

**ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS
AHTD-EQUIPMENT AND PROCUREMENT DIVISION**

BID SHEET

Contract No.: H-17-308H

BIDDER: _____

1. **3** – Road Sweeper, Regenerative Type, Truck Mounted Diesel, Upper and Lower Engine to meet AHTD Spec. **17-320-194.**

FOB: 1 ea. - AHTD – District 8 Headquarters, 372 Aspen Lane, Russellville, AR 72801

1 ea. – AHTD – District 9 Headquarters, 4590 Highway 65 South, Harrison, AR 72601

1 ea. – AHTD – District 10 Headquarters, 2510 West Kingshighway, Paragould, AR 72450

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

Cab & Chassis proposed as meeting specifications:

Make _____ Model _____ Warranty _____ Each \$ _____

Sweeper Engine proposed as meeting specifications:

Make _____ Model _____ Warranty _____ Each \$ _____

Guaranteed Delivery Date _____

Additional Units may be purchased at the same pricing and conditions through _____
(Date)

BID TOTAL \$ _____

STANDARD BID CONDITIONS

1. **GENERAL:** Any special terms and conditions included in the invitation for bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the Arkansas State Highway and Transportation Department (AHTD).
2. **ACCEPTANCE AND REJECTION:** 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.
3. **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.
4. **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.
5. **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.
6. **"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.
7. **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.
8. **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.
9. **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.
10. **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.

11. **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.
12. **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.
13. **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.
14. **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.
15. **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).
16. **NOTICE OF NONDISCRIMINATION:** The Arkansas State Highway Commission through the AHTD complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the AHTD does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the AHTD's programs and activities, as well as the hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the AHTD'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@ahtd.ar.gov. Free language assistance for Limited English Proficient individuals is available upon request. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.
17. **PROHIBITION OF EMPLOYMENT OF ILLEGAL IMMIGRANTS:** Pursuant to Arkansas Code Annotated 19-11-105, all bidders must certify prior to award of a contract that they **do not** employ or contract with any illegal immigrant(s) in its contract with the state. Bidders shall certify online at <https://www.ark.org/dfa/immigrant/index.php>.
18. **DISCLOSURE:** Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that order, **shall** be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy **shall** be subject to all legal remedies available to the agency.

ATTACHMENT A

ELIGIBLE BIDDER CERTIFICATION

The Bidder represents and warrants for itself, its employees and its subcontractors and certifies they:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding thus Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph two (2) of this Certification;
4. Have not within a one-year period preceding this application/Bid had one or more public transactions (Federal, State, or local) terminated for cause or default; and

The Bidder represents, warrants and acknowledges the understanding that restrictions placed on the employment of labor or on the scale of pay for the work on a contract will be the requirements of the Fair Labor Standards Act (Federal Wage-Hour Law) of 1938, 28 USC §201 et seq., and other applicable labor laws.

The person executing this Certification further represents, warrants and affirms the truthfulness and accuracy of the contents of the statements submitted on or with this Certification and understands that the provisions of 31 USC §3801 et seq. are applicable thereto.

BIDDER NAME

BY: _____

Signature

TITLE: _____

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SUBCONTRACTOR:

SUBCONTRACTOR NAME:

Yes No

IS THIS FOR:

TAXPAYER ID NAME:

Goods? Services? Both?

YOUR LAST NAME:

FIRST NAME:

M.I.:

ADDRESS:

CITY:

STATE:

ZIP CODE:

COUNTY:

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS*

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former: member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (✓)		Name of Position of Job Held <small>(senator, representative, name of board/ commission, data entry, etc.)</small>	For How Long?		What is the person(s) name and how are they related to you? <small>(i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.)</small>	
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Relation
General Assembly							
Constitutional Officer							
State Board or Commission Member							
State Employee							

None of the above applies

FOR AN ENTITY (BUSINESS)*

Indicate below If any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (✓)		Name of Position of Job Held <small>(senator, representative, name of board/ commission, data entry, etc.)</small>	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?		
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								

None of the above applies

Contract and Grant Disclosure and Certification Form

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.

