

**CITY OF WEST COLUMBIA, SC
REQUEST FOR BIDS
PW-2011-001
HIGH COMPACTION REAR LOADER
BID SPECIFICATIONS**

PURPOSE

It is the intention of these specifications to describe the minimum requirements for a rear loading design refuse collection truck. The bidder shall represent by his bid that all equipment bid is new and unused.

Features that are regularly furnished as standard with this unit shall be supplied by the successful bidder. The chassis and body shall conform in strength, quality of material, and workmanship to that provided by the best manufacturing and engineering practices of the industry. Assemblies, sub assemblies, and component parts shall be standard and interchangeable throughout the entire quantity of units as specified in this invitation to bid.

The equipment furnished shall conform to the latest version of ANSI Safety Standard Z245.1 for refuse collection equipment. The unit shall also conform to Federal Motor Vehicle Standard FMVSS-108 lighting standards for truck chassis and mounted bodies.

Process

Interested bidders must submit written bid documents by mail to:

Charles Garren, Public Works Director
P.O. Box 4044
West Columbia, SC 29171-4044

or by e-mail to:

cgarren@westcolumbiasc.gov

or in person at:

Customer Service Center
West Columbia City Hall
200 N. 12th Street
West Columbia SC 29169

The City accepts no responsibility for submissions lost in transmission, mishandled or delivered late by delivery agents.

WRITTEN BIDS

All bids must be submitted in writing using this bid document and must be received at City Hall before 2:00 p.m. on Wednesday, July 28, 2010.

Bidder shall complete every space in this specification by making the appropriate notations in the column to the right of each item. If the item bid is exactly as specified, the bidder shall write “**Yes**” in the column beside that item. If the item bid is not exactly as specified, the bidder must write “**No**” in the column and provide a detailed description of the deviation from the item specification, using a separate page – no exceptions.

Omission of a detailed description or specification of any point shall be regarded as meaning that only the best commercial practice shall prevail and that only material of first quality and correct type, size, and design are to be used.

Bids will be opened at 2:15 p.m. on Wednesday, July 28, 2010 at the West Columbia City Hall. The bid opening will be open to the public. Appropriate city staff will review submitted bids and a recommendation will be presented to City Council at its regular meeting on Tuesday, August 3, 2010. The City of West Columbia reserves the right to reject any and all proposals that are not deemed to be in the best interest of the citizens of the City of West Columbia. Notification to awarded bidder, if any, will be made not later than 5:00 p.m. on Thursday, August 5, 2010.

ADDITIONAL INFORMATION

Interested bidders may contact Charles Garren, City of West Columbia Public Works Director, at 803-739-4322 or cgarren@westcolumbiasc.gov for additional information.

ADDENDA NOTIFICATION FORM

**PW-2011-001
HIGH COMPACTION REAR LOADER**

The City will attempt to notify all prospective firms of addenda issued to the bid document. However, it shall be the responsibility of the firm, prior to submitting their bid, to contact the city representative previously listed to determine if addenda were issued, acknowledging and incorporating it into their proposal. If it becomes necessary to revise any part of this request for bids, an addendum will be posted on the City's website at www.westcolumbiasc.gov. It is the responsibility of the Vendor to check the website for addendum up to the time of the proposal closing.

As Addenda are considered binding as if contained in the original specifications, it is critical that the Vendor acknowledge receipt of same. The submittal may be considered void if receipt of an addendum is not acknowledged.

If you would like to request notification of any addenda that may be issued regarding this project, please complete the form below and return via fax to 803-739-6321, attention Charles Garren. This form may also be completed, scanned and e-mailed to cgarren@westcolumbiasc.gov.

By completing and returning this form, you are requesting notification of addenda that may be issued regarding this specific project only.

VENDOR NAME: _____

CONTACT PERSON: _____

E-MAIL ADDRESS: _____

PHONE NUMBER: _____

FAX NUMBER: _____

STATEMENT OF NON SUBMITTAL

**PW-2011-001
HIGH COMPACTION REAR LOADER**

If you **do not** intend to submit a bid on this service, please return this form to the above address immediately, fax to 803-739-6231, or e-mail to cgarren@westcolumbiasc.gov. If this statement is not completed and returned, your company may be deleted from the City of West Columbia list for this service.

We the undersigned, have declined to submit a proposal on the requested service **PW-2011-001 HIGH COMPACTION REAR LOADER** for the following reason(s):

- Insufficient time to respond to the Request for Bid.
- We do not offer this service.
- Our schedule would not permit us to perform.
- Unable to meet bond/insurance requirements.
- Unable to meet proposal specifications.
- Specifications are unclear (explain below).
- Remove us from your vendors' list for this service.
- Other (specify below).

Remarks: _____

Vendor name: _____

Representative: _____

Signature: _____

e-mail address: _____

Telephone: _____ Date: _____

Tandem Axle Cab and Chassis

General Specifications:

The intent of these chassis specifications is to describe a tandem cab and chassis designed for 25-yard rear loader truck application. The proposed chassis shall be of conventional design with standard cab and all necessary standard equipment for on and off road vocational use. This cab and chassis will travel into a landfill.

