

STANDARD BID CONDITIONS

H-13-106R

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, 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
AND TRANSPORTATION DEPARTMENT**

NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and other federal equal opportunity laws and therefore does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Department 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 EEO/DBE Section Head (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: EEO/DBE_Section_Head@ahtd.ar.gov.

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 & PROCUREMENT DIVISION
BID SHEET

Bid No. **H-13-106R**
Page 1 of 2

BIDDER: _____

1. **1** - Cab & Chassis, 33,000 lbs. GVWR, **Automatic Transmission**, 120" CA with 12' Flatbed Dump Body and Hoist, to meet AHTD Spec. **12-166-039**.

FOB: AHTD - District 3 Headquarters, 2911 Highway 29 North, Hope, AR 71801

Equipment proposed to furnish:

Cab & Chassis:	Make _____	Model/Part No. _____
Dump Body:	Make _____	Model/Part No. _____
Hydraulic Hoist:	Make _____	Model/Part No. _____
Hydraulic Pump:	Make _____	Model/Part No. _____
Power Take-Off:	Make _____	Model/Part No. _____

Warranty on Dump Body and Component Parts is _____ days.

Bid Price (Do not include any Local, State or Federal Taxes)

Total for 1 Vehicle \$ _____

Guaranteed Delivery Date _____

Additional units may be purchased
at this price through _____

2. **4** - Cab & Chassis, 53,000 lbs. GVWR, Tandem Axle, **Manual Transmission**, 102" CA with Crossmemberless Dump Body and Hoist, 12 Cubic Yards Capacity, to meet AHTD Spec. **12-167-036**.

FOB: **1** - AHTD - District 1 Headquarters, 2701 Highway 64 West, Wynne, AR 72396

3 - AHTD - District 8 Headquarters, 372 Aspen Lane, Russellville, AR 72801

Equipment proposed to furnish:

Cab & Chassis:	Make _____	Model/Part No. _____
Dump Body:	Make _____	Model/Part No. _____
Hydraulic Hoist:	Make _____	Model/Part No. _____
Hydraulic Pump:	Make _____	Model/Part No. _____
Power Take-Off:	Make _____	Model/Part No. _____

Warranty on Dump Body and Component Parts is _____ days.

Bid Price (Do not include any Local, State or Federal Taxes) Each \$ _____

Total for 4 Vehicles \$ _____

Guaranteed Delivery Date _____

Additional units may be purchased
at this price through _____

3. **1** - Cab & Chassis, 53,000 lbs. GVWR, Tandem Axle, **Automatic Transmission**, 102" CA, with Crossmemberless Dump Body and Hoist, 12 Cubic Yards Capacity, to meet AHTD Spec. **12-168-038**.

FOB: AHTD - District 2 Headquarters, 4900 Highway 65 South, Pine Bluff, AR 71611

Equipment proposed to furnish:

Cab & Chassis:	Make _____	Model/Part No. _____
Dump Body:	Make _____	Model/Part No. _____
Hydraulic Hoist:	Make _____	Model/Part No. _____
Hydraulic Pump:	Make _____	Model/Part No. _____
Power Take-Off:	Make _____	Model/Part No. _____

Warranty on Dump Body and Component Parts is _____ days.

Bid Price (Do not include any Local, State or Federal Taxes)

Total for 1 Vehicle \$ _____

Guaranteed Delivery Date _____

Additional units may be purchased
at this price through _____

TOTAL BID PRICE: \$ _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIFICATION 12-166-039

FOR

CAB AND CHASSIS

33,000 POUNDS GVWR

AUTOMATIC TRANSMISSION

THREE PERSON SEATING

WITH FLATBED DUMP BODY AND HOIST

1. Cab & Chassis:

- A. GVWR: No less than 33,000 pounds.
- B. Wheelbase: Minimum of 185", maximum of 205".
- C. Cab to Axle: Nominal effective CA of 120".
- D. Tires: No less than 11R22.5 - "G" Load Range Tubeless Steel Belted Radial; Single Front and Dual Rear. Front tires shall be one of the following: Bridgestone - R280; Goodyear - G149; Michelin - XZA3 or XZE. Rear tires shall be one of the following: Bridgestone - M711; Goodyear - G182; Michelin - XDA3.
- E. Wheels: Seven (7) 22.5" Diameter, tubeless type, hub piloted steel disc with 220 mm center hole, 285.75 mm 10 hole bolt circle diameter and not less than 8.25" rim section.
- F. Engine: Turbocharged 4 Cycle diesel with a minimum piston displacement of 7.2 liters developing no less than 250 SAE gross horsepower at rated RPM and no less than 800 lb. ft. SAE gross torque. Shall have a minimum governed speed of 2,400 RPM. (The following engines are acceptable: Caterpillar C7, Cummins ISC, International DT466. If an alternate engine is proposed, it must be approved by AHTD prior to bid opening.) Shall have full flow oil filter(s), fuel filters, dry type air cleaner, 12 volt electrical equipment with no less than 130 amp alternator and maintenance free batteries as regularly furnished with engine specified. Engine shall be equipped with a block heater rated at no less than 1,000 watts which will operate on 120 volts AC.
- G. Cooling System: As recommended and regularly furnished by the manufacturer for use with the engine size specified above with anti-freeze protection to -20° F, or lower.
- H. Exhaust System: Horizontal or vertical exhaust. If vertical, exhaust stack shall have a rain cap or curved outlet and be equipped with a heat shield. Muffler and exhaust system shall provide clearance for installation of PTO with direct mount hydraulic pump on transmission.
- I. Engine Shutdown: Engine safety shutdown system with manual or automatic override to include the following features: low oil pressure - warning bell/buzzer plus shutdown, high coolant temperature - warning bell/buzzer plus shutdown and low coolant level - warning bell/buzzer plus light or shutdown.
- J. Variable Engine Speed Control: Shall be equipped with engine speed control for use with PTO. Provision shall be suitable for use with a remote mounted variable engine speed control used with a truck mounted hydraulic crane or other equipment requiring remote mounted engine speed control.
- K. Fuel Tank(s): Single or dual fuel tanks with instrument panel fuel gauge. Minimum fuel capacity of 100 gallons
- L. Transmission: Allison 3500 RDS automatic with six speed programming and PTO provision. Transmission shall have synthetic lubricant and be equipped with a transmission oil cooler.
- M. Steering: Hydraulic actuated power steering as regularly offered by manufacturer.
- N. Front Axle: I Beam Type with wet seals, outboard mounted drums and a minimum capacity of 12,000 pounds.