2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM** completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

Signature _____	Title _____	Date _____
Vendor Contact Person _____	Title _____	Phone No. _____

Agency Use Only				
Agency Number _____	Agency Name _____	Agency Contact Person _____	Contact Phone No. _____	Contract or Grant No. _____

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIFICATION 17-320-194

FOR

TRUCK MOUNTED REGENERATIVE AIR SWEEPER

A. General Conditions:

1. **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. **Literature:** 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. **Manuals:** 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. **Training:** The successful bidder shall furnish qualified personnel to instruct AHTD operators and service technicians on operation and maintenance of machine.

In addition, the successful bidder shall furnish information on any factory service schools which would be available for AHTD service technicians.
6. Shall be assembled, adjusted and made ready for continuous operation at time of delivery.
7. All parts, accessories and tools necessary for satisfactory operation of this unit 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).
8. **Parts Inventory & Service Facilities:** The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
9. **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.
10. **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.

B. Sweeper Specifications:

1. **General:** This specification is intended to cover a self-propelled regenerative air sweeper which has a hopper with a minimum volumetric capacity of 7.3 cubic yards and a minimum effective loading capacity of 6 cubic yards, right and left hand gutter brooms, and pick up head providing a minimum sweeping swath of 87". Unit shall consist of a sweeper unit completely mounted on a conventional type cab and chassis and ready for operation. Sweeper unit and Cab and Chassis shall meet the following minimum specifications.
2. **Sweeper:**
 - A. **Power Unit:** Liquid cooled diesel engine with a minimum piston displacement of 4.5 liters developing no less than 99 horsepower at not more than 2,400 RPM. (Engine provided will be acceptable if it is manufactured by and branded as a product of Cummins or John Deere. If an engine from another manufacturer is proposed, it must be approved by AHTD prior to bid opening.) Shall have 12 volt electric starter, lube oil and fuel filters, two stage heavy duty air cleaner with air restriction indicator in cab of truck and all other equipment and accessories necessary for operation. Shall have automatic engine shutdown for high water temperature, low coolant level and low oil pressure. Cooling system shall have anti-freeze protection to -20° F, or lower. Engine and components, including radiator, shall be protected from weather and debris by a sheet metal enclosure.
 - B. **Controls:** A high resolution, color LCD multi-function touchscreen display that provides the operator information on the status of the sweeper and auxiliary engine shall be provided. Display shall provide service hours for the auxiliary engine and hydraulic system fluids and filters. Display shall provide lifetime and trip information for the sweeper power unit and record lifetime and trip curb miles swept. Shall have all necessary instruments and controls to actuate and control operation of the sweeper unit mounted in truck cab. All controls and displays shall be accessible from either right or left operator seat.
 - C. **Blower:** Centrifugal type fan no less than 30" in diameter constructed of high strength aluminum alloy with a wear resistant rubber surface or, constructed of abrasion resistant steel. Shall run on anti-friction bearings and be driven by power unit specified above. Bearings shall be sealed and lubricated or be equipped with an automatic lube system. Housing to be lined with a full length and width replaceable wear resistant liner, or, constructed of abrasion resistant steel.
 - D. **Pick-up Head:** Shall be a spring balanced pick-up head with a sweeping width of no less than 87", capable of operating in either forward or reverse direction. Air pressure hose shall have a minimum diameter of 14" and suction hose shall have a minimum diameter of 12.75". The pick-up head shall be raised and lowered hydraulically with in-cab controls. Shall be supported on steel runners with carbide inserts when in operating position. Runners shall be angled at each end allowing both forward and backward operation of the unit without lifting the pick-up head.
 - E. **Pressure Bleeder:** Shall be equipped with a pressure relief device designed to assist in removal of leaves, grass, paper and other light materials. Pressure relief device shall be actuated by either an electric motor or hydraulic cylinder. Shall be controlled by a switch located in the cab, convenient to the operator.
 - F. **Gutter Brooms:** Shall be wire filled vertical digger type, no less than 42" in diameter, mounted on right and left side of sweeper, and be controlled from sweeper cab. Shall be hydraulic motor driven and operated vertically and laterally by means of air or hydraulic cylinders. Shall be infinitely adjustable for pattern and wear. Gutter broom down pressure shall automatically adjust to requirement. Shall be complete with one additional set of filled gutter brooms for both sides of sweeper.
 - (1) **Gutter Broom Tilt:** Each gutter broom (right and left) shall additionally incorporate a tilt capability, remotely controlled from cab of sweeper, to allow instant adjustment for debris removal from deep gutters.
 - (2) **Gutter Broom Drop-Down:** Shall be equipped with a gutter broom override feature which allows the operator to switch from normal gutter broom extension to an inboard operation of the gutter brooms to allow the gutter brooms to drop down underneath the sweeper in front of the pick-up head area for road surface agitation. There shall be a control for each gutter broom allowing independent operation of the drop-down feature. Controls shall be located in the cab of the sweeper.
 - G. **Dust Separator:** Separation of the dirt and refuse from the air stream shall be accomplished within the hopper by means of a centrifugal dust separator. The separator housing shall be constructed of abrasion resistant material. A steel screen shall be provided to allow air to move freely from the hopper into the centrifugal dust separator.
 - H. **Hopper:** Shall have a minimum volumetric capacity of 7.3 cubic yards with a minimum effective loading capacity of 6 cubic yards. Shall have hydraulically operated quick opening dump system controlled from either side of sweeper. Shall have a warning light in cab to indicate when hopper is full. The rear door of hopper shall be opened with hydraulic cylinders.

