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

Contract Number:	H-15-224R			<b>BID OPENING LOCATION:</b> AHTD Equipment and	MAIL TO: AHTD Equipment and	<b>DELIVER TO:</b> AHTD Equipment and
Bid Opening Date:	October 14, 2014	Time:	11:00 a.m.	Procurement Division 11302 West Baseline Road Little Rock, AR 72209	Procurement Division P.O. Box 2261 Little Rock, AR 72203	Procurement Division 11302 West Baseline Road Little Rock, AR 72209
delivery locations un	til the above-noted bid opening	date and t	ime, and then public	ect to the Conditions on page 2 of the ect to the Conditions on page 2 of the ect bids will not be considered.		
In compliance with the set opposite each item		all the Con	ditions thereof, the u	ndersigned offers and agrees to furni	sh any and all items upon wh	ich prices are quoted, at the price
Company Name:			Name (Type or Print):			
Address:			Title:			
				Phone:	Fax:	
City:	State:		Zip:	E-Mail:		
Federal Tax ID or S	Social Security No.:				original (not photocopied) an	d in ink.

#### **Backhoe/Front End Loader**

Bid prices shall include delivery of all Backhoe/Front End Loaders to the Arkansas State Highway and Transportation Department at the F.O.B. location(s) shown on attached Bid Sheet.

Contract may be renewed or extended upon mutual agreement of the parties, but shall not exceed limitations allowed by Arkansas State Procurement Law.

Literature Submittals – Item #2 of Bid Specifications shall supersede Item #10 of Standard Bid Conditions.

**Bid Bond** in the amount of \$1,000 required of all bidders at time of bid opening or bid will be rejected. **Personal and company checks are not acceptable as Bid Bonds.** See Condition 3 on page 2 of bid invitation.

**Performance Bond** in the amount of 5% of the total awarded to the respective bidders must be furnished within 10 days after receipt of notice of intent to award as a guarantee of delivery in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds.** See Condition 3 on page 2 of bid invitation.

**Additional Bonding Requirement:** If additional units are purchased from this contract, a separate Performance Bond will be required under the same conditions as stated in this Bid Invitation.

The successful bidder will be required to complete delivery within 180 days after award.

Bids and Specifications are available on-line by going to the AHTD Web Site – <a href="www.arkansashighways.com">www.arkansashighways.com</a> and clicking on "Bids/Contracts". 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.

#### STANDARD BID CONDITIONS

#### H-15-224R

- 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.
- 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. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. 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). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. 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 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 Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in 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. McFadden 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.mcfadden@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 LITTLE ROCK, ARKANSAS EQUIPMENT AND PROCUREMENT DIVISION

#### **BID SHEET**

	1 of 2 BIDDE	R:					
1.	1 - Backhoe, Front End Loader, Diesel, 70 Net Horsepower	, 2/WD, to meet AH'	ГD Spec. <b>15-241-157</b>				
	FOB: AHTD – District 6 Headquarters, 8900 Mabelvale Pike, Little Rock, AR 72209						
	Bid Price (Do not include any Local, State or Federal Taxes)		Each \$				
	Total for 1 Backhoe/Front End Loader		\$				
	Backhoe/Front End Loader proposed to furnish:						
	Make: Model	Warranty					
	Guaranteed Delivery Date	<u> </u>					
	Additional Units may be purchased at the same pricing and conditions through(Date)						
2.	3 – Backhoe, Front End Loader, Diesel, 97 Net Horsepower, 4/WD, to meet AHTD Spec. 15-243-157						
	FOB: AHTD – District 10 Headquarters, 2510 West Kingshighway, Paragould, AR 72450						
	Bid Price (Do not include any Local, State or Federal Taxes)		Each \$				
	Total for 3 Backhoe/Front End Loaders		\$				
	Backhoe/Front End Loader proposed to furnish:						
	Make: Model	Warranty					
	Guaranteed Delivery Date	<u> </u>					
	Additional Units may be purchased at the same pricing and conditions through(Date)						

Page	e 2 of 2							
3.	2 – Backhoe, Front End Loader, Diesel, 97 Net Horsepower, 4/WD, 4 in 1 Front Bucket, to meet AHTD Spec. 15-244-157							
	FOB: 1 - AHTD – District 5 Headquarters, 1673 Batesville Blvd., Batesville, AR 73501 1 - AHTD – District 8 Headquarters, 372 Aspen Lane, Russellville, AR 72801							
	Bid Price (Do not include an	y Local, State or Federal T	axes)	Each \$				
	Total for 2 Backhoe/Front End Loaders			\$				
	Backhoe/Front End Loader proposed to furnish:							
	Make:	Model_	Warranty					

Guaranteed Delivery Date \_\_\_\_\_

Additional Units may be purchased at the same pricing and

conditions through \_\_\_\_\_\_(Date)

