

**Office of Finance
Division of Procurement
MONTGOMERY COUNTY PUBLIC SCHOOLS
Rockville, Maryland**

Invitation for Bid #7143.6, Trash Compactor Truck

GENERAL CONDITIONS AND SPECIFICATIONS

I. GENERAL CONDITIONS

A. Intent

The specifications contained herein are intended to cover the furnishing and delivery of new trash compactor truck as described. Delivery is to be made to Montgomery County Public Schools (MCPS) locations as listed on the purchase order. All prices quoted shall be less Federal Excise Tax. Only new models shall be considered at this time. Demonstration units shall not be considered.

B. Delivery

Delivery will be required within 90 days after receipt by the successful bidder of a purchase order issued and signed by the director of the Division of Procurement.

C. Awards

It is the intention to award this contract to the bidder submitting the most favorable prices with consideration being given to any previous performance for the Board of Education as to quality of service and acceptable merchandise, and with regard to the bidder's ability to perform should it be awarded the contract. However, the Board reserves the right to make awards according to the best interests of the Board of Education of Montgomery County, Maryland.

D. Contract Term

The term of contract shall be for one year as stipulated on the Invitation for Bid. However, the contract may not begin until one day after approval by the Board of Education and will conclude as stated under the contract term. MCPS reserves the right to extend this contract at existing prices, terms and conditions for up to three additional one year terms. Written notice indicating MCPS' intention to pursue the extension of the contract will be issued to the successful bidder 90 days prior to the expiration of the original contract. The bidder will have ten days from the date of notification to return the notice acknowledging its intent to accept or reject the extension. Once the response is evaluated, MCPS staff may make a recommendation to the Board of Education to extend the contract or decide to rebid. If the contract is extended by the Board of Education a contract amendment will be issued.

E. Descriptive Literature

When bidding products other than the brand and model specified, bidders are required to furnish with their bid response literature properly bound and labeled showing full illustrations and detailed specifications on items bid. The literature shall be clearly marked with the bid number, item number and company name.

F. Brand Names

Reference to manufacturer's make, model and model number in the attached specification is offered as a point of reference in order for bidders to consider style, size, weight, and similar characteristics. The use of such make, model and model number should not be interpreted as the exclusive brand desired.

In the brand column state the year, make, model and model number, on each item being offered, even if bidding as specified. If a year, make, model and model number is not shown your bid may not be considered.

If an item specification shows a make, model and model number that has been discontinued, the bidder shall so state and indicate the current make, model and model number.

G. Interpretation of Specifications

The commodity listed is specified to meet our minimum requirements. Therefore, bidders are informed that they must provide the items in conformance to quality standards equal to the brand specified.

H. Deviations

All bids meeting the intent of the invitation will be considered for award. Bidders offering and quoting on substitutions or who are deviating from the terms, conditions, and/or specifications shall list such and explain fully on a separate sheet to be submitted with its bid. The absence of such a sheet shall indicate that the bidder has taken no exception and shall be held responsible for performing in accordance with the terms, conditions and specifications as stated herein.

I. Quotations

Bidders shall bid the latest current model of equipment meeting specifications. The offering of a vehicle on hand that meets most of the stated specifications shall be listed individually as a separate item for consideration, and be included with your bid. Detailed information stating all deviations is required.

This solicitation shall be valid for acceptance during a period of no less than 90 days from date of opening. Once the contract is approved, terms and conditions of the solicitation shall prevail throughout the contract period.

J. Quantities

MCPS shall not be obligated to purchase any specific quantity. The quantity in this request is subject to change and purchase is dependent upon the requirements of MCPS and on budgetary limitations.

K. Warranty

The supplier warrants the items delivered to be of the highest quality, complying with specifications and free from all defects whatsoever in workmanship and materials. The supplier agrees that any replacements and/or adjustments made necessary because of such defects will be made promptly without any cost to MCPS and to the satisfaction of MCPS.

Bidders shall provide a minimum three-year bumper to bumper parts and labor. Proposals shall include warranty costs for the two years. A copy of the warranty proposal shall be included with the bid submission. Effective date of the warranty shall be the day MCPS places the vehicle in service.