- I. Hydraulic System: Shall be adequate for use within the design requirement of sweeper and shall include the following: 80 mesh suction strainer, reservoir, replaceable hydraulic filter with condition indicator, drive motors, cylinders, control valves, relief valves, oil cooler, hoses and standard fittings. The hydraulic pump shall be belt or gear driven from auxiliary engine.
 - J. Auxiliary Hydraulic System: Shall be equipped with a 12 volt auxiliary hydraulic system which can be used to raise/lower the pick-up head and gutter brooms, and to dump the hopper, without using the auxiliary engine.
 - K. Dust Control Water System: Shall have a high pressure, low volume water spray system for dust control. Spray system shall have sufficient nozzles to adequately cover the sweeping path of gutter brooms and pickup head. Water tank shall be constructed of polyethylene and have a minimum capacity of 220 gallons. Controls for spray system shall be operated from cab of sweeper. A water fill hose no less than 20' long, complete with 2-1/2 inch NST bronze coupling for fire hydrant, and a hose storage rack shall be provided.
 - L. Wash Down System: Shall have a high pressure wash down system complete with no less than 20' of high pressure wash down hose and quick disconnects on both sides of sweeper.
 - M. Hopper Deluge System: Shall consist of a high volume nozzle located in the hopper which attaches to a fire hydrant, by means of the water fill hose, to flush the hopper.
 - N. Auxiliary Hand Hose: Shall be no less than 8" in diameter, connected to hopper so that hose can be moved from side to side.
 - (1) Assembly shall have a minimum working reach of 10'.
 - (2) Shall have a nozzle no less than 48" long for cleaning catch basins.
 - (3) Assembly shall be supported from a swivel boom and be equipped with hydraulic boom assist for ease of use.
3. Cab & Chassis: Single rear axle cab & chassis with conventional type cab.
- A. GVWR: No less than 33,000 pounds.
 - B. Wheelbase: As required for specified minimum effective CA.
 - C. Cab to Axle: 84" minimum effective CA, 96" maximum effective CA.
 - D. 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 660 lb. ft. SAE gross torque. Shall have a minimum governed speed of 2,200 RPM. Shall have full flow oil filter(s), fuel filters, dry type air cleaner, 12 volt electrical equipment with no less than 160 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.
 - E. Cooling System: As recommended and regularly furnished by the manufacturer for use with engine size specified above with anti-freeze protection to -20° F, or lower.
 - F. Exhaust System: Horizontal or vertical exhaust as required by sweeper manufacturer. If vertical, exhaust stack shall have a rain cap or curved outlet and be equipped with a heat shield.
 - G. Engine Shutdown: Shall have engine safety shutdown system with manual or automatic override. System shall 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.
 - H. Fuel Tank: Minimum capacity of 50 gallons. Shall supply fuel to both engines.
 - I. Transmission: Allison 3500 RDS automatic with six speed programming. Transmission shall have synthetic lubricant and be equipped with a transmission oil cooler.
 - J. Steering: Hydraulic actuated power steering as regularly offered by manufacturer. Shall include dual operator controls in cab providing left and right hand steering.
 - K. Front Axle: I Beam Type with wet seals, outboard mounted drums and a minimum capacity of 12,000 pounds.
 - L. Rear Axle: Single speed full-floating type with wet seals, outboard mounted drums and a minimum capacity of 21,000 pounds. Ratio of 6.14, 6.17, 6.43, 6.50 or 6.83 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 66 MPH and still provide acceptable startability.)
 - M. Springs: As required to meet GVWR and axle ratings specified above. Rear springs shall consist of both main and auxiliary or overloads.

