



Purchasing and Contracts Branch
2201 East Market Street
Long Beach, California 90805-5556

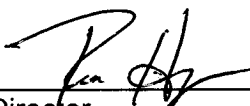
Request for Bids (RFB)

02-1718

Front Loader Trash Truck

(Price Agreement)

RELEASED ON: 6/29/2017



Director

6/22/17

Date



SECTION A - INSTRUCTIONS

1. INTRODUCTION

The Long Beach Unified School District (District) is seeking sealed bids from qualified vendors (Bidder), to provide front loader trash trucks. The intent of this RFB process is to select a Bidder and establish a one (1) year contract with an option to extend for up to two (2) additional one year periods based on satisfactory service/performance.

a) District Contact

The District contact (Contact) for this RFB is the sole point of contact for this procurement. All communication shall be in writing and submitted to the Contact as designated below. Bidders are not permitted to communicate with other District staff or officials about this RFB, except during pre-bid meetings and/or interviews, unless otherwise directed by the Contact. Direct written questions and/or correspondence related to this RFB to:

Contact: Toni Sampo, Purchasing Agent

E-Mail: Tsampo@lbschools.net

Bidders interested in participating in this RFB should immediately provide Contact with a telephone number and an e-mail address for dissemination of addenda and/or supplemental information, as applicable. Failure to do so may result in late notifications and/or incomplete bids.

b) Deadline for Submitting Questions

Any questions regarding this RFB must be submitted, via email, to the Contact referenced above, no later than 7/13/2017 at noon. All submittals must reference the RFB number and title. Questions submitted by the deadline will receive an email response from the District no later than 7/20/2017.

c) Quantities

Quantities for each item is the District's best estimate of anticipated annual purchases throughout the bid term. Bidders are advised that actual orders may vary from stated quantities.

2. FORMAT AND SUBMISSION

Bids must be submitted on the provided bid forms in conformance with this RFB. Bids must be submitted in a sealed envelope with the bid number, bidder's name and address appearing on the face thereof. Bidders must complete and return the following:

- Company Information Form
- Piggyback Clause Form
- Request for Taxpayer Identification Number and Certification Form (Form W-9)
- Bid Form
- Addenda in chronological order (if applicable)
- If bidding other than items specified herein, provide Manufacturer's Specification sheets
- Documentation verifying CARB certification
- Documentation to show compliance with Steering Acumen requirements
- Documentation to show compliance with Turning Radius requirements
- All Warranty information



Additionally, bids must be submitted to and addressed as follows:

**LBUSD Purchasing & Contracts Branch
Attn: Toni Sampo, Purchasing Agent
RFB 02-1718 - Front Loader Trash Truck
2201 E. Market Street
Long Beach, California 90805**

The deadline for submitting a sealed bid is **7/27/2017 at 11:00 AM**. Any bid received after this time will be returned unopened (Government Code Section 53068). It is the Bidder's responsibility to ensure that their bid arrives before the deadline. Postmarks will not be accepted in lieu of actual receipt. **Faxed or e-mailed bids will not be accepted.**

3. CONTRACT TERM

The initial contract period will be August 2017 through July 2018. The contract may be extended for up to two (2) additional one (1) year periods upon mutual consent of both parties. Term of Contract shall not exceed three (3) years. The District requires that all pricing contained in the bid remain firm for the initial term. The District will consider fully documented requests for price increases, to be submitted at least thirty (30) days prior to contract renewal. The District may, at its sole option, accept any changes or cancel from the contract those items concerned.

4. DELIVERY TERMS

All items must be delivered, ready for use, F.O.B. Long Beach Unified School District Transportation Branch, 2700 Pine Avenue, Long Beach, CA 90806, or location as specified in purchase order. Additionally, Bidder shall:

- Include a detailed and accurate packing slip with each delivery. Purchase order number must appear on all packages, packing slips, and invoices.

5. SPECIFICATIONS: See Attachment A

6. EQUIVALENT BRANDS

The brands described and specified in the bid have been tested extensively and have been found satisfactory for District requirements. Any other brands offered as "equal" shall be accepted only after testing and have proven their capabilities to meet District needs.

7. AWARD

a) Method

After the public bid opening, where the apparent low bid is identified, bids will be reviewed to ascertain that they are in compliance with the RFB requirements. Bidders may be deemed non-responsive for failure to comply with the requirements set forth herein. Evaluation of responsive Bidders will be based on, but not limited to such factors as ability to deliver products in a timely manner, appropriateness and quality of materials, length and scope of the warranties and pricing.

In the event there are two or more identical lowest bids, the District will award to the local vendor (if any). If there is no local vendor, award will be determined in compliance with Public Contract Code 20117.



b) Award Notification

A Notification of Intent to Award will be issued to all participating Bidders identifying the lowest responsible/responsive Bidder.