Yes / No

GENERAL

- | | |
|--|-------|
| 1. Minimum certified GVWR shall be 60,000 pounds. | _____ |
| 2. Tandem Rear Axle | _____ |
| 3. Vehicle shall be so that it will have a clear span of 158" inches from the rear of the cab to the center of the tandem. | _____ |

ENGINE EQUIPMENT AND TRANSMISSION

- | | |
|---|-------|
| 1. Minimum 350 HP engine with minimum 1240 lbs. ft. of torque | _____ |
| 2. Automatic 6-speed Allison 4500 RDS transmission rated for refuse duty. | _____ |

AXLES, SUSPENSION

- | | |
|--|-------|
| 1. 16,000 lbs. Front Axle. | _____ |
| 2. 44,000 lbs. Rear Axle/ dual reduction with 44,000 lbs. or greater capacity and bronze bushings. | _____ |

CHASSIS EQUIPMENT

- | | |
|---|-------|
| 1. Frame rails minimum RBM of 2.3 million. | _____ |
| 2. Batteries to meet 2700 CCA. | _____ |
| 3. Battery Box Frame Mounted. | _____ |
| 4. Dust Shields. | _____ |
| 5. One 75-Gallon Fuel Tank mounted passenger side. | _____ |
| 6. Front Tow Hooks. | _____ |
| 7. Vertical Exhaust not to interfere with body mounting or use. | _____ |
| 8. Air-ride Cab suspension | _____ |

CAB INTERIOR

- | | |
|---|-------|
| 1. All glass used shall be tinted and shatterproof. | _____ |
| 2. Bucket type seat for driver and 2 man passenger (driver's seat shall be air controlled). | _____ |
| 3. Air Conditioning. | _____ |
| 4. Dash Mounted Air Restriction Monitor. | _____ |
| 5. Tilt and /or Telescoping Wheel. | _____ |
| 6. Air Ride Seat for Driver with Armrest. | _____ |
| 7. CB Radio Provisions in Overhead Console. | _____ |
| 8. Suspended Pedals. | _____ |

CAB EXTERIOR, WHEELS & TIRES

- | | |
|---|-------|
| 1. Shall be white ext. color with black chassis running gear. | _____ |
| 2. Radiator mounted grill. | _____ |
| 3. 315/80R22.5 Front Tires with steel hub piloted wheels. | _____ |
| 4. 11R22.5 Rear Tires with steel hub piloted wheels. | _____ |

EQUIPMENT

Truck shall be furnished complete with all equipment customarily furnished as “Standard” and all standard safety equipment as required by federal standards. The following shall be factory installed in addition to (or in the place of) the regular equipment:

- 1. Lights to meet all federal and state regulations. _____
- 2. Two front tow hooks mounted to the frame. _____
- 3. Direct reading gauges. _____
- 4. Two West Coast retractable heated mirrors. _____
- 5. Fresh air type cab heater and defroster. _____
- 6. Heavy-duty fully adjustable drivers seat (air controlled). _____
- 7. AM/FM radio. _____
- 8. Dual air horns. _____
- 9. Deluxe factory installed air conditioning. _____
- 10. Battery disconnect switch. _____

WARRANTY

All equipment shall be warranted for one full year of operation. A copy of the warranty is to accompany the bid. Also, the supplier shall furnish the name and location of the nearest service center (parts and service).

SERVICE LITERATURE

The successful bidder shall furnish factory service bulletins for minimum of two years from the beginning of the contract (this is to include warranty bulletins). One copy of the shop manual is to be furnished to the City’s Maintenance Shop upon delivery of the truck.

25-yard Rear Load Body

Yes or No

DIMENSIONS

1. The minimum capacity of the body shall be 25 cubic yards exclusive of hopper. _____
2. The minimum capacity of the hopper shall be 4.0 cubic yards. _____
3. The body shall be designed to allow high-density compaction of up to 1050 lbs. per cubic yard of dry household refuse. _____
4. The maximum overall width shall be 96 inches. _____
5. The overall length of the body shall be a minimum of 288" inches. _____
6. The maximum height above the chassis frame shall be 94" inches. _____
7. The inside width of the body shall be 90 inches at the widest point. _____
8. The inside height of the body shall be 82.5 inches at the highest point. _____
9. The minimum weight of the body 16,000 lbs. _____