Contract No.: H-15-224R

BID TOTAL \$\_\_\_\_\_

### ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT SPECIFICATION 15-241-157

#### **FOR**

#### BACKHOE/LOADER TWO WHEEL DRIVE 79 HORSEPOWER

#### **General Conditions:**

- Current Model: Units furnished under this specification shall be the latest improved model in current production, as
  offered to commercial trade, built for the U.S. market, and shall be of quality workmanship and material. Machines
  manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new.
  Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable. Manufacturers of
  the units supplied must have been in the business of producing operational units for at least two years and must have
  recently sold similar units to domestic governmental agencies. The model furnished must have been in production for a
  minimum of one year, or be the latest version of a previous model. Bidder/s may be required to submit documentation
  substantiating the aforementioned requirements. A list of user references may also be required.
- 2. <u>Literature</u>: Manufacturers literature, verifying adherence of proposed unit to each line item addressed in this specification, shall be submitted with the bid. 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.
- 3. Any deviations from specifications and requirements herein must be clearly pointed out by bidder. Otherwise it will be considered that equipment offered is in strict compliance with these specifications and requirements, and successful bidder will be held responsible therefor. Deviations must be explained in detail on an attached sheet. However, no implication is made by the Arkansas State Highway and Transportation Department that deviations will be acceptable.
- 4. <u>Manuals</u>: The successful bidder shall furnish one (1) Operator's Instruction Manual with each unit delivered and one (1) copy each of Shop Repair Manual and Parts Book to each FOB point. In addition, one (1) copy each of Operator's Instruction Manual, Shop Repair Manual, and Parts Book shall 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, FedEx, etc.).
  - The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
- 5. <u>Training</u>: The successful bidder shall furnish qualified personnel to instruct AHTD personnel on operation and maintenance of units purchased under this specification.
  - In addition, the successful bidder shall furnish information on any factory service schools, which would be available for AHTD service technicians.
- 6. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
  - All parts, accessories and tools necessary for satisfactory operation of these units 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).
- 7. <u>Parts Inventory & Service Facilities</u>: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
- 8. <u>Demonstration</u>: The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of equipment bid under this specification before award is made. The demonstration would be performed (free of any charge) by the bidder or an authorized representative at a mutually acceptable location. If requested, the bidder should be prepared to demonstrate the equipment within thirty (30) days after notification. Failure of the bidder to perform a satisfactory demonstration within the specified time may be grounds for rejection of the bid.
- 9. <u>Cooperative Purchasing</u>: Other tax-supported entities\* in Arkansas (cities, counties, state agencies, school districts, etc.) may purchase from this Contract on an individual basis under the same specifications and conditions, and at the pricing set forth by each vendor, all at the discretion of each vendor in each case. Prices could be reduced by a vendor for minor alterations in conditions (changing order quantities, deleting options, etc.) as agreed by both parties, but could not be raised above the contract bid price except for any additional freight charges. Vendors would not be required to sell to any such entity under this contract, and those entities would not be obligated to purchase from the contract.
  - Each entity wishing to purchase from the contract must make contact directly with the appropriate vendor(s). The Highway Department shall remain "out of the loop" for such transactions: all contact, orders, invoices, payments, etc.

Spec. 15-241-157

regarding such transactions must take place exclusively between the tax-supported entity and the vendor. The Department shall be held harmless of any and all liability arising from such transactions.

\* Tax-supported entities are defined as those receiving more than half of total funding from appropriated tax funds.

#### **Unit Specifications:**

10. General: This specification is intended to cover a Heavy Duty Industrial Type Loader/Backhoe combination with integral frame and Flat Deck design equipped with a fully enclosed ROPS type cab complete with heat and air conditioning. Two (2) backhoe buckets are to be provided with this unit – a 24" trenching bucket and a 36" ditching bucket.

#### 11. Tractor:

- A. <u>Engine</u>: Liquid cooled diesel developing a minimum of 79 <u>NET</u> Horsepower at rated RPM. Shall be equipped with 12 volt electrical system including battery, starter and alternator. Shall have approved type air cleaner, precleaner and lube oil and fuel filters with replaceable elements. Shall have vertical exhaust muffler with rain cap or curved exhaust pipe. Engine cooling system shall have anti-freeze protection to -20° F, or lower. All other equipment necessary for efficient operation shall be furnished.
- B. <u>Instruments</u>: Shall be equipped with ammeter or charge indicator light, tachometer, electric hour meter (showing actual engine run time independent of engine RPM) and all necessary gauges, including temperature gauge, oil pressure gauge or warning light and fuel gauge.
- C. <u>Transmission</u>: Mechanical or Power Shift type with torque converter and forward/reverse shuttle control, requiring no de-clutching to change direction, providing a minimum of four (4) forward and two (2) reverse speeds. Shall provide forward speed up to 18 mph.
- D. <u>Brakes</u>: To be equipped with hydraulically operated wet disc service brakes, independently controlled, acting on rear wheels. Parking brake as regularly furnished by manufacturer.
- E. Rear Axle: Shall be equipped with differential lock or limited slip differential.
- F. Steering: Hydrostatic power steering including emergency steering capability conforming to SAE J53.
- G. <u>Hydraulics</u>: Hydraulic pump shall be of adequate size and capacity to deliver necessary volume at required pressure for proper operation of backhoe and loader. Hydraulic system shall have necessary control valves, relief valves, filters, reservoir, etc.
- H. Front Wheels and Tires: Shall have 15" or 16" diameter wheels. Tires to be no less than 11L 15 or 11L 16 with F3 tread and minimum 10 ply rating.
- I. <u>Rear Wheels and Tires</u>: Shall have 24" diameter wheels. Tires to be no less than 16.9 24 with R-4 tread and minimum 10 ply rating.
- J. <u>Cab</u>: Fully enclosed ROPS cab meeting the requirements of SAE J1040. Cab shall be equipped with safety glass windshield and windows, air conditioning, heater-defroster unit, front and rear windshield wipers, inside rear view mirror, floor mat, adjustable suspension seat equipped with arm rests, and seat belt per SAE J386.
- K. Backup Alarm: Shall be equipped with a backup alarm meeting the requirements of SAE J994.