- O. Rear Axle: Single speed full-floating type with wet seals, outboard mounted drums and a minimum capacity of 21,000 pounds. Ratio of 6.43 or 6.50 to 1. Alternate ratio may be provided if approved by AHTD prior to delivery.
- P. Springs: As required to meet GVWR and axle ratings specified above. Rear springs shall consist of both main and auxiliary or overloads.
- Q. Air System: Air compressor shall have a minimum capacity of 13.2 cfm and draw air through the engine air cleaner. Air system shall be equipped with a heated air dryer.
- R. Brakes: Factory installed full air operated two shoe type with automatic slack adjusters and dust shields on front and rear. Rear brakes shall have spring set parking brakes.
- S. Frame: Section modulus and yield strength of frame material shall provide a minimum RBM of 1,700,000.
- T. Cab: Conventional cab as regularly furnished by manufacturer, complete with insulation and all interior trim. Cab glass shall include windshield, roll-up windows in doors and rear cab glass as a minimum. Shall have key type lock on right and left doors, factory installed fresh air heater-defroster unit, grab handle on each side, right and left sun shades and fitted rubber floor mats.
1. Instruments: Shall include the following as a minimum:
 - (a) Speedometer/odometer
 - (b) Electric tachometer
 - (c) Electric engine hourmeter
 - (d) Ammeter or volt meter
 - (e) Oil pressure gauge
 - (f) Coolant temperature gauge
 - (g) Transmission oil temperature gauge or warning light
 - (h) Air brake pressure gauge
 2. Air Conditioning: Factory installed air conditioning. Shall include tinted glass all around.
 3. Windshield Wipers: Dual electric intermittent windshield wipers with washers.
 4. Seats: Three (3) person seating, including seat belts, consisting of an air suspension driver's seat and a two (2) person passenger seat.
 5. Radio: Factory installed electronic AM/FM radio.
 6. Heated Mirrors: Dual Heated West Coast Sr. type mirrors no less than 7" x 16" with adjustable brackets and auxiliary convex mirrors.
 7. Air Horn: Single or dual trumpet air horn.
- U. Hood: Tilting fiberglass hood and fenders.
- V. Lights: Shall be equipped with dual beam headlights, parking lights, clearance lights, automatic backup lights, directional turn signals with column mounted switch and hazard flasher switch. Rear signals to be wired for stop and tail lights in addition to directional signals.
- W. Backup Alarm: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 97 decibels.

X. Color: Cab, hood, fenders and wheels shall be Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal. Grill, bumper and mirrors shall be as regularly furnished by manufacturer.

2. Body:

A. Floor: Shall be no less than 96" wide outside and no less than 144" long. Floor shall consist of no more than three (3) pieces and be constructed of no less than 8 USS gauge smooth steel with a minimum tensile strength of 50,000 psi.

B. Understructure: Crossmembers shall be no less than 4" channel, 5.4 pounds per foot steel with a minimum tensile strength of 50,000 psi, or structural shape and size which provides equal strength, spaced on not more than 18" centers. Longitudinal members to be no less than 5" channel, 6.7 pounds per foot steel with a minimum tensile strength of 50,000 psi, or structural shape and size which provides equal strength. Each crossmember shall be securely welded to each longitudinal member with triangular gussets. Crossmembers shall be welded to floor and side rails. Side rails shall be no less than 4" channel, 5.4 pounds per foot steel with a minimum tensile strength of 50,000 psi, or structural shape and size of equal strength.

C. Sides And Tailgate: Body shall have removable sides and a fold down tailgate. Sides and tailgate shall be no less than 14" in height and be constructed of no less than 12 USS gauge steel material.

D. Cab Protector: Shall have a bulkhead at front of bed designed to protect rear of cab. Shall be approximately cab height and be constructed of no less than 10 USS gauge steel. Bulkhead shall have an opening covered with expanded metal to offer rear visibility. Nominal height and width of the bulkhead opening shall correspond with the size and location of the rear cab window of the cab & chassis.

E. Body Prop: Shall have a minimum of one (1) body prop to protect personnel working under body while raised. If only one body prop is used, it shall be mounted on left side of truck. Body prop/s shall be so designed that when placed in position it/they will remain in proper position to engage the body without being held in place or guided by the operator or an assistant.

F. Body Hinge: Body hinge to be heavy duty steel welded to longitudinals, or attached with Grade 8 bolts. Lower hinge to be incorporated in hoist subframe or in rear of truck frame if a subframe is not used. (Welding to truck frame is allowable at this point only.) Hinge shaft shall have a minimum diameter of 1-1/2" and be retained in such a way that the shaft does not rotate during operation of the body. Hinge assembly shall be greasable.

G. Mounting: Body shall be mounted on cab and chassis to allow a space of 52" - 55" between back of cab and cab protector for mounting of a plastic water tank by AHTD.

3. Hydraulic Hoist: Shall be underbody type (twin arm or combination twin arm and scissor) with one or more double acting cylinders. Shall be Class E or greater with a minimum capacity of 11 tons at 0" overhang and no less than 15 tons at 18" overhang, as rated by NTEA for a 12' body. Hoist shall be capable of raising the body to a maximum dumping angle of no less than 45 degrees and shall control the position of the body throughout the entire dumping cycle. The hoist shall stop automatically when the body reaches maximum dumping angle and retain its position until released.

4. Hydraulic Pump and Valve: Hydraulic pump shall be gear type with a capacity at 1,200 RPM of no less than 18 gpm at approximately 2,000 psi. The pump shall be designed to compensate for end thrust and the shafts shall turn on anti-friction roller or needle bearings. Pump furnished shall be for direct mounting to PTO with not less than a 7/8", 13 tooth splined input shaft. Hydraulic control valve shall be equipped with metering air control valve which allows full "feathering" control of dump body.

5. Hydraulic Reservoir: Shall be mounted on side of frame outside the frame rails and have a minimum capacity of 40 gallons. Reservoir shall be serviced with a minimum of 30 gallons of hydraulic oil to functionally operate the dump body hydraulic system. A low oil level limit switch shall be installed in the side of the reservoir. It shall be

positioned to actuate when the oil level reaches approximately 15 gallons. Once activated the limit switch shall disengage the PTO and illuminate a warning light in the cab of the truck. The reservoir shall have a minimum of three (3) ports in addition to those required for operation of the dump body. These ports will be no less than 1-1/4" NPT, plugged, and designed for future access to accommodate sand spreaders or similar equipment.

