of adequate length to support and balance the trailer. Shall have a tongue jack mounted between deck and end of tongue. Shall have a 2-5/16" ball type hitch and safety chains with hooks.
- E. Axles and Suspension: Tandem axles with spring or torsion type suspension. Hubs shall run on tapered roller bearings. Shall have steel disc wheels with no less than 5 hole lug bolt circle. Tires shall be new radial ply of adequate size, load carrying capacity and tread design for use with payload capacity of trailer. A spare tire and wheel shall also be provided. Shall have fenders covering wheels with side next to bed enclosed. Shall have electric brakes on all wheels.
- F. Loading Ramps: Trailer shall be equipped with two (2) steel loading ramps. Each ramp shall be no less than 48" long and no less than 16" wide. Ramps shall be fold-up type, or, be designed to store under bed of trailer when not in use. (A single full width fold-up type metal loading ramp may be provided in lieu of the two ramps, if desired by the successful bidder.)
- G. Tie Downs: Lashing rings shall be provided on the frame, with a minimum of two (2) on the front and two (2) on the rear. Rings shall safely secure equipment weighing up to the trailer's maximum payload capacity.
- H. Lights: Shall have all necessary lights and reflectors to meet FMVSS108 including stop, tail and directional signals. Shall be complete with six pole round trailer connector including plug for trailer and receptacle for towing vehicle.
-



4. Color:
- A. Trenching Machine: The Trenching Machine and Attachments provided under this specification shall be painted Arkansas State Highway and Transportation Department Omaha Orange, Sherwin-Williams No. F1E 4143 Kem Transport Enamel, or equal.
  - B. Trailer: The Trailer provided under this specification shall be painted one of the following colors:
    - (1) Arkansas State Highway and Transportation Department Omaha Orange, Sherwin-Williams No. F1E 4143 Kem Transport Enamel, or equal.
    - (2) Sherwin Williams F1B-4009 Gloss Black Enamel, or equal.
5. Warranty: Units covered by this specification to be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date placed in operation by AHTD. Warranty shall include parts, labor and transportation cost to location of the equipment. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done. It will be the responsibility of the successful bidder to insure that repairs are completed in a timely manner.
6. Certificates and Invoice: Manufacturer's Certificate of Origin for the trailer and five (5) copies of the Invoice to be furnished to Equipment & Procurement Division, P.O. Box 2261, Little Rock, AR 72203 (11302 W. Baseline Road, Little Rock, AR 72209, if shipping UPS).
7. Manuals: The successful bidder shall furnish an Operator's Instruction Manual with each unit delivered. In addition, two (2) copies each of Shop Repair Manual and Parts Book for the Trenching Machine (including attachments and engine) and two (2) copies of Parts Book for the Trailer shall be furnished.
- The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
8. Training: The successful bidder shall furnish qualified personnel to instruct AHTD operators and service technicians on operation and maintenance of units purchased under this specification.
9. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
- All parts, accessories and tools necessary for satisfactory operation shall be furnished whether or not they are specifically mentioned in this specification (Including Standard Equipment as regularly furnished by manufacturer as shown on printed literature and specifications - unless specifically excluded by this specification).
10. The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
11. The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of the machine bid under this specification before award is made.
-