#### 12. BACKHOE:

- A. <u>Type</u>: Shall be designed for integral tractor loader installation and have an uninterrupted swing arc of no less than 180 degrees.
- B. <u>Digging Depth</u>: Minimum of 14' 2" with a 2' flat bottom in accordance with SAE J49.
- C. Loading Height: Minimum of 10' 11" measured per SAE J49.
- D. Bucket Cylinder Digging Force: No less than 11,000 pounds.
- E. <u>Dipper Cylinder Digging Force</u>: No less than 7,000 pounds.
- F. Reach from Swing Axis: No less than 17' 0".
- G. Transport Height: Overall height of unit in transport position shall not exceed 12' 6".
- H. <u>Hydraulics</u>: All cylinders shall be double acting. Hydraulic system shall be equipped with pressure relief valve. All hoses and connections necessary for hookup to Tractor shall be furnished.

Spec. 15-241-157

- I. <u>Buckets</u>: The buckets listed below shall be furnished with the machine including any pins, bolts or accessories necessary for their hook-up to the machine.
  - One (1) Heavy Duty Trenching Bucket, 24" wide with SAE J296 heaped capacity of no less than 6 cubic feet. Shall include cutting edge with bucket teeth.
  - One (1) Ditch Cleaning/Grading Bucket, no less than 36" wide, equipped with a bolt-on cutting edge.
- J. <u>Stabilizers</u>: Unit shall be equipped with individually controlled hydraulic stabilizers with a minimum spread of 9' 5" in operating position. Stabilizers shall be equipped with street pads.

#### 13. LOADER:

- A. <u>Type</u>: Hydraulically controlled loader designed for use with Heavy Duty Industrial Type Wheel Tractor with integral Backhoe/Front End Loader Frame. Lift and tilt cylinders shall be double acting.
- B. <u>Bucket</u>: No less than 82" wide with minimum SAE J742 heaped capacity of 1 cubic yard complete with weld-on hardened steel cutting edge. *In addition to the weld-on cutting edge, the bucket shall be equipped with a bolt on auxiliary cutting edge.*
- C. <u>Lift Capacity</u>: No less than 5,400 pounds to full height.
- D. <u>Dump Clearance</u>: No less than 8' 6" at full height with bucket at dump angle.
- E. <u>Bucket Reach</u>: Minimum reach of 28" with the loader at full height and bucket at dump angle.
- F. <u>Digging Depth</u>: Digging depth below ground level with bucket level to the ground shall be no less than 2".
- G. Bucket Breakout: No less than 9,100 pounds breakout force per SAE J732.
- 14. <u>Remote Monitoring System</u>: Unit shall be equipped with an integrated factory installed remote monitoring system which interacts with electronic system controls. System shall offer the following capabilities as a minimum.
  - A. System shall be capable of monitoring and storing electronic data produced by the machine.
  - B. Unit shall be equipped with cellular communication capability for the transmittal of collected data.
  - C. This data shall be accessible to designated employees of the department for review from any internet connection. All data shall be in real time.
  - D. Data collected by this system shall be stored by the manufacturer for a period of not less than (1) one year (twelve months). This historical data shall be accessible to designated employees of the department for review from any internet connection.
  - E. The system shall be capable of notifying the manufacturer/dealer and AHTD personnel in the event a fault code is generated by a component of the machine. If the code is a priority code (immediate attention required, such as low engine oil pressure, low coolant, high coolant temperature, hydraulic pressure, etc.) the manufacturer/dealer will immediately contact AHTD personnel to verify receipt of message.
  - F. System shall be capable of allowing remote access by technicians for the purpose of diagnostic trouble shooting and software updates.
  - G. Unit shall be capable of showing the exact location of the machine as a street address and GPS coordinates.
  - H. Shall be capable of showing hour meter reading in real time and have the ability to notify maintenance personnel when service is due. AHTD personnel shall have the capability to set service parameters in the system for each unit.
  - I. System shall be capable of generating the following reports as a minimum.
    - (1) Unit tracking.
    - (2) Idle time.
    - (3) Machine usage.
    - (4) Engine fuel burn.
  - J. System shall allow designated AHTD personnel the ability to establish geofencing and curfew parameters for each unit.

Page 4 Spec. 15-241-157

- K. The subscription for this package shall be provided to the AHTD free of charge for a minimum of (3) three years (36 months).
- 15. Weight: Advertised operating weight of the machine ready for continuous operation with loader and backhoe buckets, tires and cab shall be no less than 13,800 pounds
- 16. <u>Color</u>: Manufacturer's standard color is acceptable.
- 17. <u>Warranty</u>: Units purchased under this specification shall be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date unit is placed in operation by AHTD.
  - A. Warranty shall include all parts, labor and transportation costs to the location of equipment.
  - B. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
  - C. Warranty repairs are to be performed by any authorized dealership of the manufacturer, however, the successful bidder will be ultimately responsible for coordinating repairs and insuring that warranty repairs are completed in a timely manner.
  - D. Warranty repair action shall begin within five (5) working days after notification for the need of warranty repairs; and repairs should be completed and the unit returned to AHTD within fifteen (15) working days after notification (unless prior arrangements have been made with AHTD personnel).
  - E. If any warranty literature submitted with the bid conflicts with AHTD warranty requirements, the conflict(s) shall be specifically noted, corrected and included with the bid or the conflict(s) will be considered an exception to warranty specifications and the bid rejected.
  - F. Recent prior failure to provide warranty-work, parts, replacement parts or service, in a timely manner, for equipment from the same manufacturer or dealer shall be grounds for the rejection of any submitted bid, or for the denial of any otherwise qualified low bidder, whether such failure is attributable to the manufacturer or the dealer of the equipment. For the purposes of this paragraph "timely manner" means a period of time not exceeding thirty (30) calendar days to provide requested warranty-work, parts, replacement parts, or service. For the purposes of this paragraph "manufacturer" means the original manufacturer of the equipment and its successor or successors, regardless of number, and whether acquired by sale, merger, or otherwise. For the purposes of this paragraph "replacement part" means a part redesigned by a manufacturer to correct a design or engineering defect and which replacement part is capable of providing dependable performance in normal operation conditions for its normal service life without failure. Such bid or bids may be rejected by the Department until such failure or failures have been remedied to the satisfaction of the Department and until such manufacturer or dealer is providing such warranty-work, parts, replacement parts, and service in a timely manner.

### ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT SPECIFICATION 15-243-157

#### **FOR**

# BACKHOE/LOADER FOUR WHEEL DRIVE WITH EXTENDIBLE BACKHOE DIPPERSTICK 97 HORSEPOWER

#### **General Conditions:**

- Current Model: Units furnished under this specification shall be the latest improved model in current production, as
  offered to commercial trade, built for the U.S. market, and shall be of quality workmanship and material. Machines
  manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new.
  Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable. Manufacturers of
  the units supplied must have been in the business of producing operational units for at least two years and must have
  recently sold similar units to domestic governmental agencies. The model furnished must have been in production for a
  minimum of one year, or be the latest version of a previous model. Bidder/s may be required to submit documentation
  substantiating the aforementioned requirements. A list of user references may also be required.
- 2. <u>Literature</u>: Manufacturers literature, verifying adherence of proposed unit to each line item addressed in this specification, shall be submitted with the bid. 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.
- 3. Any deviations from specifications and requirements herein must be clearly pointed out by bidder. Otherwise it will be considered that equipment offered is in strict compliance with these specifications and requirements, and successful bidder will be held responsible therefor. Deviations must be explained in detail on an attached sheet. However, no implication is made by the Arkansas State Highway and Transportation Department that deviations will be acceptable.
- 4. <u>Manuals</u>: The successful bidder shall furnish one (1) Operator's Instruction Manual with each unit delivered and one (1) copy each of Shop Repair Manual and Parts Book to each FOB point.
  - The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD, DVD, USB Drive, etc.) in lieu of printed manuals.
- 5. <u>Training</u>: The successful bidder shall furnish qualified personnel to instruct AHTD personnel on operation and maintenance of units purchased under this specification.
  - In addition, the successful bidder shall furnish information on any factory service schools that would be available for AHTD service technicians.
- 6. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
  - All parts, accessories and tools necessary for satisfactory operation of these units 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).
- 7. <u>Parts Inventory & Service Facilities</u>: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
- 8. <u>Demonstration</u>: The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of equipment bid under this specification before award is made. The demonstration would be performed (free of any charge) by the bidder or an authorized representative at a mutually acceptable location. If requested, the bidder should be prepared to demonstrate the equipment within thirty (30) days after notification. Failure of the bidder to perform a satisfactory demonstration within the specified time may be grounds for rejection of the bid.
- 9. Cooperative Purchasing: Other tax-supported entities\* in Arkansas (cities, counties, state agencies, school districts, etc.) may purchase from this Contract on an individual basis under the same specifications and conditions, and at the pricing set forth by each vendor, all at the discretion of each vendor in each case. Prices could be reduced by a vendor for minor alterations in conditions (changing order quantities, deleting options, etc.) as agreed by both parties, but could not be raised above the contract bid price except for any additional freight charges. Vendors would not be required to sell to any such entity under this contract, and those entities would not be obligated to purchase from the contract.
  - Each entity wishing to purchase from the contract must make contact directly with the appropriate vendor(s). The Highway Department shall remain "out of the loop" for such transactions: all contact, orders, invoices, payments, etc. regarding such transactions must take place exclusively between the tax-supported entity and the vendor. The Department shall be held harmless of any and all liability arising from such transactions.

<sup>\*</sup> Tax-supported entities are defined as those receiving more than half of total funding from appropriated tax funds.

Spec. 15-243-157

#### **Unit Specifications:**

10. General: This specification is intended to cover a Heavy Duty Industrial Type Four Wheel Drive Loader/Backhoe combination with integral frame and Flat Deck design equipped with an extendible dipperstick type backhoe and a fully enclosed ROPS type cab complete with heat and air conditioning. *Two* (2) backhoe buckets are to be provided with this unit – a 24" trenching bucket and a 48" ditching bucket.