6. Power Take-Off: Shall be multi-gear type with flange bracket for direct mounting to hydraulic pump. Bearings shall be a high grade needle or roller bearings. Power take-off shall operate at not less than 85% or more than 125% of engine speed. Shall be equipped with hot shift type power take-off units for Allison 3500 RDS automatic transmissions with six speed programming. Mounting shall be located on right side of transmission. If right side mounting is not possible, left side mounting will be acceptable.
7. Controls: Hoist and PTO controls shall each be clearly labeled as to function. Holes cut in cab floor or firewall shall be properly sealed and/or insulated.
 - A. Hoist: Control for hydraulic valve shall be a metering air valve unit with raise, lower and neutral/hold positions. Control shall be suitable for a full "feathering" air control valve used with a double acting hoist cylinder.
 - B. PTO: Shall be controlled by a toggle switch with on and off positions. Shall have a pilot light to indicate when PTO is engaged. PTO shall remain engaged until it is dis-engaged by the operator. Control unit with automatic "kick-out" is not acceptable due to the necessity for spot dumping.
 - C. Control Console: PTO and hoist controls shall be installed in a console mounted in cab of truck in a location convenient to operator.
8. Additional Equipment: All necessary bolts, nuts, washers, hydraulic hoses, air lines, filter, reservoir with breather, etc. for mounting body on truck with 120" CA measurement shall be furnished.
9. Mud Flaps: Shall have mud flaps no less than 24" wide and 1/4" thick, without advertising, mounted behind rear wheels.
10. Lights and Reflectors: Side marker and clearance lights shall be bolt on armored type. Reflectors shall be bolt on type. (Recessed, rubber mounted, snap-in lights with reflector type lens and plug-in connectors may be used in lieu of armored lights and bolt on reflectors.) Lights and reflectors shall comply with Federal Motor Vehicle Safety Standard FMVSS108.
11. Serial Number: Each unit shall be provided with a manufacturer's serial number, unique to each unit, permanently attached by plate or engraving. This shall be placed in a discreet location. No additional dealer's or manufacturer's advertisement shall be placed on the body without prior approval of AHTD.
12. Color: Shall be primed and painted Sherwin Williams F1B-4009 Gloss Black Enamel, or equal.
13. Warranty:
 - A. Cab and chassis shall have truck manufacturer's regular warranty and service as regularly furnished on new vehicles sold to the public. Warranty data shall be furnished with each unit.
 - B. The dump body, hydraulic system, and other incidental equipment furnished under this specification shall be warranted against defective material and workmanship for a minimum period of (12) months (365 days) from date unit is placed in operation by AHTD.
 - (1) Warranty should include all parts, labor and transportation costs to the location of equipment.
 - (2) 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.
14. 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.
15. Manuals: Successful bidder shall furnish one copy of Parts Book and Service Instructions with each body. In addition, one (1) copy of Parts Book and Service Instructions shall be furnished to Equipment and 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 Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
16. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
17. Parts Inventory & Service Facilities: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
18. Demonstration: 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.
19. 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.

20. Inspection: The AHTD reserves the right to inspect bodies during manufacture, or prior to their installation, for compliance with specifications and to inspect hydraulics installation during work in progress. Location of hoists on truck chassis shall be approved by AHTD prior to installation. All workmanship shall be first class (no welding on truck frame to install dump body hoist). Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer.
21. Due to the nature of work performed by AHTD, any body-hoist combination furnished under this specification may be subject to use under adverse conditions such as dumping on road shoulders at a slight angle. The design and strength characteristics of the entire dump unit shall be such that the unit structural members and the hoisting system shall suffer no deformation, damage or structural failure resulting from raising a full payload under these conditions.
22. 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.

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

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIFICATION 12-167-036

FOR

TANDEM AXLE CAB AND CHASSIS

53,000 POUNDS GVWR

MANUAL TRANSMISSION WITH

CROSSMEMBERLESS DUMP BODY AND HOIST

12 CUBIC YARDS CAPACITY

1. GVWR: 53,000 pounds, minimum.
2. Cab to Axle: Nominal effective CA of 102" with vertical exhaust stack.
3. Intended Use: Twelve (12) cubic yard dump body.
4. Tires: Ten (10) steel belted tubeless radials, no less than 11R22.5 - "H" Load Range; Single Front and Dual Rear.
5. Wheels: Eleven (11) 22.5" Diameter tubeless type, hub piloted steel disc with 220 mm center hole, 285.75 mm 10 hole bolt circle diameter and not less than 8.25" rim section.
6. Engine: Liquid cooled 4 cycle diesel with a minimum piston displacement of 10.5 liters. Shall have an advertised rating of no less than 350 SAE gross horsepower and a minimum of 1,350 lb. ft. SAE gross torque. Governed speed shall be no less than 2,000 RPM. Shall have full flow oil filter(s), fuel filters, dry type air cleaner, 12 volt electrical equipment with no less than 130 amp alternator and maintenance free batteries as regularly furnished with engine specified. Engine shall be equipped with a block heater rated at no less than 1,000 watts which will operate on 120 volts AC.
7. Front Power Take-Off: Engine to be equipped with provision for front PTO drive. Shall include the necessary crankshaft adapter for attaching a shaft type drive and any other items required for this provision.
8. Cooling System: As recommended and regularly furnished by the manufacturer for use with the engine size and PTO provision specified above with anti-freeze protection to -20° F, or lower.
9. Exhaust System: Vertical exhaust stack with rain cap or curved outlet. Exhaust stack to be equipped with a heat shield. May be a single or dual system.
10. Engine Shutdown: Engine safety shutdown system with manual or automatic override to include the following features: low oil pressure - warning bell/buzzer plus shutdown, high coolant temperature - warning bell/buzzer plus shutdown and low coolant level - warning bell/buzzer plus light or shutdown.
11. Clutch: Heavy-duty type with torque capacity for engine furnished.
12. Transmission: Eaton Fuller RTO-14908LL or RTO-16908LL.
13. Steering: Hydraulic actuated power steering as regularly offered by manufacturer.
14. Front Axle: I Beam Type with wet seals, outboard mounted drums and a minimum capacity of 14,000 pounds.
15. Front Springs: As required to meet axle capacity specified above.
16. Rear Axle and Suspension: Tandem with power divider, inter-axle differential lock out control and Hendrickson RT or RTE equalizing beam type suspension. Shall be full floating with wet seals, outboard mounted drums and have a minimum capacity of 40,000 pounds. Shall have a ratio of 4.56, 4.63, 4.78, 4.88 or 4.89 to 1. Alternate ratio may be provided if approved by AHTD prior to delivery. (Axle ratio should provide a maximum theoretical geared speed of no less than 69 MPH and still provide acceptable startability.)
17. Air System: Air compressor shall have a minimum capacity of 15 cfm and draw air through the engine air cleaner. Air system shall be equipped with a heated air dryer.
18. Brakes: Factory installed full air operated two shoe type with automatic slack adjusters and dust shields on front and rear. Rear brakes shall have spring set parking brakes.