Bids are subject to acceptance within sixty (60) days of closing date, and all bids shall remain irrevocably in effect for sixty (60) days after the bid closing date.

c) Commencement of Services

A written purchase order results in a binding contract without further action by either party. A Purchase Order will be issued once:

- Board authority is granted
- Insurance requirements have been met, if applicable
- Verification of current vendor W-9 Tax Form

d) Reservations

The District reserves the right to:

- Reject any and all bids, or any part of any bid
- Accept any part of the bids, at prices quoted, to the best advantage of the District, unless Bidder by indicating on bid positively limits his bid to “all or none”
- Waive any informality or minor irregularity in any bid

8. CLARIFICATION AND INTERPRETATION

The words “must” or “will” or “shall” in this RFB indicate mandatory requirements. Taking exception to any mandatory requirement may be grounds for rejection of the bid.

The District wants to avoid any misunderstanding where it is assumed that a feature is included in the bid and turns out to be an optional, extra cost feature. Any features that are optional, extra cost items shall be clearly referenced as such in all correspondence, including RFB questions and the written Bid Form.



SECTION B - GENERAL TERMS AND CONDITIONS

1. The detailed requirements of the Bid Proposal specifications shall supersede any conflicting provisions of these General Conditions.
2. Hereinafter the word "District" means the Board of Education or its authorized representative. The general specifications are for reference only. The District reserves the right to waive any minor variations from specifications and to evaluate the bid based on the determination of what is in the District's best interest and the ability of the items to perform the task for which they are being purchased. The District will make its determination based on specifications set forth in this bid and their applicability to the end-user's needs.
3. **ADDENDA:** The District reserves the right to modify and issue addenda to this RFB. A signed copy of all addenda shall be submitted as part of the bid. Failure to include the addenda may result in a non-responsive submittal. Addenda shall become a part of this RFB and any Agreement, which may result from this solicitation.
4. **AFFIRMATIVE ACTION:** The Long Beach Unified School District is an Affirmative Action/Equal Employment Opportunity Employer and in accordance with applicable state and federal law, does not discriminate in any employment practice on the basis of age (40 and over), ancestry, color, marital status, medical condition (cancer related), national origin, political or union affiliation, physical or mental disability, race, religion, sexual orientation or sex. This policy of affording equal employment opportunities to all persons is in keeping with provisions of Title VII and Title IX amendments of the United States Code, which protect persons against discrimination.
5. **ASSIGNMENT:** No contract awarded under this proposal shall be assigned except with the District's written approval.
6. **ASSIGNMENT BY BIDDER:** Assignment by Bidder to purchasing body rights under Federal law arising from purchase pursuant to bid: In submitting a bid to public purchasing body, the Bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 commencing with Section 16700) or Part 2 of Division 7 of the Business Professions Code, arising from purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the Bidder. The preceding provisions of this section shall be included in full in any specification for the public purchase and shall be included in full in the bid agreement or general provisions incorporated into the bid agreement.
7. **BID PREPARATION AND SUBMISSION:**
 - a. Bids received later than the time and date specified herein will not be considered and will be returned unopened to the Bidder (Government Code Section 53068).
 - b. All prices and other notations must be typewritten or legibly written in ink. Changes or corrections must be initialed in ink by the person signing the bid.
 - c. Bidders shall bid separately on each item, showing unit price and other required information. The unit price shall prevail.
 - d. Bidder shall quote no less than lowest net price, best delivery date, maximum discount terms for prompt payment of at least thirty (30) days, and list manufacturer and model # of the item offered.
 - e. Unless otherwise stated, bid specifications call for equipment and supplies that are new and unused, of current manufacture.
8. **CANCELLATION:** District may, at any time, with or without reason, terminate the Bid Award and compensate Bidder only for goods/services satisfactorily rendered to the date of termination. Written notice by District shall be sufficient to stop further performance of services by Bidder. Notice shall be deemed given when received by the Bidder or no later than three days after the day of mailing, whichever is sooner.
9. **CONTRACT DOCUMENTS:** The complete purchase agreement includes the following documents: The advertisement for bids (when required), the bid and purchase order conditions, the specifications and drawings, the bid of the supplier and its acceptance by the District, the purchase order, performance guarantee, executed agreement, and all amendments thereto. Any of these documents shall be interpreted to include all provisions of the other documents as though fully set out therein.
10. **DEFAULT BY BIDDER:** The District shall hold the Bidder responsible for any damage which may be sustained because of the failure or neglect of the Bidder to comply with any term or condition listed herein or in the purchase order, it being specifically provided and agreed that time shall be of the essence of the contract delivery requirements.

If the Bidder fails or neglects to furnish or deliver any of the materials, supplies or services listed herein at the prices named and at the time and places herein stated or otherwise fails or neglects to comply with the specifications and other terms of the contract, the District may, upon written notice to the Bidder, cancel the contract in its entirety or cancel or rescind any or all items affected by such default, and may, whether or not the contract is canceled in whole or in part, purchase the materials, supplies or services elsewhere without notice to the Bidder. The prices paid by the



District at the time such purchases are made shall be considered the prevailing market prices. Any extra cost incurred by such default may be collected by the District from the Bidder and the surety on the performance bond, if any.