#### 11. Tractor:

- A. <u>Engine</u>: Liquid cooled diesel developing a minimum of 97 <u>NET</u> Horsepower at rated RPM. Shall be equipped with 12 volt electrical system including battery, starter and alternator. Shall have approved type air cleaner, precleaner and lube oil and fuel filters with replaceable elements. Shall have vertical exhaust muffler with rain cap or curved exhaust pipe. Engine shall be equipped with an electric block heater that will operate on 120 volts AC. Engine cooling system shall have anti-freeze protection to -20° F, or lower. All other equipment necessary for efficient operation shall be furnished.
- B. <u>Instruments</u>: Shall be equipped with ammeter or charge indicator light, tachometer, electric hour meter (showing actual engine run time independent of engine RPM) and all necessary gauges, including temperature gauge, oil pressure gauge or warning light and fuel gauge.
- C. <u>Transmission</u>: Mechanical or Power Shift type, with torque converter and forward/reverse shuttle control requiring no de-clutching to change direction, providing a minimum of four (4) forward and three (3) reverse speeds. Shall provide forward speed up to 20 mph.
- D. <u>Brakes</u>: To be equipped with hydraulically operated wet disc service brakes, independently controlled, acting on rear wheels. Parking brake as regularly furnished by manufacturer.
- E. Rear Axle: Shall be equipped with differential lock or limited slip differential.
- F. Front Axle: Shall have a front drive axle with planetary final drives providing all wheel drive capability. Unit shall be electrical lock-in design.
- G. Steering: Hydrostatic power steering including emergency steering capability conforming to SAE J53.
- H. <u>Hydraulics</u>: Hydraulic pump shall be of adequate size and capacity to deliver necessary volume at required pressure for proper operation of backhoe and loader. Hydraulic system shall have necessary control valves, relief valves, filters, reservoir, etc.
- I. <u>Front Wheels and Tires</u>: Size of front wheels and tires shall be as recommended to provide the proper speed match between the front drive axle and the rear axle equipped with rear wheels and tires specified above. Tires shall have traction type tread and no less than 10 ply rating.
- J. <u>Rear Wheels and Tires</u>: Shall have 24" diameter wheels. Tires to be no less than 19.5L x 24 with R-4 tread and minimum 10 ply rating.
- K. <u>Cab</u>: Fully enclosed ROPS cab meeting the requirements of SAE J1040. Cab shall be equipped with safety glass windshield and windows, air conditioning, heater-defroster unit, front and rear windshield wipers, inside rear view mirror, floor mat, adjustable suspension seat equipped with arm rests, and seat belt per SAE J386.
- L. <u>Backup Alarm</u>: Shall be equipped with a backup alarm meeting the requirements of SAE J994.

#### 12. BACKHOE:

- A. <u>Type</u>: Shall be an extendible dipperstick type backhoe designed for integral tractor loader installation and have an uninterrupted swing arc of no less than 180 degrees. Two joysticks shall be used to control all functions of the backhoe. Joysticks shall be conveniently located for the operator.
- B. <u>Digging Depth</u>: With a 2' flat bottom in accordance with SAE J49.
  - (1) Retracted: Minimum of 15' 0".
  - (2) Extended: Minimum of 18' 9".
- C. Loading Height: Measured per SAE J49.
  - (1) Retracted: Minimum of 11' 5".
  - (2) Extended: Minimum of 13' 9".
- D. <u>Bucket Cylinder Digging Force</u>: No less than 12,600 pounds.
- E. <u>Dipper Cylinder Digging Force</u>:
  - (1) Retracted: No less than 8,300 pounds.
  - (2) Extended: No less than 5,900 pounds.

Spec. 15-243-157

- F. Reach from Swing Axis:
  - (1) Retracted: No less than 17' 11".
  - (2) Extended: No less than 21' 0".
- G. Ground Clearance at Swing Post: No less than 13".
- H. Transport Height: Overall height of unit in transport position shall not exceed 13' 1".
- I. <u>Hydraulics</u>: All cylinders shall be double acting. Hydraulic system shall be equipped with pressure relief valve. All hoses and connections necessary for hookup to Tractor shall be furnished.
- J. <u>Buckets</u>: The buckets listed below shall be furnished with the machine including any pins, bolts or accessories necessary for their hook-up to the machine.
  - One (1) Heavy Duty Trenching Bucket, 24" wide with SAE J296 heaped capacity of no less than 6 cubic feet. Shall include cutting edge with bucket teeth.
  - One (1) Ditch Cleaning/Grading Bucket, no less than 48" wide, equipped with a bolt-on cutting edge.
- K. <u>Stabilizers</u>: Unit shall be equipped with individually controlled hydraulic stabilizers with a minimum spread of 10' 5" in operating position. Stabilizers shall be equipped with street pads.

#### 13. LOADER:

- A. <u>Type</u>: Hydraulically controlled loader designed for use with Heavy Duty Industrial Type Wheel Tractor with integral Backhoe/Front End Loader Frame. One joystick shall be used to control all functions of the loader and loader bucket. The joystick shall be conveniently located for the operator. Lift and tilt cylinders shall be double acting.
- B. <u>Bucket</u>: No less than 88" wide with a minimum SAE J742 heaped capacity of 1.3 cubic yards complete with weld-on hardened steel cutting edge. *In addition to the weld-on cutting edge, the bucket shall be equipped with a bolt on auxiliary cutting edge.*
- C. <u>Lift Capacity</u>: No less than 6,475 pounds to full height.
- D. <u>Dump Clearance</u>: No less than 8' 7" at full height with bucket at dump angle.
- E. Bucket Reach: Minimum reach of 27" with the loader at full height and bucket at dump angle.
- F. Digging Depth: Digging depth below ground level with bucket level to the ground shall be no less than 2".
- G. Bucket Breakout: No less than 10,300 pounds breakout force per SAE J732.
- 14. <u>Remote Monitoring System</u>: Unit shall be equipped with an integrated factory installed remote monitoring system which interacts with electronic system controls. System shall offer the following capabilities as a minimum.
  - A. System shall be capable of monitoring and storing electronic data produced by the machine.
  - B. Unit shall be equipped with cellular communication capability for the transmittal of collected data.
  - C. This data shall be accessible to designated employees of the department for review from any internet connection. All data shall be in real time.
  - D. Data collected by this system shall be stored by the manufacturer for a period of not less than (1) one year (twelve months). This historical data shall be accessible to designated employees of the department for review from any internet connection.
  - E. The system shall be capable of notifying the manufacturer/dealer and AHTD personnel in the event a fault code is generated by a component of the machine. If the code is a priority code (immediate attention required, such as low engine oil pressure, low coolant, high coolant temperature, hydraulic pressure, etc.) the manufacturer/dealer will immediately contact AHTD personnel to verify receipt of message.
  - F. System shall be capable of allowing remote access by technicians for the purpose of diagnostic trouble shooting and software updates.
  - G. Unit shall be capable of showing the exact location of the machine as a street address and GPS coordinates.
  - H. Shall be capable of showing hour meter reading in real time and have the ability to notify maintenance personnel when service is due. AHTD personnel shall have the capability to set service parameters in the system for each unit.
  - I. System shall be capable of generating the following reports as a minimum.