19. Trailer Controls: Shall be equipped with full trailer brake controls providing air brake and electrical hookup for straight truck with trailer applications. Shall include hand control valve and tractor protection valve. Air lines and 7-wire electric cable shall be routed to end of frame. Air lines to be equipped with glad hands and electric cable with 7-wire receptacle.
20. Frame: Section modulus and yield strength of frame material shall provide a minimum RBM of 2,000,000. Shall have 20" minimum front frame extension.
21. Cab: Conventional cab as regularly furnished by manufacturer, complete with insulation and all interior trim. Cab glass shall include windshield, roll-up windows in doors and rear cab glass as a minimum. Shall have key type lock on right and left doors, factory installed fresh air heater-defroster unit, grab handle on each side, right and left sun shades and fitted rubber floor mats.
 - A. Cab Mounts: Air suspension type rear cab mounts.
 - B. Instruments: Shall include the following as a minimum:
 - (1) Speedometer/odometer
 - (2) Electric tachometer
 - (3) Ammeter or volt meter
 - (4) Oil pressure gauge
 - (5) Coolant temperature gauge
 - (6) Air brake pressure gauge
 - C. Air Conditioning: Factory installed air conditioning. Shall include tinted glass all around.
 - D. Windshield Wipers: Dual electric intermittent windshield wipers with washers.
 - E. Auxiliary Switches: Shall be equipped with a minimum of six (6) rocker switches mounted in the instrument panel for use by bodybuilder or end user to supply power to work lights, warning lights and other auxiliary electrical devices.
 - F. Seats: Air suspension driver's seat and non-suspension passenger's seat. Shall include driver's and passenger's seat belts.
 - G. Radio: Factory installed electronic AM/FM/WB radio.
 - H. Heated Mirrors: Dual Heated West Coast Sr. type mirrors no less than 7" x 16" with adjustable brackets and auxiliary convex mirrors.
 - I. Air Horn: Single or dual trumpet air horn.
22. Hood: Tilting fiberglass or composite hood and fenders with stationary grill.
23. Front Bumper: Swept back or similar type front bumper compatible with front frame extension.
24. Lights: Shall be equipped with dual beam headlights, parking lights, clearance lights, automatic backup lights, directional turn signals with column mounted switch and hazard flasher switch. Rear signals to be wired for stop and tail lights in addition to directional signals.
25. Backup Alarm: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 97 decibels.
26. Fuel Tank(s): Single or dual fuel tanks with instrument panel fuel gauge. Minimum fuel capacity of 100 gallons.
27. Color: Cab, hood, fenders and wheels shall be Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal. Grill, bumper and mirrors shall be as regularly furnished by manufacturer.
28. Dump Body: Body to be no less than 96" wide outside and no less than 156" long inside (for installation on tandem axle truck with 102" CT measurement). Shall be all steel, no less than 12 cubic yards struck measure with sides the same height as ends. Sides shall be constructed of no less than 10 USS gauge steel with a minimum tensile strength of

50,000 psi. Floor shall consist of no more than one (1) piece and be constructed of no less than AR 400 steel with a minimum thickness of 3/16". There shall be a minimum of 80" of flat floor width and the floor to side shall have a minimum radius of 2" or a 45° slope. Front of body shall have no less than two (2) vertical or horizontal braces. Rear brace is to extend to the bottom of longitudinal members of body and be welded to rear apron. Sides shall have sloping rub rails and a top rail constructed of no less than 3" square tubing with a minimum wall thickness of .1875" (3/16"). Top rails shall be capped with no less than 2" x 2" x 1/4" inverted angle. Each side of body shall have a walk rail of approximately 1/4" x 1-1/2" flat steel. Top of walk rail shall be approximately 12" from bottom of body.