11. **DELIVERY:** No equipment shall be accepted unassembled; all equipment shall be assembled prior to (or within three business days) after delivery; and no charges for transportation, handling, containers, packing, etc., will be allowed unless otherwise specified in the bid. All articles shall be subject to inspection and acceptance or rejection by the District.
12. **FORCE MAJEURE CLAUSE:** The parties to the contract shall be excused from performance there under during the time and to the extent that they are prevented from obtaining, delivering or performing by act of God, fire, strike, loss or shortage of transportation facilities, lockout, or commandeering of materials, products, plants or facilities by the government, when satisfactory evidence thereof is presented to the other party, provided that it is established that the non-performance is not due to the fault or neglect of the party not performing.
13. **PAYMENT:**

Payment will be made only to the firm name written on the bid. All cash discount (prompt payment terms) shall be taken and computed from the date of acceptance of material or the date of receipt of the invoice, whichever is later.
14. **PERMITS AND LICENSES:** Licenses must be legally held in the name as submitted on bid documents. The Bidder and all of his employees or agents shall secure and maintain in force such licenses and permits as are required by law, in connection with the furnishing of materials, articles or services herein listed.
15. **PRICING:** Unit prices shown on the bid shall be the price per unit of sale as stated herein. For any given item, the quantity multiplied by the unit price shall establish the extended price; the unit price shall govern in the bid evaluation and contract administration.
16. **PROMPT PAYMENT TERMS:** Cash discounts shall be considered in determining low bid if discount offered is for (30) day payment period or longer. Cash discounts for less than thirty (30) days shall not be considered in determining low bid.
17. **PROPERTY OF THE DISTRICT:** All bids and materials submitted become the property of the District and may be used by the District in any way it deems appropriate. In addition, bids received will be subject to the California Public Records Act.
18. **SAFETY AND LEGAL REQUIREMENTS:**
 - a. All materials, equipment or supplies referred to in the bid shall be in full compliance with the safety orders and regulations of the Division of Industrial Safety of the State of California, product labeling and regulations of the California Department of Consumer Affairs, and the minimum standards of the O.S.H.A., and all other laws and ordinances applicable thereto.
 - b. All electrical, radio and electronic equipment, materials, supplies and accessories called for in the specifications must bear the seal of approval of the Underwriters Lab., Inc., and/or the Electrical Testing Laboratories of the City of Los Angeles. Where seals of approval are not visibly identifiable, a signed statement of such approval shall be furnished to the District, if so requested.
 - c. Motor-driven or shock-hazard machinery and appliances must have a 3-wire cord (grounded) and 3-prong plug. If the item is "double-insulated" and so certified by U.L., grounding is not necessary.
 - d. When applicable, will be required to submit Material Safety Data sheets (MSDS) for the items awarded.
19. **TRADE-INS & ALTERNATIVE BID:** The District may offer to purchase certain items conditioned on the agreement of the Bidder to purchase designated equipment and remove same from the District, and stating in the bid the amount that may be deducted from the bid price for furnishing the new material, as provided in § 39523 and § 81454 of the Education Code. Condition of the equipment to be turned in is to be "as is". Equipment may be inspected if desired. Bidder may either offer an exchange allowance or an alternative quotation on the same item without trade-in.

Unless otherwise stated, bid specifications call for equipment and supplies that are new and unused, of current manufacture.
20. **WARRANTY:** Period shall begin on the date that the article is placed into service by the user. Each Bidder shall state in writing the warranty on parts and labor as applicable. Additionally, Bidder shall warrant all products to be free from defects in both materials and workmanship, and will guarantee replacement and/or full refund of the purchase price. Warranty period shall begin on the date that the article is placed into service by the user.
21. **WITHDRAWAL OR CHANGE OF BID:** Bids may be withdrawn only by letter or in person prior to the stated closing time. No change(s) or addition(s) or correction(s) or withdrawal of bids will be permitted after the stated closing time. Bids may only be withdrawn after closing with consent of the District.



COMPANY INFORMATION FORM

To: Board of Education of the Long Beach Unified School District

In compliance with the Request for Bids, the undersigned, acting for the firm named, hereby proposes and agrees, if this bid be accepted, to furnish the items and/or services at the prices quoted opposite each item, within the times indicated, and in accordance with the instructions, general conditions, and specifications set forth in these bid documents.

Company Name: _____

Address: _____

Telephone: () _____

E-mail: _____

Tax ID Number: _____

NON-COLLUSION STATEMENT: Bidder hereby certifies that this bid is genuine and not collusive or made in the interest or behalf of any person not herein named, and that the Bidder has not directly or indirectly, induced or solicited any other Bidder to put in sham bid, or any other person, firm, or corporation to refrain from bidding, and the Bidder has not in any manner sought by collusion to secure for himself an advantage over any other Bidder.