Spec. 15-243-157

- (1) Unit tracking.
- (2) Idle time.
- (3) Machine usage.
- (4) Engine fuel burn.
- J. System shall allow designated AHTD personnel the ability to establish geofencing and curfew parameters for each unit.
- K. The subscription for this package shall be provided to the AHTD free of charge for a minimum of (3) three years (36 months).
- 15. Weight: Advertised operating weight of the machine ready for continuous operation with loader and backhoe buckets, tires and cab shall be no less than 16,300 pounds
- 16. <u>Color</u>: Manufacturer's standard color is acceptable.
- 17. <u>Warranty</u>: Units purchased under this specification shall be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date unit is placed in operation by AHTD.
  - A. Warranty shall include all parts, labor and transportation costs to the location of equipment.
  - B. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
  - C. Warranty repairs are to be performed by any authorized dealership of the manufacturer; however, the successful bidder will be ultimately responsible for coordinating repairs and insuring that warranty repairs are completed in a timely manner.
  - D. Warranty repair action shall begin within five (5) working days after notification for the need of warranty repairs; and repairs should be completed and the unit returned to AHTD within fifteen (15) working days after notification (unless prior arrangements have been made with AHTD personnel).
  - E. If any warranty literature submitted with the bid conflicts with AHTD warranty requirements, the conflict(s) shall be specifically noted, corrected and included with the bid or the conflict(s) will be considered an exception to warranty specifications and the bid rejected.
  - F. Recent prior failure to provide warranty-work, parts, replacement parts or service, in a timely manner, for equipment from the same manufacturer or dealer shall be grounds for the rejection of any submitted bid, or for the denial of any otherwise qualified low bidder, whether such failure is attributable to the manufacturer or the dealer of the equipment. For the purposes of this paragraph "timely manner" means a period of time not exceeding thirty (30) calendar days to provide requested warranty-work, parts, replacement parts, or service. For the purposes of this paragraph "manufacturer" means the original manufacturer of the equipment and its successor or successors, regardless of number, and whether acquired by sale, merger, or otherwise. For the purposes of this paragraph "replacement part" means a part redesigned by a manufacturer to correct a design or engineering defect and which replacement part is capable of providing dependable performance in normal operation conditions for its normal service life without failure. Such bid or bids may be rejected by the Department until such failure or failures have been remedied to the satisfaction of the Department and until such manufacturer or dealer is providing such warranty-work, parts, replacement parts, and service in a timely manner.

### ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT SPECIFICATION 15-244-157

**FOR** 

#### BACKHOE/LOADER 97 NET HORSEPOWER FOUR WHEEL DRIVE

## WITH EXTENDIBLE BACKHOE DIPPERSTICK 24" TRENCHING BUCKET AND 48" DITCHING BUCKET FOUR-IN-ONE LOADER BUCKET

#### **General Conditions:**

- 1. <u>Current Model</u>: Units furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, built for the U.S. market, and shall be of quality workmanship and material. Machines manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new. Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable. Manufacturers of the units supplied must have been in the business of producing operational units for at least two years and must have recently sold similar units to domestic governmental agencies. The model furnished must have been in production for a minimum of one year, or be the latest version of a previous model. Bidder/s may be required to submit documentation substantiating the aforementioned requirements. A list of user references may also be required.
- 2. <u>Literature</u>: Manufacturers literature, verifying adherence of proposed unit to each line item addressed in this specification, shall be submitted with the bid. 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.
- 3. Any deviations from specifications and requirements herein must be clearly pointed out by bidder. Otherwise it will be considered that equipment offered is in strict compliance with these specifications and requirements, and successful bidder will be held responsible therefor. Deviations must be explained in detail on an attached sheet. However, no implication is made by the Arkansas State Highway and Transportation Department that deviations will be acceptable.
- 4. <u>Manuals</u>: The successful bidder shall furnish one (1) Operator's Instruction Manual with each unit delivered and one (1) copy each of Shop Repair Manual and Parts Book to each FOB point.
  - The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD, DVD, USB Drive, etc.) in lieu of printed manuals.
- 5. <u>Training</u>: The successful bidder shall furnish qualified personnel to instruct AHTD personnel on operation and maintenance of units purchased under this specification.
  - In addition, the successful bidder shall furnish information on any factory service schools that would be available for AHTD service technicians.
- 6. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
  - All parts, accessories and tools necessary for satisfactory operation of these units 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).
- 7. <u>Parts Inventory & Service Facilities</u>: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
- 8. <u>Demonstration</u>: The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of equipment bid under this specification before award is made. The demonstration would be performed (free of any charge) by the bidder or an authorized representative at a mutually acceptable location. If requested, the bidder should be prepared to demonstrate the equipment within thirty (30) days after notification. Failure of the bidder to perform a satisfactory demonstration within the specified time may be grounds for rejection of the bid.
- 9. Cooperative Purchasing: Other tax-supported entities\* in Arkansas (cities, counties, state agencies, school districts, etc.) may purchase from this Contract on an individual basis under the same specifications and conditions, and at the pricing set forth by each vendor, all at the discretion of each vendor in each case. Prices could be reduced by a vendor for minor alterations in conditions (changing order quantities, deleting options, etc.) as agreed by both parties, but could not be raised above the contract bid price except for any additional freight charges. Vendors would not be required to sell to any such entity under this contract, and those entities would not be obligated to purchase from the contract.
  - Each entity wishing to purchase from the contract must make contact directly with the appropriate vendor(s). The Highway Department shall remain "out of the loop" for such transactions: all contact, orders, invoices, payments, etc.