Cost for an additional two year warranty should be listed separately in item specifications. Do not include the additional two year warranty cost in the bid price.

L. Items Required Upon Delivery

The successful bidder shall provide the following upon delivery of each vehicle: four sets of keys; one copy of Operator's Manual; One copy of Shop and/or Service Manual; One copy of Parts Manual in printed or CD; Certificate of Origin with the required sections of Application for a Certificate of Title completed; and Certificate of Warranty.

M. Inspection and Acceptance

Vehicle shall comply with all applicable Federal motor vehicle safety standards. Vehicles are to be inspected to assure that the vehicles and equipment meet the specifications with a minimum possibility of malfunctioning. Vehicle will be inspected for final acceptance at the MCPS delivery location. In the event a vehicle does not pass inspection, the successful bidder shall pick up the vehicle and correct the deficiency to published manufacturer's standards and return for inspection within 15 calendar days from rejection date.

N. Temporary Tags

The vehicle delivered under this contract shall have thirty-day temporary license tags. The beginning date of such tags will commence on the day that the vehicle is delivered to MCPS and has passed inspection and acceptance by MCPS. The successful bidder shall assume the cost of the temporary tags. MCPS will be responsible for providing the license tags after the initial 30 days. The successful bidder shall provide all required documents to permit the registration of the vehicle in MCPS' name.

O. Payment

Payment will not be authorized until delivery has been made and all servicing and adjustments have been accomplished to the complete satisfaction of MCPS.

P. Safety

Vehicles offered shall be equipped with the standard safety package as required by Federal Law for the type of vehicle specified, including safety seat belts for driver and passenger(s). Vehicle shall also include:

- First aid kit, Johnson & Johnson model 8161 or equal
- 10-lb. ABC dry chemical type – mounted in cab
- Triangle kit
- Back-up alarm: horn or buzzer type

Q. Customer References

Bidders are required to provide three references. The references shall have company name, contact person, address and phone number of three current customers for which contracts for similar size and products have been provided. If the referenced information is not accurate and MCPS cannot contact the person(s) named then your bid may not be considered.

<u>Company Name & Address</u>	<u>Contact Person</u>	<u>Phone Number</u>	<u>Contract Number</u>
1. _____			
Email Address: _____			
2. _____			
Email Address: _____			
3. _____			
Email Address: _____			

R. Award Criteria

1. Conformance to specifications
2. Ability to perform
3. Price
4. Past performance
5. Delivery Timeline

S. eMaryland Marketplace Advantage

Maryland law requires local and state agencies to post solicitations on eMaryland Marketplace Advantage. Registration with eMaryland Marketplace Advantage is free. It is recommended that any interested supplier register at <https://emma.maryland.gov>, regardless of the award outcome for this procurement as it is a valuable resource for upcoming bid notifications for municipalities throughout Maryland.

T. Multi-Agency Participation

MCPS reserves the right to extend the terms and conditions of this solicitation to any and all other agencies within the state of Maryland as well as any other federal, state, municipal, county, or local governmental agency under the jurisdiction of the United States and its territories. This shall include but not be limited to private schools, parochial schools, non-public schools such as charter schools, special districts, intermediate units, non-profit agencies providing services on behalf of government, and/or state, community and/or private colleges/universities that required these goods, commodities and/or services. Use of this solicitation by other agencies may be dependent on special local/state requirements attached to and made a part of the solicitation at time of contracting. The supplier/contractor agrees to notify the issuing agency of those entities that wish to use any contract resulting from this bid and will also provide usage information, which may be requested. A copy of the contract pricing and the bid requirements incorporated in this contract will be supplied to requesting agencies. Each participating jurisdiction or agency shall enter into its own contract with the Award Bidder(s) and this contract shall be binding only upon the principals signing such an agreement. Invoices shall be submitted “directly” to the ordering jurisdiction for each unit purchased. Disputes over the execution of any contract shall be the responsibility of the participating jurisdiction or agency that entered into that contract. Disputes must be resolved solely between the participating agency and the Award Bidder.

MCPS assumes no authority, liability, or obligation on behalf of any other public or non-public entity that may use any contract resulting from this bid MCPS pricing is based on the specifications provided in this solicitation. A negative reply will not adversely affect consideration of your bid/proposal.