OBJECTION TO TERMS: If the Bidder has any objections to the terms of this RFB, these objections must be clearly addressed, in writing, on the a cover letter which shall accompany the bid and shall specifically reference the particular section number, paragraph, and page number of the objection.

Principal Name

Title

Signature

Date



PIGGYBACK CLAUSE

Company Name: _____

For the term of the agreement and any mutually agreed extensions pursuant to this request for bids, **at the option of the vendor**, other school districts, community college districts, any public corporation or agency, including any county, city, town or public corporation or agency within the State of California, may purchase the identical item(s) at the same price and upon the same terms and conditions pursuant to sections 20118 of the Public Contract Code.

The Long Beach Unified School District waives its right to require such other districts and offices to draw their warrants in the favor of the District as provided in said Code sections.

Please initial one of the following:

Piggyback option granted _____

Piggyback option ***not*** granted _____

Acceptance or rejection of this clause will not affect the outcome of this bid.

Exclusions:



ATTACHMENT A - SPECIFICATIONS

I. GENERAL REQUIREMENTS:

This specification is for a chassis that is a low cab over engine (LCOE), designed for the rigorous duty cycles of a refuse collection vehicle and powered by a diesel engine. The load body shall be a hydraulically actuated packer body of the front loading type with the following **minimum** specifications considered necessary to perform the work related to the duty cycles of a refuse collection vehicle. The body shall be capable of compacting and transporting refuse to the landfill or transfer station and dispensing the load by the means of hydraulic ejection. The body shall not be required to be tilted, lifted or otherwise displaced from the chassis in order to eject the load.

Applications for vehicle registration are to be made by the dealer. Vehicles to be registered exempt to the following address, and all tags and registrations are to be sent to: LBUSD Attention: David Lawson, 2700 Pine Ave. Long Beach, CA 90806. The temporary registration must be with the vehicle upon delivery.

II. BIDDER QUALIFICATIONS:

Those prime bidders or sub-vendors who intend to submit a bid proposal must be an authorized and franchised dealer and (or) manufacturer for products being proposed and Bidders and or their sub-vendors must be authorized by their respective original equipment manufacturers to sell, service and warranty products that they are representing. Those wishing to submit a proposal without the said qualifications will be deemed non-responsive.

Bidders and franchised dealers must have adequate support including parts inventory to support such a transaction if awarded. Prime Bidder must have an authorized parts and service center within a 50 mile radius of Beach High School, 3701 E. Willow St. Long Beach, CA 90810. **NO EXCEPTIONS.** Chassis dealers and body companies must provide pickup/delivery of vehicle to make necessary repairs or adjustments during the standard warranty period.

Awarded bidder must provide a like make, model and (or) unit for inspection within 20 days of intent to award notification from Long Beach Unified School District.

III. VEHICLE SPECIFICATIONS

PAYLOAD:

Chassis and body shall be designed and constructed of materials to provide a minimum legal payload of 8.5 tons after subtracting weight of chassis and body.

Chassis Specification Requirements:

Chassis furnished shall be an **Autocar Model ACX left hand drive for a front loading packer body. NO EXCEPTIONS.** Truck is to be used for commercial refuse collection service. This truck will be required to operate under varied and extreme conditions, ranging from repeated stop and go service to freeway travel to and from the landfills and or transfer stations. Ambient temperatures often reach 110 degrees F.



Dimensions:

GVWR: 60,000 lbs. (minimum)

Cab to Axle: Cab to Axle dimension as recommended by body manufacturer.

Wheel Cut: Wheel cut shall be no less than 50 degrees and shall incorporate a 315/80R22.5 front tire and 22.5"x9.0" front wheel.

Engine & Equipment:

Shall be Cummins ISL 8.9L engine utilizing low sulfur 15 ppm diesel fuel and shall meet the minimum requirements.

CID: 546/8.9L

Gross Horsepower: 345 at 2000 RPM.

Gross Torque: 1150 lbs. /ft. @ 1300 RPM

Engine protective system shall be set to the de-rate mode for high coolant temperature, low oil pressure, and low coolant level.

Air Cleaner shall be at least 15 inches in diameter with restriction indicator. Air cleaner shall be horizontally mounted to provide easy access on rear of cab.

Engine Certification: Engine shall be California CARB and EPA Certified approved for use in California and meet the current emissions standards as required by law. Engine shall be in compliance with South Coast Air Quality Management District Rule 1193. **Bidder shall supply documentation verifying CARB certification and chassis manufacture's ability to supply. NO EXCEPTIONS.**

Fuel Tanks:

Single Cylindrical Aluminum 100 Gallon Capacity Frame Mounted

Cooling System:

Radiator: Shall be a heavy duty shrouded, 1300 square inch(minimum) 2-Row aluminum core, fin type radiator shall have de-aeration system conforming to engine manufacturers specifications. Radiator mounting shall be braced and insulated to protect against vibration.