Page 2 Spec. 15-244-157

regarding such transactions must take place exclusively between the tax-supported entity and the vendor. The Department shall be held harmless of any and all liability arising from such transactions.

\* Tax-supported entities are defined as those receiving more than half of total funding from appropriated tax funds.

#### **Unit Specifications:**

10. <u>General</u>: This specification is intended to cover a Heavy Duty Industrial Type Four Wheel Drive Loader/Backhoe combination with integral frame and Flat Deck design equipped with a multi-purpose four-in-one loader bucket, an extendible dipperstick type backhoe and a fully enclosed ROPS type cab complete with heat and air conditioning. *Two* (2) backhoe buckets are to be provided with this unit – a 24" trenching bucket and a 48" ditching bucket.

#### 11. Tractor:

- A. <u>Engine</u>: Liquid cooled diesel developing a minimum of 97 <u>NET</u> Horsepower at rated RPM. Shall be equipped with 12 volt electrical system including battery, starter and alternator. Shall have approved type air cleaner, precleaner and lube oil and fuel filters with replaceable elements. Shall have vertical exhaust muffler with rain cap or curved exhaust pipe. Engine shall be equipped with an electric block heater that will operate on 120 volts AC. Engine cooling system shall have anti-freeze protection to -20° F, or lower. All other equipment necessary for efficient operation shall be furnished.
- B. <u>Instruments</u>: Shall be equipped with ammeter or charge indicator light, tachometer, electric hour meter (showing actual engine run time independent of engine RPM) and all necessary gauges, including temperature gauge, oil pressure gauge or warning light and fuel gauge.
- C. <u>Transmission</u>: Mechanical or Power Shift type, with torque converter and forward/reverse shuttle control requiring no de-clutching to change direction, providing a minimum of four (4) forward and three (3) reverse speeds. Shall provide forward speed up to 20 mph.
- D. <u>Brakes</u>: To be equipped with hydraulically operated wet disc service brakes, independently controlled, acting on rear wheels. Parking brake as regularly furnished by manufacturer.
- E. Rear Axle: Shall be equipped with differential lock or limited slip differential.
- F. Front Axle: Shall have a front drive axle with planetary final drives providing all wheel drive capability. Unit shall be electrical lock-in design.
- G. <u>Steering</u>: Hydrostatic power steering including emergency steering capability conforming to SAE J53.
- H. <u>Hydraulics</u>: Hydraulic pump shall be of adequate size and capacity to deliver necessary volume at required pressure for proper operation of backhoe and loader. Hydraulic system shall have necessary control valves, relief valves, filters, reservoir, etc.
- I. <u>Front Wheels and Tires</u>: Size of front wheels and tires shall be as recommended to provide the proper speed match between the front drive axle and the rear axle equipped with rear wheels and tires specified above. Tires shall have traction type tread and no less than 10 ply rating.
- J. Rear Wheels and Tires: Shall have 24" diameter wheels. Tires to be no less than 19.5L x 24 with R-4 tread and minimum 10 ply rating.
- K. <u>Cab</u>: Fully enclosed ROPS cab meeting the requirements of SAE J1040. Cab shall be equipped with safety glass windshield and windows, air conditioning, heater-defroster unit, front and rear windshield wipers, inside rear view mirror, floor mat, adjustable suspension seat equipped with arm rests, and seat belt per SAE J386.
- L. <u>Backup Alarm</u>: Shall be equipped with a backup alarm meeting the requirements of SAE J994.

#### 12. BACKHOE:

- A. <u>Type</u>: Shall be an extendible dipperstick type backhoe designed for integral tractor loader installation and have an uninterrupted swing arc of no less than 180 degrees. Two joysticks shall be used to control all functions of the backhoe. Joysticks shall be conveniently located for the operator.
- B. <u>Digging Depth</u>: With a 2' flat bottom in accordance with SAE J49.
  - (1) Retracted: Minimum of 15' 0".
  - (2) Extended: Minimum of 18' 9".
- C. Loading Height: Measured per SAE J49.
  - (1) Retracted: Minimum of 11' 5".