29. Asphalt Apron: Rear of body shall have an asphalt apron constructed of no less than 1/4" steel, with full size side plates, extending approximately 12" from main portion of body at a nominal 30° downward angle and across the full width of the body.
30. Tailgate: Shall be double acting type with offset upper hinges to assure closing of gate. Upper hinge shall have greasable pins with a minimum diameter of 1-1/4". Lower pivot of tailgate shall be held in place by tailgate control hooks. The latching mechanism for the tailgate control hooks shall be air operated. Tailgate shall be equipped with chains and hooks (or key hole eyes) for lowering to any position, or for spread control. When tailgate is down in horizontal position the tailgate shall be level with dump body floor with a space of not more than 1/2" between body and bottom of gate. Tailgate shall have a minimum of two (2) vertical or one (1) horizontal brace.
31. Body Prop: Shall have a minimum of one (1) body prop to protect personnel working under body while raised. If only one body prop is used, it shall be mounted on left side of truck. Body prop/s shall be so designed that when placed in position it/they will remain in proper position to engage the body without being held in place or guided by the operator or an assistant.
32. Cab Protector: Cab protector shall be constructed from not less than 10 USS gauge steel. Shall extend no less than 24" over cab and no less than 2" above cab. Shall be full width of bed and have gussets welded on each side for support. Front lip shall be formed from piece of sheet steel that makes protector and extend approximately 2" above top of protector. Sides are to extend above top of protector approximately 2".
33. Shovel Rack: Shall consist of two steel "L's" welded to the cab protector at front of bed of correct size and spacing to hold a square or round point shovel and a handle ring approximately 3" in diameter welded at bottom front of bed. (An alternate location or design of the shovel rack may be acceptable, but must be approved by AHTD prior to delivery.)
34. Understructure: Body furnished shall be crossmemberless design. Longitudinal members to be no less than 8" channel, 11.5 pounds per foot steel with a minimum tensile strength of 50,000 psi, or structural shape and size which provides equal strength. Rear of body is to have full depth and width apron no less than 8" deep from floor of body constructed of not less than 8 USS gauge steel with a minimum tensile strength of 50,000 psi. All structural members shall have adequate bracing. Longitudinals shall be welded at rear to apron.
35. Body Hinge: Shall be heavy duty steel welded to longitudinals, or attached with Grade 8 bolts. Lower hinge to be incorporated in rear of truck frame. (Welding to truck frame is allowable at this point only.) Hinge shaft shall have a minimum diameter of 2" and be retained in such a way that the shaft does not rotate during operation of the body. Hinge assembly shall be greasable.
36. Hydraulic Hoist: Shall be telescoping type, Class 70 or better, with a minimum capacity of 20 tons, as rated by NTEA for a 13' dump body. Hoist shall be capable of raising the body to an angle of no less than 50 degrees with a 12" overhang and shall control the position of the body throughout the entire dumping cycle. The hoist shall stop automatically when the body reaches the maximum dumping angle and retain its position until released. Hoist pin housing shall be constructed with sloping sides and not less than 1/4" plate cap.
37. Hydraulic Pump and Valve: Hydraulic pump shall be gear type with sufficient capacity to handle hydraulic system furnished. The pump shall be designed to compensate for end thrust and the shafts shall turn on anti-friction roller or needle bearings. Pump furnished shall be direct mounted to PTO with not less than a 7/8", 13 tooth splined input shaft. Hydraulic control valve shall be equipped with metering air control valve which allows full "feathering" control of dump body.
38. Hydraulic Reservoir: Shall be mounted on side of frame outside the frame rails with 1/4" minimum steel mounting brackets. Reservoir shall have a minimum capacity of 40 gallons and be serviced with a minimum of 30 gallons of hydraulic oil to functionally operate the dump body hydraulic system. A low oil level limit switch shall be installed in the side of the reservoir. It shall be positioned to actuate when the oil level reaches approximately 15 gallons. Once activated the limit switch shall disengage the PTO and illuminate a warning light in the cab of the truck. The reservoir shall have a minimum of three (3) ports in addition to those required for operation of the dump body. These ports will

be no less than 1-1/4" NPT, plugged, and designed for future access to accommodate sand spreaders or similar equipment.

39. Power Take-Off: Shall be a multi-gear type with flange bracket for direct mounting to hydraulic pump. Bearings shall be a high grade needle or roller bearings. Power take-off shall operate at not less than 85% or more than 125% of engine speed. Power-take-off shall be equipped with air shifter for mounting on bottom of transmission specified in item 12. Power-take-off and parts furnished shall be of sufficient strength and speed to amply take care of power required to operate hoist.
40. Controls: Hoist, PTO, and tailgate controls shall each be clearly labeled as to function. Holes cut in cab floor or firewall shall be properly sealed and/or insulated.
 - A. Hoist: Control for hydraulic valve shall be a metering air valve unit with raise, lower and neutral/hold positions. Control shall be suitable for operating metering air control valve.
 - B. Dump Angle Limit Switch: The controls shall include an air operated dump angle limit switch which stops hydraulic flow by returning the hydraulic valve to the neutral position to prevent over extension of the hydraulic cylinder (cable pull-off not acceptable). PTO: Shall have a pilot light to indicate when PTO is engaged. PTO shall remain engaged until it is dis-engaged by the operator. Control unit with automatic "kick-out" is not acceptable due to the necessity for spot dumping and for some material spreader applications. Unit shall be controlled by an air valve toggle unit with on and off positions.
 - C. Control Console: PTO and hoist controls shall be installed in a console mounted in cab of truck in a location convenient to operator.
 - D. Tailgate Latch Control: Control for air operated tail gate latch shall also be located in cab of truck, mounted in console with PTO and hoist controls, or separately, but in a location convenient to operator.
41. Additional Equipment: All necessary bolts, washers, nuts, hydraulic hoses, air lines, reservoir with filler filter and breather, etc. for mounting bodies on tandem axle trucks with 102" CT measurement shall be furnished. Shall have mud flaps no less than 24" wide and 1/4" thick, without advertising, mounted behind rear wheels.
42. Frame Cut-Off: If the installation process requires the rear frame rails to be cut off to allow the body to reach proper dump angle, only the amount required to allow proper operation should be removed. It is necessary that enough frame material be available behind the spring brackets to allow installation of a pintle hitch or other towing equipment if such items are deemed necessary by the receiving District.
43. Lights and Reflectors:
 - A. Side marker and clearance lights shall be bolt on, armored type. Reflectors shall be bolt on type. (Recessed, rubber mounted, snap-in lights with reflector type lens and plug-in connectors may be used in lieu of armored lights and bolt on reflectors.) Lights, including center mounted three light cluster, and reflectors shall comply with Federal Motor Vehicle Safety Standard FMVSS108.
 - B. Stop, tail and turn signal lights that are furnished with truck shall be left in place unless relocation is required to mount body.
 - C. An additional recessed and rubber mounted multiple LED stop, tail and turn signal light with approximate dimensions of 2" wide x 6" high shall be mounted in each rear corner post. Each light assembly shall have a minimum of twelve (12) LED's. Lights to be located from slightly below to slightly above center point of corner posts.
44. Tarping System: An electrically operated dump body covering system (Aero Industries Model 575 or approved equal) shall be furnished and completely installed on the dump body. System shall consist of a roll-up bar with 12-volt electric motor, a cab operated switch, spring loaded arms and a tarp. The 12-volt motor shall have a right angle drive gearbox. The gears shall be hardened and ground steel and shall be designed to insure that the tarp cannot back-drive. The cab installed switch shall be mounted in the cab and located on the dump body control console. The tarp shall be of adequate length to properly cover the loaded body, and shall be constructed of a RFL dipped chemically treated fabric, suitable for asphalt. The tarping unit shall be "cab pro" mounted to the rear side plates of the cab protector using 1/4" mounting ears. The tarp should be positioned as high as practical while low enough to allow the cab protector to act as the wind deflector. The tarp arm springs shall be in an enclosed aluminum housing. (Exposed springs are not acceptable.) All parts and accessories necessary for proper operation of the dump body tarping system, including all necessary wire fasteners and electric hardware, shall be furnished

45. Serial Number: Each unit shall be provided with a manufacturer's serial number, unique to each unit, permanently attached by plate or engraving. This shall be placed in a discreet location. No additional dealer's or manufacturer's advertisement shall be placed on the body without prior approval of AHTD.
46. Color: Dump Body shall be primed and painted Sherwin Williams F1B-4009 Gloss Black Enamel, or equal. Finish painting of the inside bottom of the body is not necessary.
47. Warranty:
- A. Cab and chassis shall have truck manufacturer's regular warranty and service as regularly furnished on new vehicles sold to the public. Warranty data shall be furnished with each unit.
 - B. The dump body, hydraulic system, and other incidental equipment furnished under this specification shall be warranted against defective material and workmanship for a minimum period of (12) months (365 days) from date unit is placed in operation by AHTD.
 - (1) Warranty should include all parts, labor and transportation costs to the location of equipment.
 - (2) 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.
48. 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. Units 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.
49. Manuals: Successful bidder shall furnish one copy of Parts Book and Service Instructions with each unit. In addition, one (1) copy of Parts Book and Service Instructions shall be furnished to Equipment and 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 Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
50. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
51. Parts Inventory & Service Facilities: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.