Hoses: All cooling and heater hoses shall be either silicone type or "Gates" blue stripe with constant torque clamps where applicable.

Surge Tank: Shall be remote mounted at back of cab, as low as possible to allow cooling system to be checked from ground level. Surge tank shall have a clear sight glass to indicate fluid level.

Exhaust System:

After treatment device shall be protected or shielded in such a manner that would prevent combustible liquids from coming in contact with it. The muffler / after-treat device shall be vertically mounted on curbside with outlet facing curbside. Turbo and exhaust system shall be shielded from all combustible debris. Exhaust pipe where routed from turbo to entrance of after treatment system shall be blanketed with heavy duty thermal insulation heat exhaust wrapping.

Transmission:

Shall be "Allison" Automatic 4500 RDS Series 6-Speed with appropriate torque converter based on an "Allison" SCAAN report for a refuse truck application. Transmission shall be filled with Castrol "TranSynd" Synthetic Fluid and have as standard a 4 year minimum unlimited miles transmission warranty.

Transmission Cooler: Shall be factory standard oil to water type cooler. All hoses shall be able to withstand the vigorous demands of refuse truck service.

Transmission Shift Control: Shall be "Allison" electronic push button type control with drive train devices including RPM sensor, auto neutral shifting capabilities and electronic fluid level indicator capable of indicating transmission temperature. Transmission must be programmed with an "Auto Neutral" switch activated thru service brake application.

Power Take-Off:

P.T.O. shall be a "Chelsea" Model 870 or equal, engine driven, transmission mounted with adequate clearance between the transmission and chassis frame to allow serviceability of all P.T.O. and hydraulic pump components. P.T.O. shall provide direct mounting for the hydraulic pump, which will operate the refuse body and equipment. P.T.O. shall disengage when powered on and speed exceeds 15 mph. Body builder shall provide a dash mounted switch to power on P.T.O. system.

Propeller Shafts / Drive Train:

Main shaft shall be two piece design with intermediate support bearing and torque capacity rated for specified engine and transmission. U-joints shall be 1760 heavy duty series.

Chassis Frame:

Section Modulus shall be 29.41 minimum. **NO EXCEPTIONS.**

Resisting Bending Moment shall be 3,529,000 single rail without frame liner. **NO EXCEPTIONS.**

Tensile Strength: 120,000 psi.

Axles:

Front – Shall be Meritor 20,000 lb. minimum capacity with transparent oil bath type, front hub covers. Front hubs shall be aluminum. Steering arms and related components shall be engineered specifically for the required wheelbase specified. Front axles shall include synthetic lube.

Rear – Shall be Meritor 40,000 lb. minimum capacity, single speed, single reduction and dual driven in tandem axles. Rear hubs shall be aluminum. Shall be equipped with an air operated inter-axle lockout. Lockout indicator shall be illuminated in dash or console with a permanent label indicating that function. Rear axles shall include synthetic lube. Rear axle ratio shall be selected to provide at top speed of at least 60 mph, and a grade start-ability of at least 27 percent.

Suspension:

Front – Springs shall be rated at 20,000 lb. minimum. Springs shall be taper-leaf type with heavy duty shock absorbers.

Rear – Shall be 40,000 lb. minimum capacity Hendrickson HMX-400 Heavy-Duty Vocational Suspension with heavy duty shock absorbers. **NO EXCEPTIONS.**



Steering:

Shall be hydraulic powered by an adequately specified steering gear and pump for at least the capacity of the front axle.

Note: Steering acumen shall be designed to insure at least a 50 (fifty) degree wheel cut with a 315/80R22.5 tire and a 9.0" aluminum wheel. **Bidder shall provide with the bid proposal documenting their compliance with this requirement. Failure to provide this documentation with the bid will deem the bid non-responsive.**

Turning Radius:

Maximum turning radius shall not exceed 31 feet and curb to curb diameter shall not exceed 62 feet. **Responsive bidder shall provide with their bid proposal documentation showing compliance with this requirement. Failure to provide this documentation will deem the bid non-responsive.**

Brakes:

Service / Foundation Brakes: Shall be Meritor EX-225 Air Disc Brakes 2-Piston for Front & Rear Applications. Air Disc Brakes shall employ an internal adjusting mechanism that monitors and maintains pad to rotor distance. Rear brake chambers shall be 30 square inch minimum.

Air Brake System:

System shall fully comply with all Federal Motor Vehicle Safety Standards (FMVSS) 121 requirements at time of order. Brake system shall incorporate and include an anti-lock brake system. Shall also include the following: Air Dryer, automatic slack adjusters, 18.7 CFM gear driven air compressor, low air pressure warning buzzer, parking brake mounted in cab within easy reach of the operator.

Wheels:

Front - Two (2) 22.5" x 9.00" Polished Aluminum hub piloted mounted wheels.