Spec. 15-244-157

- (2) Extended: Minimum of 13' 9".
- D. <u>Bucket Cylinder Digging Force</u>: No less than 12,600 pounds.
- E. <u>Dipper Cylinder Digging Force</u>:
  - (1) Retracted: No less than 8,300 pounds.
  - (2) Extended: No less than 5,900 pounds.
- F. Reach from Swing Axis:
  - (1) Retracted: No less than 17' 11".
  - (2) Extended: No less than 21' 0".
- G. Ground Clearance at Swing Post: No less than 13".
- H. Transport Height: Overall height of unit in transport position shall not exceed 13' 1".
- I. <u>Hydraulics</u>: All cylinders shall be double acting. Hydraulic system shall be equipped with pressure relief valve. All hoses and connections necessary for hookup to Tractor shall be furnished.
- J. <u>Buckets</u>: The buckets listed below shall be furnished with the machine including any pins, bolts or accessories necessary for their hook-up to the machine.
  - One (1) Heavy Duty Trenching Bucket, 24" wide with SAE J296 heaped capacity of no less than 6 cubic feet. Shall include cutting edge with bucket teeth.
  - One (1) Ditch Cleaning/Grading Bucket, no less than 48" wide, equipped with a bolt-on cutting edge.
- K. <u>Stabilizers</u>: Unit shall be equipped with individually controlled hydraulic stabilizers with a minimum spread of 10' 5" in operating position. Stabilizers shall be equipped with street pads.

#### 13. LOADER:

- A. <u>Type</u>: Hydraulically controlled loader designed for use with Heavy Duty Industrial Type Wheel Tractor with integral Backhoe/Front End Loader Frame. One joystick shall be used to control all functions of the loader and loader bucket. The joystick shall be conveniently located for the operator. Lift and tilt cylinders shall be double acting.
- B. <u>Four-In-One Bucket</u>: The unit shall be equipped with a multi-purpose four-in-one bucket. Bucket shall be no less than 88" wide with a minimum SAE J742 heaped capacity of 1.2 cubic yards and be complete with bolt-on cutting edges. Unit shall be equipped with all valves, controls, hoses, fittings, etc. required for proper operation.
- C. Lift Capacity: No less than 5,700 pounds to full height.
- D. Dump Clearance: No less than 8' 7" at full height with bucket at dump angle.
- E. Bucket Reach: Minimum reach of 25" with the loader at full height and bucket at dump angle.
- F. <u>Digging Depth</u>: Digging depth below ground level with bucket level to the ground shall be no less than 2".
- G. <u>Bucket Breakout</u>: No less than 9,650 pounds breakout force.
- 14. <u>Remote Monitoring System</u>: Unit shall be equipped with an integrated factory installed remote monitoring system which interacts with electronic system controls. System shall offer the following capabilities as a minimum.
  - A. System shall be capable of monitoring and storing electronic data produced by the machine.
  - B. Unit shall be equipped with cellular communication capability for the transmittal of collected data.
  - C. This data shall be accessible to designated employees of the department for review from any internet connection. All data shall be in real time.
  - D. Data collected by this system shall be stored by the manufacturer for a period of not less than (1) one year (twelve months). This historical data shall be accessible to designated employees of the department for review from any internet connection.
  - E. The system shall be capable of notifying the manufacturer/dealer and AHTD personnel in the event a fault code is generated by a component of the machine. If the code is a priority code (immediate attention required, such as low engine oil pressure, low coolant, high coolant temperature, hydraulic pressure, etc.) the manufacturer/dealer will immediately contact AHTD personnel to verify receipt of message.
  - F. System shall be capable of allowing remote access by technicians for the purpose of diagnostic trouble shooting and software updates.
  - G. Unit shall be capable of showing the exact location of the machine as a street address and GPS coordinates.

Page 4 Spec. 15-244-157

- H. Shall be capable of showing hour meter reading in real time and have the ability to notify maintenance personnel when service is due. AHTD personnel shall have the capability to set service parameters in the system for each unit.
- I. System shall be capable of generating the following reports as a minimum.
  - (1) Unit tracking.
  - (2) Idle time.
  - (3) Machine usage.
  - (4) Engine fuel burn.
- J. System shall allow designated AHTD personnel the ability to establish geofencing and curfew parameters for each unit.
- K. The subscription for this package shall be provided to the AHTD free of charge for a minimum of (3) three years (36 months).
- 15. Weight: Advertised operating weight of the machine ready for continuous operation with four-in-one loader bucket, backhoe bucket, tires, and cab shall be no less than 16,850 pounds
- 16. <u>Color</u>: Manufacturer's standard color is acceptable.
- 17. <u>Warranty</u>: Units purchased under this specification shall be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date unit is placed in operation by AHTD.
  - A. Warranty shall include all parts, labor and transportation costs to the location of equipment.
  - B. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
  - C. Warranty repairs are to be performed by any authorized dealership of the manufacturer, however, the successful bidder will be ultimately responsible for coordinating repairs and insuring that warranty repairs are completed in a timely manner.
  - D. If any warranty literature submitted with the bid conflicts with AHTD warranty requirements, the conflict(s) shall be specifically noted, corrected and included with the bid or the conflict(s) will be considered an exception to warranty specifications and the bid rejected.
  - E. Recent prior failure to provide warranty-work, parts, replacement parts or service, in a timely manner, for equipment from the same manufacturer or dealer shall be grounds for the rejection of any submitted bid, or for the denial of any otherwise qualified low bidder, whether such failure is attributable to the manufacturer or the dealer of the equipment. For the purposes of this paragraph "timely manner" means a period of time not exceeding thirty (30) calendar days to provide requested warranty-work, parts, replacement parts, or service. For the purposes of this paragraph "manufacturer" means the original manufacturer of the equipment and its successor or successors, regardless of number, and whether acquired by sale, merger, or otherwise. For the purposes of this paragraph "replacement part" means a part redesigned by a manufacturer to correct a design or engineering defect and which replacement part is capable of providing dependable performance in normal operation conditions for its normal service life without failure. Such bid or bids may be rejected by the Department until such failure or failures have been remedied to the satisfaction of the Department and until such manufacturer or dealer is providing such warranty-work, parts, replacement parts, and service in a timely manner.