U. Addenda/Errata

Changes and addenda to a solicitation may occur prior to the solicitation opening date and time. It is the sole responsibility of the bidder to check the “Event Calendar” on the MCPS website <http://www.montgomeryschoolsmd.org/departments/procurement/> and contact Rebecca Williams, Buyer in the Division of Procurement at Rebecca_V_Williams@mcpsmd.org or Procurement@mcpsmd.org, to verify whether addenda/errata have been issued. Failure to provide the signed acknowledgement of the addenda/errata may result in the bid being deemed non-responsive.

V. Inquiries

Inquiries regarding this solicitation must be submitted in writing, to Rebecca Williams, Buyer, Montgomery County Public Schools, Division of Procurement, 45 West Gude Drive, Suite 3100,

Rockville, Maryland 20850, Rebecca_V_Williams@mcpsmd.org, and Procurement@mcpsmd.org. Questions must be received no later than four business days prior to bid opening in order for the bidder to receive a reply prior to submitting its bid. The Board of Education will not be responsible for any oral or telephone explanation or interpretation. Bidder contact with any other MCPS employee regarding this solicitation until the contract is awarded by the Board of Education will be considered by MCPS as an attempt to obtain an unfair advantage and result in non-consideration of its bid. The MCPS Procurement website address is: <http://www.montgomeryschoolsmd.org/departments/procurement/>

W. Contractor Obligation

Contractors' Obligation Regarding Criminal Records of Individuals Assigned to Work in MCPS Facilities (Not Applicable)

Beginning July 1, 2015, all MCPS contracts must include the following provisions:

I. Prohibition against assigning registered sex offenders and individuals convicted of sexual offenses, child sexual abuse, and other crimes of violence to MCPS contracts:

Maryland Law requires that any person who enters into a contract with a county board of education "may not knowingly employ an individual to work at a school" if the individual is a registered sex offender. Under § 11-722 of the Criminal Procedure Article of the Maryland Code, an employer who violates this requirement is guilty of a misdemeanor and, if convicted, may be subject to up to five years imprisonment and/or a \$5000 fine.

Effective July 1, 2015, amendments to § 6-113 of the Education Article of the Maryland Code further require that a contractor or subcontractor for a local school system may not knowingly assign an employee to work on school premises with direct, unsupervised, and uncontrolled access to children, if the employee has been convicted of, or pled guilty or nolo contendere to, a crime involving:

- a) A sexual offense in the third or fourth degree under § 3-307 or § 3-308 of the Criminal Law Article of the Maryland Code or an offense under the laws of another state that would constitute an offense under § 3-307 or § 3-308 of the Criminal Law Article if committed in Maryland;
- b) Child sexual abuse under § 3-602 of the Criminal Law Article, or an offense under the laws of another state that would constitute child sexual abuse under § 3-602 of the Criminal Law Article if committed in Maryland; or
- c) A crime of violence as defined in § 14-101 of the Criminal Law Article, or an offense under the laws of another state that would be a violation of § 14-101 of the Criminal Law Article if committed in Maryland, including: (1) abduction; (2) arson in the first degree; (3) kidnapping; (4) manslaughter, except involuntary manslaughter; (5) mayhem; (6) maiming; (7) murder; (8) rape; (9) robbery; (10) carjacking; (11) armed carjacking; (12) sexual offense in the first degree; (13) sexual offense in the second degree; (14) use of a handgun in the commission of a felony or other crime of violence; (15) child abuse in the first degree; (16) sexual abuse of a minor; (17) an attempt to commit any of the crimes described in items (1) through (16) of this list; (18) continuing course of conduct with a child under § 3-315 of the Criminal Law Article; (19) assault in the first degree; (20) assault with intent to murder; (21) assault with intent to rape; (22)

assault with intent to rob; (23) assault with intent to commit a sexual offense in the first degree; and (24) assault with intent to commit a sexual offense in the second degree.

Each contractor is required to submit, following award of a contract, documentation confirming that its direct employees and those of any subcontractors and/or independent contractors assigned to perform work in a MCPS school facility under the contract meet this obligation. Additionally, the contractor must confirm that it continues to meet this obligation on an annual basis and/or when there are changes in the work-force that the contractor and/or its subcontractors use to perform the work required by the contract.