Rear – Eight (8) 22.5" x 8.25" Polished Aluminum hub piloted wheels.

Tires:

Front – Two (2) Goodyear 315/80R22.5 G289 or equal rated to a minimum of front axle capacity.

Rear – Eight (8) Goodyear 11R22.5 G182 RSD or equal rated to a minimum of rear axle capacity.

Electrical System:

Shall be a 12-volt system, negative ground and include the minimum requirements:

Alternator – Delco Remy 36SI brushless 12-volt 160 amp.

Starting Motor – Delco Remy 12-volt 39MT or equal

Batteries – Three (3) 12-volt 2250 cold cranking amps incorporating a battery shut-off with lock-out capability. Battery box shall be steel with an aluminum diamond plate lid and incorporate a centrally mounted manifold with petcocks to drain air tanks mounted under battery box.

**Cab:**

Type: Autocar ACX64, Left Hand Drive only standard tilt cab for maximum visibility. **NO EXCEPTIONS.** Cab shall be manufactured from steel and be 2-sided galvanized steel constructed. **Fiberglass and Aluminum Cabs are not acceptable.** Cab dimension shall not exceed 68 inches from bumper to back of cab and a floor dimension measured from the ground not to exceed 39.5 inches. Cab shall incorporate "B-Pillar" curved windows allowing operators the largest visibility possible from all positions and sight lines from within the cab. Door panels, stops, hinges shall be adequately braced and supported to withstand any shock and or vibration from a refuse application. Cab access steps shall not exceed 18 inches from ground to first step. Interior of cab shall be adequately covered with high density, sound absorbing and heat absorbing material. Cab shall incorporate adequate interior and exterior grab handles to insure a three point contact for entry and exit. Cab shall have L.H. & R.H. door check straps, dual powered windows, black, heated and powered exterior mirrors with convex. Cab Grille shall be standard offering. Cab floor covering for both driver & passenger shall be covered with aluminum diamond plate. Cab shall have an air horn mounted under cab for increased serviceability and maintenance. Cab shall include a 16 inch steering wheel and incorporate a factory installed **tilt and telescoping steering column.** Driver seat shall be Sears C2 air ride and passenger seat Sears C2 air ride type. Cab shall include factory installed dash mounted air conditioning. **Roof mounted systems are not acceptable.** Cab shall include an AM/FM Stereo roof console mounted to insure best visibility from the cab for the operators. Radio shall mute when the truck is being reversed and when backing up. Cab lift mechanism shall be hydraulic power actuated. Cab noise requirements shall not exceed the maximum noise level allowed in the cab, not to exceed 84dB. Glass shall be tinted.

Provisions to check and service coolant and engine oil without lifting the cab shall be provided. Exterior lighting shall be L.E.D. This shall include front headlights, turn signals and cab interior lighting. **NO EXCEPTIONS.**

Instruments & Controls:

Cab instrument panel shall include a digital vehicle display "Smart Dash Display" which displays in a digital format warnings for critical temperatures, communication errors, stop and active engine faults and ABS errors. Vehicle display shall also have an automatic pre-inspection light check to assist operators while inspecting vehicle lighting. Display shall have feature to access vehicle parameters such as coolant level, PTO hours, amount of fuel used, and fuel economy. Display shall include in a digital readout format including speedometer, odometer, tachometer, oil pressure, coolant temperature, volts, and hour meter. Instrument cluster shall also include all other standard instruments such as air pressure gauges etc.

Windshield wipers shall be dual electric intermittent operated and controlled.

HVAC System shall include fresh air heater with integral defrosters and in-dash air conditioning. No roof mounted air conditioning systems. **NO EXCEPTIONS.**

Front Loader (Eject) Refuse Collection Truck Body**A. Capacity**

1. The Body shall have a minimum capacity of 40 Cubic Yards. Load body shall be **New Way Mammoth or equal.**



B. Body Dimensions

1. Maximum overall body width not to exceed 96"
2. Maximum overall length and height (with tailgate in locked position and arms stowed) above the chassis frame not to exceed: OAL 457", Height 110 3/4"
3. Body Weight (exclusive of options) shall not exceed 16,370 lbs.

C. Body Construction

1. The body sides shall be constructed of minimum 1/8" AR 450 steel formed to a radius for added strength.
2. The body roof shall be constructed of minimum 12 Ga. 80,000 psi yield steel
3. The body floor shall be curved and made of 1/8" AR450.
4. The floor longitudinal shall be 2"x6"x1/4" structural tube.