52. Demonstration: 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.
53. 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.
54. Inspection: The AHTD reserves the right to inspect bodies during manufacture, or prior to their installation, for compliance with specifications and to inspect hydraulics installation during work in progress. Location of hoists on truck chassis shall be approved by AHTD prior to installation. All workmanship shall be first class (no welding on truck frame to install dump body hoist). Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer.
55. Due to the nature of work performed by AHTD, any body-hoist combination furnished under this specification may be subject to use under adverse conditions such as dumping on road shoulders at a slight angle and spot dumping of loads. The design and strength characteristics of the entire dump unit shall be such that the unit structural members and the hoisting system shall suffer no deformation, damage or structural failure resulting from raising a full payload under these conditions.
56. Delivery Requirements: It will be the responsibility of the Successful Bidder to guarantee delivery of the cab & chassis as specified, including items or equipment installed by a third party contractor, within the quoted time.
57. 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.

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

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIFICATION 12-168-038

FOR

TANDEM AXLE CAB AND CHASSIS
53,000 POUNDS GVWR
AUTOMATIC TRANSMISSION WITH
CROSSMEMBERLESS DUMP BODY AND HOIST
12 CUBIC YARDS CAPACITY

1. GVWR: 53,000 pounds, minimum.
2. Cab to Axle: Nominal effective CA of 102" with vertical exhaust stack.
3. Intended Use: Twelve (12) cubic yard dump body.
4. Tires: Ten (10) steel belted tubeless radials, no less than 11R22.5 - "H" Load Range; Single Front and Dual Rear.
5. Wheels: Eleven (11) 22.5" Diameter tubeless type, hub piloted steel disc with 220 mm center hole, 285.75 mm 10 hole bolt circle diameter and not less than 8.25" rim section.
6. Engine: Liquid cooled 4 cycle diesel with a minimum piston displacement of 10.5 liters. Shall have an advertised rating of no less than 350 SAE gross horsepower and a minimum of 1,350 lb. ft. SAE gross torque. Governed speed shall be no less than 2,000 RPM. Shall have full flow oil filter(s), fuel filters, dry type air cleaner, 12 volt electrical equipment with no less than 130 amp alternator and maintenance free batteries as regularly furnished with engine specified. Engine shall be equipped with a block heater rated at no less than 1,000 watts which will operate on 120 volts AC.
7. Front Power Take-Off: Engine to be equipped with provision for front PTO drive. Shall include the necessary crankshaft adapter for attaching a shaft type drive and any other items required for this provision.
8. Cooling System: As recommended and regularly furnished by the manufacturer for use with the engine size and PTO provision specified above with anti-freeze protection to -20° F, or lower.
9. Exhaust System: Vertical exhaust stack with rain cap or curved outlet. Exhaust stack to be equipped with a heat shield. May be a single or dual system.
10. Engine Shutdown: Engine safety shutdown system with manual or automatic override to include the following features: low oil pressure - warning bell/buzzer plus shutdown, high coolant temperature - warning bell/buzzer plus shutdown and low coolant level - warning bell/buzzer plus light or shutdown.
11. Transmission: Allison 4500 RDS automatic with six speed programming and PTO provision. Transmission shall have synthetic lubricant and be equipped with a transmission oil cooler.
12. Steering: Hydraulic actuated power steering as regularly offered by manufacturer.
13. Front Axle: I Beam Type with wet seals, outboard mounted drums and a minimum capacity of 14,000 pounds.
14. Front Springs: As required to meet axle capacity specified above.
15. Rear Axle and Suspension: Tandem with power divider, inter-axle differential lock out control and Hendrickson RT or RTE equalizing beam type suspension. Shall be full floating with wet seals, outboard mounted drums and have a minimum capacity of 40,000 pounds. Shall have a ratio of 4.88, 5.29 or 5.57 to 1. Alternate ratio may be provided if approved by AHTD prior to delivery. (Axle ratio should provide a maximum theoretical geared speed of no less than 69 MPH and still provide acceptable startability.)
16. Air System: Air compressor shall have a minimum capacity of 15 cfm and draw air through the engine air cleaner. Air system shall be equipped with a heated air dryer.
17. Brakes: Factory installed full air operated two shoe type with automatic slack adjusters and dust shields on front and rear. Rear brakes shall have spring set parking brakes.