Violation of this provision is a material breach of contract for which MCPS may take appropriate action up to and including termination of the contract.

II. Required criminal background check process for certain individuals in the contractor's workforce:

Under recent amendments to § 5-551 of the Family Law Article of the Maryland Code, each contractor and subcontractor shall require that any individuals in its work-force must undergo a criminal background check, including fingerprinting, if the individuals will work in a MCPS school facility in circumstances where they have direct, unsupervised, and uncontrolled access to children. The term "work-force" in this and the preceding section refers to all of the contractor's direct employees, subcontractors and their employees, and/or independent contractors and their employees that the contractor uses to perform the work required by the contract.

Fingerprinting for the criminal background check may be performed by the MCPS Office of Human Resources and Development, 45 W. Gude Drive, Rockville, MD 20850, or through another service approved by MCPS. Individuals fingerprinted by MCPS will be required to provide written consent, and MCPS will maintain copies of all records for criminal background checks performed by MCPS. If the contractor uses another service approved by MCPS, the results of the criminal background check must be provided to MCPS for record keeping. A list of MCPS approved fingerprinting agencies can be found on the Division of Procurement website at

<http://www.montgomeryschoolsmd.org/departments/procurement>.

The contractor must take appropriate steps to promptly follow up on information identified in the criminal background check related to the sexual offenses, child sexual abuse offenses, and crimes of violence enumerated above, as well as any information regarding offenses involving distribution of drugs or other controlled substances, or any other criminal information identified by MCPS as warranting further explanation insofar as it may significantly affect the safety and security of MCPS students. If, after following up, the contractor believes that the individual is qualified and should be assigned to work (or continue to work) in a MCPS school facility, then the contractor will provide a written summary to MCPS justifying its recommendation. MCPS will rely on the contractor's summary to determine whether to accept the contractor's recommendation, and the contractor will be responsible for any consequences of a material misrepresentation in its written summary.

Once the contract is awarded, the contractor is responsible for implementing the background check process. An individual in the contractor's work-force may not begin work in a MCPS school facility on an assignment where the individual will have direct, unsupervised, and

uncontrolled access to children, until: (a) the background check results for that individual have been received by MCPS; (b) the contractor certifies to MCPS that the individual has received training and/or reviewed informational materials, as appropriate, regarding recognizing, reporting, and preventing child abuse and neglect, consistent with the content provided in training for MCPS employees; and (c) the individual obtains a MCPS identification badge. The badge will be issued by the MCPS Department of Safety and Security, 850 Hungerford Drive, Room 131, Rockville, MD 20850. Appointments are made by calling 301-279-3066. The contractor will be required to return all badges at the conclusion of the contract.

The criminal background check and badging process will be at the contractor's expense.

Violation of this provision is a material breach of contract for which MCPS may take appropriate action up to and including termination of the contract.

II. DETAILED SPECIFICATIONS

A. Item #39212, Truck, Trash Compactor with Conventional Chassis Cab and Cubic Yard Rear Loading Body

As Kenworth, T300 Series Conventional,

Vehicle shall conform to all Federal and State laws and meet MCPS minimum specifications below.

Logos: No dealer identification or logos to be installed on vehicles or equipment.

Conventional Chassis Cab Specifications:

- a. Engine:
 - (1) Paccar Diesel, 270 HP @ 2010 RPM, 800 ft./lb. @ 1300 RPM
 - (2) Electronic engine warning protection system
 - (3) Turbo exhaust brake
 - (4) Paccar 12v electrical system
 - (5) Fuel line primer pump
 - (6) 2010 EPA emission with low Ash certification
 - (7) 1000 sq. in. radiator, antifreeze to -34 degrees F
 - (8) Spin on fuel filter
 - (9) Oil cooler
- b. GVW Rating: 38,000 lbs.
- c. CA Dimension: 126 to 138 inches
- d. Front Axle:
 - (1) Dana Spicer E-12021 Front Axle Rated 12k
 - (2) 12,000 lbs. Taperleaf front suspension
 - (3) Maintenance free rubber bushings
 - (4) Front shock absorbers