D. Hopper

1. The hopper shall have a minimum capacity of 12 cubic yards.
2. The hopper floor shall be constructed of minimum 3/16" AR 450 steel.
3. The hopper sides shall be constructed of minimum 3/16" AR450 steel formed to a radius for additional strength. Straight hopper sides are not acceptable.
4. The hopper front shall be enclosed with expanded metal for viewing behind the packer blade and to prevent trash from blowing out.
5. The hopper shall be lined with (6) 1/4" AR450 wear strips to match the wear strips on the packer panel. Plow steel wear strips are not acceptable.
6. There shall be a hydraulic sliding hopper cover constructed of expanded metal and reinforced with 2" x 2" tube.
7. The hopper cover shall be powered by one (1) 1" x 92" double acting hydraulic cover.
8. The hopper cover shall open automatically when raising the lift arms. **NO EXCEPTIONS.**
9. There shall be a SPDT (Single Pull Double Throw) electrical switch in the cab to manually close the hopper cover.
10. Front canopy shall be aluminum. **NO EXCEPTIONS.**
11. There shall be a sliding side access door with a PTO interlock and shall be a minimum of 30" x 30".

E. Packing Mechanism

1. The lower packing panel face sheet shall be constructed of minimum 3/16" AR 450 steel.
2. The packing panel shall slide in a tract constructed of 1/4" formed channel and lined on all three sides with minimum AR400 wear strips.
3. The packing panel shall be activated by two (2) 5.5"x182" four stage telescopic hydraulic cylinders with U-cup seal design. **NO EXCEPTIONS. Specify cylinder manufacturer on the Bid Form.**

E. Packing Mechanism continued

4. The panel shall have a pack cycle of 21 seconds.
5. The packing panel shall be 79" high and 84" wide.
6. The packing panel shall exert a minimum of 107,000 lbs. of packing force throughout the pack cycle.

F. Tailgate

1. The tailgate shall be top hinged and bustle type.
2. The tailgate rear bubble shall be constructed of minimum 1/8" AR 450 steel.
3. The tailgate side sheets shall be constructed of minimum 12 Ga. 80,000 psi. yield Hi-tensile steel.
4. The tailgate shall be secured to
5. the body using two (2) set of hinges with 1-1/2" hinge pins at the roof line
6. The tailgate shall be unlocked, opened and closed by two (2) 3" x 25 1/2" double acting hydraulic cylinders with restrictions to prevent precipitous decent in case of hydraulic line ruptures.
7. The tailgate shall have a four point positive lock system without the need for turnbuckles.
8. The tailgate shall be equipped with a one piece replaceable rubber gasket, extending across the bottom width of the tailgate and vertically up the side 36"
9. A warning light and buzzer shall be installed in the cab to indicate when the tailgate is open.

G. Lifting Arms

1. The arms shall be fabricated tube design. The arm is comprised of 3" x 3/8" 100k upper and lower continuous flat bar. (Multiple piece welded flat bar is unacceptable). The arms shall be covered with 3/16" AR450 steel side plates.
2. The lift arms shall have a 10,000 lbs. capacity and **ARMS MUST BE BOLT ON TYPE AND SAME ON LOWER FRONT CROSSSHAFT. NO EXCEPTIONS.**
3. The arm shall provide a progressive slow stop before coming into contact with the rubber arm stops by use of a proportional control valve. (Internal cushioning of the arm cylinders is not acceptable).
4. The load arm cycle time shall not exceed 12-13 seconds.
5. The lift arms shall be powered by two (2) 4-1/4" x 45 1/4" double acting cylinders with 2" rods.
6. The arm pivot shaft shall be constructed of 4-1/2" OD x 1/2" wall DOM. **NO EXCEPTIONS.**
7. The pivot bushings shall have a minimum four (4) split type bronze bushings to prevent wear.
8. The forks shall be constructed of minimum 1-1/4" 100k plate steel measuring 48 3/4" long from bump stop to tip and tapered at the end.

G. Lifting Arms continued

9. The fork rotation shall be accomplished by two (2) 3-1/2" double acting hydraulic cylinders with 24" stroke, with a minimum 1-1/2" rod.
10. The fork pivot shaft shall be constructed of 4-1/2" OD x 3/8" wall DOM tube.
11. The fork bushings shall be of the split bronze type bolted to the arms with four (4) 3/4" grade 5 bolts on each side.
12. There shall be UHMW arm rub plates mounted to the upper hopper sides.

H. Controls

1. The operating controls shall be located in the cab easily accessible to the driver. Must have outside controls.
2. The fork and arm function shall be controlled by quad control joystick.
3. Warning signals shall be incorporated into all circuits monitoring abnormal compactor operations.
4. All controls must utilize J1939 CAN-BUS protocol to interface with the chassis and controllers located throughout the body's electrical system.
5. The packer, hopper cover, and rear door operation shall be controlled by SPDT electrical switches.
6. The rear door shall not operate without depressing a safety switch in conjunction with the tailgate rocker switch to prevent accidental opening of the rear door.
7. The arm control shall have an interlock to prevent dumping behind the packer panel.
8. An in cab display with diagnostics must be standard, to include operator warning messages and lights.
9. Proximity switches shall be used throughout the body, **NO EXCEPTIONS**