18. Trailer Controls: Shall be equipped with full trailer brake controls providing air brake and electrical hookup for straight truck with trailer applications. Shall include hand control valve and tractor protection valve. Air lines and 7-wire electric cable shall be routed to end of frame. Air lines to be equipped with glad hands and electric cable with 7-wire receptacle.
19. Frame: Section modulus and yield strength of frame material shall provide a minimum RBM of 2,000,000. Shall have 20" minimum front frame extension.
20. Cab: Conventional cab as regularly furnished by manufacturer, complete with insulation and all interior trim. Cab glass shall include windshield, roll-up windows in doors and rear cab glass as a minimum. Shall have key type lock on right and left doors, factory installed fresh air heater-defroster unit, grab handle on each side, right and left sun shades and fitted rubber floor mats.
 - A. Cab Mounts: Air suspension type rear cab mounts.
 - B. Instruments: Shall include the following as a minimum:
 - (1) Speedometer/odometer
 - (2) Electric tachometer
 - (3) Ammeter or volt meter
 - (4) Oil pressure gauge
 - (5) Coolant temperature gauge
 - (6) Transmission oil temperature gauge or warning light
 - (7) Air brake pressure gauge
 - C. Air Conditioning: Factory installed air conditioning. Shall include tinted glass all around.
 - D. Windshield Wipers: Dual electric intermittent windshield wipers with washers.
 - E. Auxiliary Switches: Shall be equipped with a minimum of six (6) rocker switches mounted in the instrument panel for use by bodybuilder or end user to supply power to work lights, warning lights and other auxiliary electrical devices.
 - F. Seats: Air suspension driver's seat and non-suspension passenger's seat. Shall include driver's and passenger's seat belts.
 - G. Radio: Factory installed electronic AM/FM/WB radio.
 - H. Heated Mirrors: Dual Heated West Coast Sr. type mirrors no less than 7" x 16" with adjustable brackets and auxiliary convex mirrors.
 - I. Air Horn: Single or dual trumpet air horn.
21. Hood: Tilting fiberglass or composite hood and fenders with stationary grill.
22. Front Bumper: Swept back or similar type front bumper compatible with front frame extension.
23. Lights: Shall be equipped with dual beam headlights, parking lights, clearance lights, automatic backup lights, directional turn signals with column mounted switch and hazard flasher switch. Rear signals to be wired for stop and tail lights in addition to directional signals.
24. Backup Alarm: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 97 decibels.
25. Fuel Tank(s): Single or dual fuel tanks with instrument panel fuel gauge. Minimum fuel capacity of 100 gallons.
26. Color: Cab, hood, fenders and wheels shall be Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal. Grill, bumper and mirrors shall be as regularly furnished by manufacturer.

27. Dump Body: Body to be no less than 96" wide outside and no less than 156" long inside (for installation on tandem axle truck with 102" CT measurement). Shall be all steel, no less than 12 cubic yards struck measure with sides the same height as ends. Sides shall be constructed of no less than 10 USS gauge steel with a minimum tensile strength of 50,000 psi. Floor shall consist of no more than one (1) piece and be constructed of no less than AR 400 steel with a minimum thickness of 3/16". There shall be a minimum of 80" of flat floor width and the floor to side shall have a minimum radius of 2" or a 45° slope. Front of body shall have no less than two (2) vertical or horizontal braces. Rear brace is to extend to the bottom of longitudinal members of body and be welded to rear apron. Sides shall have sloping rub rails and a top rail constructed of no less than 3" square tubing with a minimum wall thickness of .1875" (3/16"). Top rails shall be capped with no less than 2" x 2" x 1/4" inverted angle. Each side of body shall have a walk rail of approximately 1/4" x 1-1/2" flat steel. Top of walk rail shall be approximately 12" from bottom of body.
28. Asphalt Apron: Rear of body shall have an asphalt apron constructed of no less than 1/4" steel, with full size side plates, extending approximately 12" from main portion of body at a nominal 30° downward angle and across the full width of the body.
29. Tailgate: Shall be double acting type with offset upper hinges to assure closing of gate. Upper hinge shall have greasable pins with a minimum diameter of 1-1/4". Lower pivot of tailgate shall be held in place by tailgate control hooks. The latching mechanism for the tailgate control hooks shall be air operated. Tailgate shall be equipped with chains and hooks (or key hole eyes) for lowering to any position, or for spread control. When tailgate is down in horizontal position the tailgate shall be level with dump body floor with a space of not more than 1/2" between body and bottom of gate. Tailgate shall have a minimum of two (2) vertical or one (1) horizontal brace.
30. Body Prop: Shall have a minimum of one (1) body prop to protect personnel working under body while raised. If only one body prop is used, it shall be mounted on left side of truck. Body prop/s shall be so designed that when placed in position it/they will remain in proper position to engage the body without being held in place or guided by the operator or an assistant.
31. Cab Protector: Cab protector shall be constructed from not less than 10 USS gauge steel. Shall extend no less than 24" over cab and no less than 2" above cab. Shall be full width of bed and have gussets welded on each side for support. Front lip shall be formed from piece of sheet steel that makes protector and extend approximately 2" above top of protector. Sides are to extend above top of protector approximately 2".
32. Shovel Rack: Shall consist of two steel "L's" welded to the cab protector at front of bed of correct size and spacing to hold a square or round point shovel and a handle ring approximately 3" in diameter welded at bottom front of bed. (An alternate location or design of the shovel rack may be acceptable, but must be approved by AHTD prior to delivery.)
33. Understructure: Body furnished shall be crossmemberless design. Longitudinal members to be no less than 8" channel, 11.5 pounds per foot steel with a minimum tensile strength of 50,000 psi, or structural shape and size which provides equal strength. Rear of body is to have full depth and width apron no less than 8" deep from floor of body constructed of not less than 8 USS gauge steel with a minimum tensile strength of 50,000 psi. All structural members shall have adequate bracing. Longitudinals shall be welded at rear to apron.
34. Body Hinge: Shall be heavy duty steel welded to longitudinals, or attached with Grade 8 bolts. Lower hinge to be incorporated in rear of truck frame. (Welding to truck frame is allowable at this point only.) Hinge shaft shall have a minimum diameter of 2" and be retained in such a way that the shaft does not rotate during operation of the body. Hinge assembly shall be greasable.
35. Hydraulic Hoist: Shall be telescoping type, Class 70 or better, with a minimum capacity of 20 tons, as rated by NTEA for a 13' dump body. Hoist shall be capable of raising the body to an angle of no less than 50 degrees with a 12" overhang and shall control the position of the body throughout the entire dumping cycle. The hoist shall stop automatically when the body reaches the maximum dumping angle and retain its position until released. Hoist pin housing shall be constructed with sloping sides and not less than 1/4" plate cap.
36. Hydraulic Pump and Valve: Hydraulic pump shall be gear type with sufficient capacity to handle hydraulic system furnished. The pump shall be designed to compensate for end thrust and the shafts shall turn on anti-friction roller or needle bearings. Pump furnished shall be direct mounted to PTO with not less than a 7/8", 13 tooth splined input shaft. Hydraulic control valve shall be equipped with metering air control valve which allows full "feathering" control of dump body.
37. Hydraulic Reservoir: Shall be mounted on side of frame outside the frame rails with 1/4" minimum steel mounting brackets. Reservoir shall have a minimum capacity of 40 gallons and be serviced with a minimum of 30 gallons of hydraulic oil to functionally operate the dump body hydraulic system. A low oil level limit switch shall be installed in the side of the reservoir. It shall be positioned to actuate when the oil level reaches approximately 15 gallons. Once

activated the limit switch shall disengage the PTO and illuminate a warning light in the cab of the truck. The reservoir shall have a minimum of three (3) ports in addition to those required for operation of the dump body. These ports will be no less than 1-1/4" NPT, plugged, and designed for future access to accommodate sand spreaders or similar equipment.