- e. Rear Axle:
 - (1) 26,000 lbs. Capacity
 - (2) 5.25 axle ratio
 - (3) Wheel differential lock
 - (4) 26,000 lb. Variable rate multi-leaf spring rear suspension with leaf spring helper.
 - (5) Electronic traction control

- f. Brake System:
 - (1) Full air brakes
 - (2) 18.7 CFM compressor
 - (3) Air dryer with heater (BW AD9)
 - (4) 16.5 x 5 front, 16.5 x 7 rear
 - (5) Dust covers on all wheels view type
 - (6) Pull cable on wet tank, petcock drain valves on all other tanks

- g. Electrical Systems:
 - (1) 12 volt, negative ground
 - (2) 130 amp alternator, Brushless
 - (3) Three 750 CCA stud batteries
 - (4) Frame ground return for battery cables

- h. Gauges:
 - (1) Tachometer
 - (2) Oil pressure
 - (3) Water temperature
 - (4) Volts
 - (5) Hour meter
 - (6) Air cleaner restriction
 - (7) Air pressure with light and buzzer
 - (8) Transmission temperature
 - (9) Odometer/speedometer
 - (10) Fuel

- i. Frame:
 - (1) 10-3/4 X 3-1/2 X 3/8
 - (2) Front tow hooks, frame mounted

- j. Fuel Tank:
 - (1) One 56 gallon capacity, L/H

 - (2) Aluminum tank, with screw type filler cap
 - (3) 9 Gallon DEF tank

- k. Steering:
 - (1) Full time power steering
 - (2) Power steering pump with 2 qt. See through reservoir

- l. Transmission:
 - (1) Allison 3500 RDS (automatic)
 - (2) 6 speed, push button, water to oil transmission cooler

- (3) Hot shift power take off
- (4) Back up alarm automatically activated in reverse

m. Wheels and Tires:

- (1) Steel Disc, hub piloted, painted white, 22.5 x 8.25 10,000lb Rating
- (2) 12R22.5 16 ply Goodyear G661 HSA front tires H-Rated
- (3) 12R22.5 16 ply Goodyear G182 RSD All terrain rear tires H-Rated

n. Bumper:

Aerodynamic Chrome Bumper

o. Cab:

- (1) Air suspension hi-back driver's seat
- (2) 2 man passenger seat, mid-back with built-in tool box
- (3) Fresh air heater/defroster A/C
- (4) Electric windshield wipers with intermittent feature
- (5) Dual sun visors
- (6) AM/FM radio with antenna
- (7) Dome light
- (8) Fiberglass tilt hood with fixed grille
- (9) Roof mounted dual air horns, electric horn
- (10) Right and left arm rest
- (11) Cigarette lighter with Aux 12vdc outlet
- (12) Tinted windshield, door glass, and wing windows
- (13) 5 lb. Fire extinguisher, triangle kit
- (14) Single rectangular halogen headlights
- (15) Large aerodynamic marker lights
- (16) Dual heated mirrors
- (17) 8" convex mirrors
- (18) Self canceling turn signals

p. Color:

Cab exterior, White, Cab Interior: Gray, Body: White

q. Factory Manuals:

- (1) One set of shop repair manuals
- (2) One set of parts manuals
- (3) One set of body parts and service manuals
- (4) 4 sets of keys

B. Cubic Yard Rear Loading Body

The following are the minimum requirements for a refuse collection body of the rear loading design. The capacity of the refuse body shall be 20 cubic yards, exclusive of the tailgate. All bidders shall attach a statement that the unit offered meets exactly, or exceeds, the specifications or list any exceptions fully and accurately.

The successful bidder shall supply features, which are regularly furnished as standard with the unit. The body shall conform in strength, quality of material and workmanship to that provided

by the best manufacturing and engineering practices of the industry. The equipment shall be new and unused, and shall be completely assembled, painted and ready for operation.

As Leach Alpha Commercial Package

Bidders shall mark an “X” in the appropriate column as to whether the vehicle they are bidding complies or is an exception to each of the following specifications. If an exception is taken, bidder shall explain the exception and use a separate page if necessary.