- N. Tires: Minimum of six (6) no less than 11R22.5 - "G" Load Range Steel Belted Tubeless Radials; Single Front and Dual Rear.
 - O. 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.
 - P. 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.
 - Q. 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.
 - R. Frame: Section modulus and yield strength of frame material shall provide a minimum RBM of 1,210,000.
 - S. Cab: Shall be full width, "Enclosed Type" conventional cab as regularly furnished by manufacturer, with full width doors and be 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 locks on doors, factory installed fresh air heater-defroster unit, right and left sun shades and fitted rubber floor mat.
 - (1) Instruments: Shall have all necessary instruments and controls to actuate and control operation of sweeper and include the following as a minimum:
 - (a) Speedometer/odometer
 - (b) Tachometers for main and auxiliary engines
 - (c) Ammeter or charge indicator
 - (d) Oil pressure gauges for main and auxiliary engines
 - (e) Coolant temperature gauges for main and auxiliary engines
 - (f) Transmission oil temperature gauge or warning light
 - (g) Electric hour meters for main and auxiliary engines
 - (h) Fuel gauge
 - (i) Air brake pressure gauge
 - (2) Dual Steering: Shall have dual operator controls providing right and left hand steering with visibility to both gutter brooms.
 - (3) Air Conditioning: Factory installed air conditioning. Shall include tinted glass all around.
 - (4) Windshield Wipers: Dual electric intermittent windshield wipers with washers.
 - (5) Suspension Seats: Two (2) individual (right and left) air suspension seats. Shall include right and left seat belts.
 - (6) Radio: Factory installed electronic AM/FM radio.
 - (7) Mirrors: Shall have right and left Heated West Coast Sr. type outside rear view mirrors installed in such manner to insure full visibility from either side of sweeper. In addition, fender mounted parabolic mirrors shall be provided to help observe the brooms while sweeping.
 - (8) Horn: Air horn or dual note electric horn.
 - T. Hood: Tilting fiberglass or composite hood and fenders.
 - U. Lights: Shall be equipped with dual beam headlights, parking lights, two combination tail, stop and directional lights, clearance lights, spotlights for gutter brooms, rear floodlight, directional turn signal with column mounted switch and hazard flasher switch, automatic backup light and any other lights required by ICC.
 - V. 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.
4. Color: Sweeper unit and truck cab, hood, fenders and wheels shall be painted Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal. Front bumper, grill, and mirrors shall be as regularly furnished by truck manufacturer.

5. Warranty:

- A. Cab and chassis shall have truck manufacturer's regular warranty. Warranty Data shall be furnished with each unit. The Warranty Data shall contain all necessary information such as motor and/or serial numbers and shall be signed by the selling dealer at the time vehicle is delivered to the Highway Department.
- B. The sweeper and other incidental equipment purchased under this specification shall be warranted against defective material and workmanship for a minimum period of twelve (12) months (365 Days) from date unit is placed in operation by AHTD. In addition, manufacturer's standard warranty period on certain machine components that exceeds the 12 months warranty shall remain in effect.
 - (1) Warranty shall 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.
 - (3) It will be the responsibility of the successful bidder to insure that repairs are completed in a timely manner.
- C. 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.
- D. 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.