38. Power Take-Off: Shall be a multi-gear type with flange bracket for direct mounting to hydraulic pump. Bearings shall be a high grade needle or roller bearings. Power take-off shall operate at not less than 85% or more than 125% of engine speed. Shall be equipped with "hot shift" type power-take-off units for Allison 4500 RDS automatic transmissions with six speed programming. Power-take-off and parts furnished shall be of sufficient strength and speed to amply take care of power required to operate hoist.
39. Controls: Hoist, PTO, and tailgate controls shall each be clearly labeled as to function. Holes cut in cab floor or firewall shall be properly sealed and/or insulated.
 - A. Hoist: Control for hydraulic valve shall be a metering air valve unit with raise, lower and neutral/hold positions. Control shall be suitable for operating metering air control valve.
 - B. Dump Angle Limit Switch: The controls shall include an air operated dump angle limit switch which stops hydraulic flow by returning the hydraulic valve to the neutral position to prevent over extension of the hydraulic cylinder (cable pull-off not acceptable). PTO: Shall have a pilot light to indicate when PTO is engaged. PTO shall remain engaged until it is dis-engaged by the operator. Control unit with automatic "kick-out" is not acceptable due to the necessity for spot dumping and for some material spreader applications. Unit shall be controlled by an air valve toggle unit with on and off positions.
 - C. Control Console: PTO and hoist controls shall be installed in a console mounted in cab of truck in a location convenient to operator.
 - D. Tailgate Latch Control: Control for air operated tail gate latch shall also be located in cab of truck, mounted in console with PTO and hoist controls, or separately, but in a location convenient to operator.
40. Additional Equipment: All necessary bolts, washers, nuts, hydraulic hoses, air lines, reservoir with filler filter and breather, etc. for mounting bodies on tandem axle trucks with 102" CT measurement shall be furnished. Shall have mud flaps no less than 24" wide and 1/4" thick, without advertising, mounted behind rear wheels.
41. Frame Cut-Off: If the installation process requires the rear frame rails to be cut off to allow the body to reach proper dump angle, only the amount required to allow proper operation should be removed. It is necessary that enough frame material be available behind the spring brackets to allow installation of a pintle hitch or other towing equipment if such items are deemed necessary by the receiving District.
42. Lights and Reflectors:
 - A. Side marker and clearance lights shall be bolt on, armored type. Reflectors shall be bolt on type. (Recessed, rubber mounted, snap-in lights with reflector type lens and plug-in connectors may be used in lieu of armored lights and bolt on reflectors.) Lights, including center mounted three light cluster, and reflectors shall comply with Federal Motor Vehicle Safety Standard FMVSS108.
 - B. Stop, tail and turn signal lights that are furnished with truck shall be left in place unless relocation is required to mount body.
 - C. An additional recessed and rubber mounted multiple LED stop, tail and turn signal light with approximate dimensions of 2" wide x 6" high shall be mounted in each rear corner post. Each light assembly shall have a minimum of twelve (12) LED's. Lights to be located from slightly below to slightly above center point of corner posts.
43. Tarping System: An electrically operated dump body covering system (Aero Industries Model 575 or approved equal) shall be furnished and completely installed on the dump body. System shall consist of a roll-up bar with 12-volt electric motor, a cab operated switch, spring loaded arms and a tarp. The 12-volt motor shall have a right angle drive gearbox. The gears shall be hardened and ground steel and shall be designed to insure that the tarp cannot back-drive. The cab installed switch shall be mounted in the cab and located on the dump body control console. The tarp shall be of adequate length to properly cover the loaded body, and shall be constructed of a RFL dipped chemically treated fabric, suitable for asphalt. The tarping unit shall be "cab pro" mounted to the rear side plates of the cab protector using 1/4" mounting ears. The tarp should be positioned as high as practical while low enough to allow the cab protector to act as the wind deflector. The tarp arm springs shall be in an enclosed aluminum housing. (Exposed springs are not acceptable.) All parts and accessories necessary for proper operation of the dump body tarping system, including all necessary wire fasteners and electric hardware, shall be furnished

44. Serial Number: Each unit shall be provided with a manufacturer's serial number, unique to each unit, permanently attached by plate or engraving. This shall be placed in a discreet location. No additional dealer's or manufacturer's advertisement shall be placed on the body without prior approval of AHTD.
45. Color: Dump Body shall be primed and painted Sherwin Williams F1B-4009 Gloss Black Enamel, or equal. Finish painting of the inside bottom of the body is not necessary.
46. Warranty:
- A. Cab and chassis shall have truck manufacturer's regular warranty and service as regularly furnished on new vehicles sold to the public. Warranty data shall be furnished with each unit.
 - B. The dump body, hydraulic system, and other incidental equipment furnished under this specification shall be warranted against defective material and workmanship for a minimum period of (12) months (365 days) from date unit is placed in operation by AHTD.
 - (1) Warranty should include all parts, labor and transportation costs to the location of equipment.
 - (2) 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.
47. 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. Units 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.
48. Manuals: Successful bidder shall furnish one copy of Parts Book and Service Instructions with each unit. In addition, one (1) copy of Parts Book and Service Instructions shall be furnished to Equipment and 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 Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
49. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
50. Parts Inventory & Service Facilities: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.

51. Demonstration: 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.
52. 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.
53. Inspection: The AHTD reserves the right to inspect bodies during manufacture, or prior to their installation, for compliance with specifications and to inspect hydraulics installation during work in progress. Location of hoists on truck chassis shall be approved by AHTD prior to installation. All workmanship shall be first class (no welding on truck frame to install dump body hoist). Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer.
54. Due to the nature of work performed by AHTD, any body-hoist combination furnished under this specification may be subject to use under adverse conditions such as dumping on road shoulders at a slight angle and spot dumping of loads. The design and strength characteristics of the entire dump unit shall be such that the unit structural members and the hoisting system shall suffer no deformation, damage or structural failure resulting from raising a full payload under these conditions.
55. Delivery Requirements: It will be the responsibility of the Successful Bidder to guarantee delivery of the cab & chassis as specified, including items or equipment installed by a third party contractor, within the quoted time.
56. 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.

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