GENERAL

<u>Comply</u>	<u>Exception</u>	
_____	_____	1. Refuse body to be a minimum 20 cubic Yards Capacity, exclusive of the hopper.
_____	_____	2. Packer body capable of packing 850 pounds per cubic yard based on average household refuse.
_____	_____	3. Packer body must meet all applicable ANSI Z-245.1 safety standards.
_____	_____	4. Heavy-Duty rear backup camera system with a minimum of a 7 inch color monitor and weatherproof camera with minimum of 120 angle of visibility

BODY CONSTRUCTION

<u>Comply</u>	<u>Exception</u>	
_____	_____	1. The roof and side sheets are to be one piece, 11 ga.80,000-PSI minimum yield strength steel throughout with no seams.
_____	_____	2. Roof and sides are to be joined together by a one-piece formed corner, ¼” 50,000 PSI minimum yield strength steel.
_____	_____	3. Body sides and roof must be curved design.
_____	_____	4. Body must incorporate a longitudinal center floor-trough running the entire body length. The floor trough is to be constructed of a minimum 5/16”, 50,000-PSI yield strength steel. Flat floors not utilizing a floor-trough will not be considered.
_____	_____	5. The floor sheets shall have a thickness of ¼” and be made out of 50,000-PSI minimum yield strength steel. The floor sheets are to have a formed flange, minimum 3” tall, that ties into side sheet.

- 6. The floor support braces to be constructed of ½”x6” steel bar 36,000-PSI yield strength, and must run from the center floor trough outward.
- 7. A steel, side access door located at the left front corner of the body, at floor level, is to be provided. Opening is to be a min. 30”x32.5” Door to incorporate latch and locking mechanisms.

BODY DIMENSIONS

Comply **Exception**

- 1. The inside height from bottom of floor-trough to center of roof sheet is to be no less than 90-7/8”.
- 2. The overall height of body above the chassis frame is not to exceed 93-1/2” (no mounting sills).
- 3. The maximum inside width is to be no less than 90”.
- 4. The outside width is to be no more than 96”.

EJECTION SYSTEM

Comply **Exception**

- 1. Unloading by full ejection method only. Dumping or rising of the body is not acceptable.
- 2. The ejection cylinder shall be telescopic consisting of multiple stages. A variable (adjustable) externally piloted resistance valve, which controls packing density and cylinder retraction, must be incorporated in the ejector panel/tailgate lift, two spool valve assembly. No portion of the ejection forces shall be directed toward the body floor (downward).
- 3. The telescopic ejection system hydraulic cylinder must angle upward from its front mounting location to avoid forces being directed into the floor. Telescopic ejection cylinders mounted downward or horizontally are not acceptable. The case end of the cylinder must be attached to the ejection panel with full style bearing housings for easy removal and be secured approximately half way up the panel to counter the tipping forces applied to the ejection panel by the tailgate packing mechanism.

4. The ejector panel face sheet is to be a minimum 3/16” thick, 50,000-PSI steel. The panel must withstand the packing mechanism forces and the ejection of highly compacted refuse.

5. The ejector panel is to travel the full length of the body and be equal in area to the cross section area of the body.

6. The ejector panel must be designed to act as a bulkhead against which refuse is compressed and incorporate a “diamond-shaped deflector structure” which enhances compaction by directing material entering from the packing mechanism toward the upper corners of the body.

7. The ejector panel shall travel on four 10-1/2” long poly shoes on the lower panel guide and four 9-7/8” long poly shoes on the upper panel guide. These guide shoes must be replaceable without removing the ejection panel from body.

8. At no time may any portion of the ejector panel, when in its rearmost position, extend beyond the plane of the rear body opening.

TAILGATE

Comply

Exception

1. The tailgate is to be top hinged to the body at the roofline utilizing cast steel hinges. It is to be raised for load ejection by two, 4” bore, single acting “RAM style” cylinders mounted on the outside of the tailgate. Cylinders shall contain a restricting mechanism to prevent rapid descent of the tailgate and be manufactured with chrome-plated rods for added durability.

2. The tailgate is held in the closed position by two double lead thread screw clamps, one on each side of the tailgate. Clamps are to be equipped with a fast spin handle.