I. Hydraulics

1. Hydraulic reservoir shall be supplied with a minimum capacity of 70 gallons and equipped with a fluid sight gauge, temperature indicator, air breather filter, magnetic trap, and gate valve on the suction line.
2. Hydraulic reservoir shall be constructed from aluminum for heat dissipation and weight reduction. Steel tank is unacceptable. Must have service hoist.
3. The reservoir shall have a 100-micron suction strainer and equipped with a built in 3 psi bypass for pump protection.
4. The body shall be powered by a transmission mounted "Hot Shift" PTO with direct mounted pump.
5. All hydraulic functions shall be controlled by an electric operated PVG32 hydraulic valve or equivalent. Valve to be mounted to front of hopper (not under body).
6. All hydraulic hoses shall be SAE approved construction with hose burst pressure four times working pressure and have protective coverings. When possible, seamless steel tubing with zinc clear coating shall be used and held in place with shock absorbing bolt on clamps.

I. Hydraulics continued

7. All hose ends, tubing and adapters shall have JIC 37 degree flare fittings.
8. Normal maximum operating pressures shall not exceed 2450 psi.
9. The hydraulic system shall incorporate a relief valve to protect all components from excess pressures.
10. All cylinder rods shall be chrome plated.
11. Automatic Packer – The hydraulic system shall include automatic pack function to allow a continuous pack cycle.
12. The packer panel in extend or retract mode shall automatically accelerate at 1,450 – 1,550 RPM when truck is in neutral.
13. The auto pack function shall include a pack start button and a neutral safety to disable automatic acceleration if the transmission is in gear. PTO kill switch provided on the hopper access door.

J. Electrical

1. All body wiring shall be loomed or in conduit.
2. The body shall be equipped with approved LED clearance, warning, tail, license, stop, reverse and turn signals in compliance with the national safety standards.
3. All clearance, back-up, and directional lights shall be shock mounted and be in rubber grommets.
4. The body shall be equipped with an external audio back-up alarm activated when the truck is in reverse.
5. A light shall illuminate in the cab when the tailgate is open and audible alarm will sound when the tailgate is open.
6. A camera system shall be installed with a 6.5" sized minimum color LCD waterproof display monitor for viewing rear of body and for safety when truck is in reverse. Intec CVC500AH camera with audio and Intec CVD 650LCD display is preferred. Camera system provided must have a 5 yr. minimum warranty. **NO EXCEPTIONS. Specify camera system brand and model on the Bid Form.**

K. Cab, Chassis and Body Paint

1. Cab Paint – DuPont Imron 5000 N0007EX White shall be applied to all cab surfaces that are not chromed or aluminum.
2. Chassis Frame – Standard Black
3. Load Body – DuPont Imron 5000 "Western Waste Orange"

L. Warranties

1. Cylinders: 5 Year Limited Warranty from date of delivery.
2. Hydraulic Pump and Valves: 2 Years from date of delivery.
3. Packer Unit: 1 Year from date of delivery.

M. Options to be Included

1. Camera – AWTI 3rd. Eye Safety Vision Camera to be mounted rear on tailgate, rear alley camera, hopper, and A-Pillar side view safety camera mounted on RH side.
2. 48" Storage toolbox mounted on right hand side behind fuel tank.
3. Hopper Work Lights Qty. (2)
4. Height Over Ride Switch
5. Spill Kit mounted on right side frame rail
6. Shovel & Broom Kit. Location to be determined at post award meeting.
7. Body mounted 20 lb. fire extinguisher.
8. Mid-Body Marker Turn Signal
9. Fender Lights Rear Facing LED Type
10. Smart Lights (4) 4" on Tailgate
11. Ladder for Body Mounted Curbside.
12. Tailgate Drip Pan
13. Service Hoist – The body shall be equipped with a self-contained 12 VDC motor and pump and separate cylinder to lift the body for service and access to transmission. The body shall also be equipped with safety prop rod to prevent body from falling if cylinders should fail.
14. 2 ea. Power points: one accessible by the driver and the other accessible by the passenger.
15. 2 ea. Deep cup holders: one near the driver and one near the passenger.
16. Top of the cab shall have a spray on black coating, Rhino liner or equal.
17. Around both head lights there shall be a black coating, Rhino liner or equal.
18. Strobe light mounted on the rear center of back door on the rubbish body.



BID FORM

Company Name: _____

ITEM	QTY	UOM	DESCRIPTION	UNIT PRICE
1	1	EA	TRASH TRUCK, FRONT LOADER, AS PER SPECIFICATIONS	
(DO NOT INCLUDE SALES TAX)			TOTAL BID AMOUNT	\$

REQUIRED INFORMATION:	
BODY MANUFACTURER:	MODEL:
CHASSIS YEAR:	BODY YEAR:
CAMERA SYSTEM – BRAND:	MODEL:
PACKING CYLINDER MANUFACTURER:	
LEAD TIME (DELIVERY DAYS ARO):	