3. Two tailgate props (one each side) externally mounted shall be furnished. Tailgate to be open in the propped position a minimum of 24”.

4. An extruded rubber gasket is to be affixed to the tailgate to provide a watertight seal between the body and tailgate. Sealing must be effective up to a minimum of 40”.

5. Bolt-on riding steps are to be provided on each side of the tailgate, and 1" min. diameter grab handles will be located in a convenient place for rider safety. The steps must be made of grip-strut open grate material and allow for a 4" vertical adjustment. Step must comply with ANSI standards.

6. The tailgate shall be equipped with a "tailgate ajar" switch with an indicator light in the cab. The purpose of this light is to indicate to the driver that the tailgate is not completely closed. The "tailgate ajar" switch with light must comply with ANSI safety standards.

7. The tailgate-loading sill must be 5" below the chassis frame after mounting.

HOPPER

Comply

Exception

1. The floor of the hopper is to be 1/4" 100,000-PSI minimum yield strength steel.

2. The hopper sides to be 3/16" 80,000-PSI minimum yield strength steel.

3. Inside hopper width is to be a minimum of 84".

4. The hopper opening is to be a minimum of 84" wide x 59" high.

5. The hopper capacity is to be a minimum of 3.0 cubic yards volumetric.

6. The total cycle time is not to exceed 29 seconds.

7. Reload time is not to exceed 15 seconds.

PACKING MECHANISM

Comply

Exception

1. The packer and carrier faceplate is to be a minimum of 3/16" 50,000-PSI yield strength steel.

- 2. The packing plate cylinders are to be single stage, 4.5” bore, double acting.
- 3. The carrier plate cylinders are to be single stage; 5.5” bore, double acting.
- 4. The packing mechanism is to retain the compacted material in the body and provide protection for the operating cylinders.

PACKING MECHANISM

Comply **Exception**

- 1. The packer and carrier faceplate is to be a minimum of 3/16” 50,000-PSI yield strength steel.
- 2. The packing plate cylinders are to be single stage; 4.5” bore, double acting.
- 3. The carrier plate cylinders are to be single stage; 5.5” bore, double acting.
- 4. The packing mechanism is to retain the compacted material in the body and provide protection for the operating cylinders.
- 5. The upper carrier plate is to utilize rollers vs. slides for easy movement. Rollers are to be 5” diameter made from forged 4150 steel induction hardened to 57-60 “Rockwell C” and have grease fittings accessible from external roller access openings.
- 6. When the packing mechanism reaches the interrupt position, the packer plate must stop approximately 11” above the loading sill to avoid a pinching action. The packing control handles must then be reactivated to complete the cycle. The packing control handles must be able to stop or reverse the packing mechanism at any position in the cycle.
- 7. The packing plate is to compact material into the body against the ejector panel and not into the forward portion of the hopper itself. Pre-crushing of material in the hopper is not acceptable.
- 8. The packing plate shall be protected from overload by an independent packer circuit relief valve located at the operating valve.

HYDRAULIC SYSTEM

Comply

Exception

1. The hydraulic pump is to be a spur gear type with wear compensating side plates using hydraulic pressure to keep them properly tensioned and positioned to maintain a consistent fluid flow rate. Pump to be driven through a transmission mounted PTO.

2. The capacity of the pump must not be rated at less than 38 gallons per minute at 1200 rpm.

3. A factory sealed relief valve is to be set at a maximum of 2150 PSI.

4. There shall be an internally mounted 141-micron (100 mesh) suction strainer with built-in by-pass.

5. A 10 micron filter with a visual indicator to show when the filter is in a bypass mode must be supplied.

6. The hydraulic oil reservoir to be located on the curbside, mounted on the body floor, and have an oil sight gauge located for easy viewing.

7. The hydraulic oil reservoir to have a combination filler/breather cap with 10-micron air filtration.

8. The hydraulic oil reservoir shall supply adequate capacity to run all functions on the vehicle at a 15% grade.

9. The hydraulic system shall contain the following cylinders:

a. All cylinders to operate without direct contact with collected refuse.

b. All cylinder rods must be chrome plated to increase durability.

c. Two-packer plate cylinders 4.5” bore, doubleacting, with a stroke of 32.5”. Two carrier plate cylinders 5.5”. The cylinder rods must be induction hardened to a minimum 55 Rockwell “c” and chrome plated.

d. Two tailgate lift cylinders-4” bore, single acting “RAM style”, with a stroke of 32-11/16”. Rods to be chrome plated.

e. Ejection Cylinder: 20 yard=5”,4” Bore, 80” stroke

10. Hydraulic hose construction to be SAE approved with a burst pressure at least four times working pressure. All hydraulic connections to have "O" -ring face seals. No "JIC" or pipefittings in high-pressure or return lines.

11. All hydraulic tubing to be zinc and yellow chromate plated. Must pass 100-hour salt spray.

12. A manually operated control valve assembly utilizing direct mounted handles for ejection and tailgate lift is to be provided. This valve is to be located at the left front corner of the body. The valve is to incorporate the main system relief valve, which is set and sealed at a maximum pressure of 2150 PSI.

13. At no time shall control handles be inaccessible due to chassis components or configurations.

14. The packing mechanism-operating valve shall be a two-spool stack style hydraulic valve and incorporate self-contained pressure release detent end cap assemblies.

15. For ease of access, the valve assembly is to be located on the tailgate. The valve location must provide "down access" for adjustments or routine maintenance. A bolt on cover shall protect the valve.

CONTROLS

Comply

Exception

1. The manually operated controls for the packing mechanism are to be located curbside at the rear of the

tailgate. An automatic throttle advance must be provided. The dual lever controls must have the capability of stopping, starting, and reversing the packing mechanism. To avoid possible damage from rubbish, the dual lever control rods must be located outside the hopper.

2. A push-button switch that activates a buzzer in the cab is to be provided on both sides of the tailgate to signal the driver.

3. The tailgate lift and ejector controls, complete with a manually operated engine speed-up switch, are to be located at the left front corner of the body.

4. PTO/pump controls are to be mounted inside the cab.

LIGHTING AND ELECTRICAL

<u>Comply</u>	<u>Exception</u>	
_____	_____	1. Body lighting must comply with FMVSS#108 regulations.
_____	_____	2. For maximum visibility, a light panel above the hopper must also be provided, consisting of two 4” red stop/tail lights, two 4” amber turn signal lights, three individual I.D. lights, and one license plate bracket with light. All lights to be grommet mounted except utility and license plate lights.
_____	_____	3. Wiring to be enclosed in a pre-assembled sealed harness to meet SAE spec, 122223-1-2-3.
_____	_____	4. All electrical junction locations are to be within the body structure and must be weatherproof. Meeting SAE spec. 122202. All junction locations are to be located so no overhead access is required.
_____	_____	5. All wiring to be color-coded and labeled.
_____	_____	6. A back-up alarm conforming to current ANSI standards must be provided. The alarm must also sound when the tailgate is not closed.

PAINTING

<u>Comply</u>	<u>Exception</u>	
_____	_____	1. All metal burrs, weld residue and rough areas are to be ground off to a clean, smooth surface.
_____	_____	2. All body surfaces to be thoroughly washed with an iron-phosphate-based steam cleaning solution.
_____	_____	3. A coat of two-part epoxy, rust-inhibiting primer is to be applied to all metal surfaces.
_____	_____	4. A high gloss two part polyurethane topcoat is to be applied. Color is to be white.
_____	_____	5. Top finish coat is to be baked on.

MOUNTING

Comply **Exception**

1. Mounting is to be done at the factory of the body manufacturer.

2. Factory mounting to incorporate rear mounts, spring supported front mounts, with integral lateral restraints.

Options: To be furnished and included in price:

COMMERCIAL PACKAGE

Comply **Exception**

1. Tailgate is to have ¼” 100,000-PSI yield steel hopper floor and a ¼” tailgate lower side sheets.

2. Commercial units are to have heavy-duty packer and carrier plate, ramp liners and a heavy-duty ejector panel 3/8” vertical towers.

LIGHTING

Comply **Exception**

1. LED lighting

2. Hopper light

3. Pair oval LED alternating strobes, rear