BODY CONSTRUCTION

1. The body shall have a smooth floor without a trough. Floors with trough or depression are not acceptable. No cylinders, valves or other hydraulic components shall be exposed to refuse packed into the body. _____
2. The body floor, sides and roof shall be designed and constructed to withstand maximum imposed of residential refuse without structural damage or excessive wear. _____
3. The body sides shall be fabricated from 8 gauge hi-tensile steel and be of a curved one-piece design. Body side seams are unacceptable. _____
4. The body roof shall be fabricated from 8 gauge hi-tensile steel and shall be of a curved design. _____
5. A 28" x 34" body side door shall be located on the driver's side. The door shall be equipped with a spring-loaded latch, access ladder and grab handles. Door hinges must be hidden and located inside of body. _____
6. The body floor shall be fabricated from 3/16" thick hi-tensile steel full width of the body with no depression or trough to accommodate the ejector cylinder. _____
7. The body longitudinal shall be tall fabricated from 1/4" hi-tensile steel. _____
8. The floor cross-members shall be tapered from the long sill outboard to the body side sheet. _____
9. The floor cross members shall be fabricated from 7 gauge hi-tensile steel. _____
10. Body shall come with a minimum one-year part and labor warranty, hopper blade to have a two year structural warranty. (Please attach warranty) _____

TAILGATE DIMENSIONS

1. The hopper opening shall be 75" wide and 62" high to permit unobstructed loading of the tailgate hopper. _____
2. The top of the loading sill shall be 4" inches below the top of chassis frame to facilitate easy loading. _____
3. The overall height above the chassis frame with tailgate raised shall be 184" inches. _____

TAILGATE CONSTRUCTION

1. The tailgate sides shall be fabricated from abrasion resistant 3/16" T-1 alloy 100,000 P.S.I. minimum-yield strength steel. _____
2. The hopper floor and chute shall be a one-piece design fabricated from 1/4" T-1 alloy 100,000 P.S.I. minimum-yield strength steel plate. _____
3. The tailgate sides shall be reinforced with hi-tensile steel channels interlaced and fully welded to the side sheets. _____
4. The hopper and chute floor shall be reinforced with hi-tensile steel channels. _____

5. The tailgate shall be secured to the body with heavy-duty 1" diameter turnbuckles equipped with fast spin handles. _____
6. The tailgate seal shall extend a minimum 50" up the body side. _____
7. Two grab handles shall be located on each side of the tailgate. _____
8. The rear steps shall be fabricated from open grip strut material with a minimum standing surface of 330 square inches per step. The steps shall comply with A.N.S.I. standards. Steps shall be of a bolt on design. _____
9. The hopper loading sill shall be constructed of 3" x 4" x 3/8" wall structural tubing. _____

PACKING MECHANISM

1. The packing cycle shall be controlled by a two-lever control system that allows the operator to start, stop and reverse the direction of any function at any point during the packing cycle. _____
2. The tailgate control valve shall be located under the top covers. _____
3. The packing blade assembly shall consist of two primary components: the slide blade and the sweep blade - _____
 - a) The packing blade assemblies shall be mounted on four wear shoe assemblies that travel on hardened steel wear tracks. The shoe assemblies shall be replaceable without removing the packing blade; two 3" diameter alloy steel pins shall attach the slide blade. These pins shall also support the two (2) lower wear block assemblies. _____
 - b) The slide blade shall be constructed from 3/16" hi-tensile steel plate. _____
 - c) The sweep blade shall be mounted to and pivot on the slide blade. The sweep blade shall be fabricated from 1/4" T-1 steel plate, varying in thickness. _____
4. Packing blade assembly shall ride on four UHMW polyethylene shoe assemblies. Metallic type shoes or rollers are unacceptable. _____
5. The blades shall operate with the use of linkage or link arms. _____
6. The packing blades shall be powered by two (2) 5" Bore x 3" Rod x 23 1/2" stroke sweep cylinders and two (2) 5" Bore x 2 1/2" Rod x 43" stroke slide cylinders. _____
7. The slide and sweep cylinders shall have hardened chrome-plated rods and be of cushioned design, to reduce hydraulic shocks, noise, and impact related stresses. Sweep cylinder shall have hardened bushings at rod side pivots. _____
8. The packing blades shall operate at a minimum 22 seconds cycle time with an 11-13 second reload time. _____
9. The sweep blade shall stop above the hopper sill to prevent a pinch point. _____
10. Material in the hopper shall be compacted between the packing panel assembly and the ejector panel. The ejector panel shall hold pressure against the compacted material and be automatically advanced by a hydraulic load control valve without operator assistance. _____
11. "Pack on the go" enabled to allow hydraulics to engage while truck is in forward gear and RPM's are below a specified level. Hydraulics shall disengage when RPM's exceed the specified level. _____

EJECTION SYSTEM

1. The load shall be ejected by a double acting, telescopic hydraulic cylinder that shall extend and retract the ejector panel the full length of the body without the use of clamp bars or related hardware. _____
2. The ejector cylinder shall be a 4-stage 6.5" cylinder. _____
3. The ejector panel shall be a 3/16" hi-tensile steel face sheet that is reinforced by structural steel tubing and formed channels of high tensile steel. _____
4. The ejector panel shall be mounted on four (4) high-density polyethylene wear shoes that shall be replaceable without removing the ejector panel from the body. Metallic type shoes are unacceptable. _____
5. The ejector panel shall be guided in the body by two guide tracks located on the body side 6" above the body floor. The tracks shall be 6" deep, fabricated from 1/4" hi-tensile steel and fully welded to the body sides. _____

6. The ejector cylinder shall be mounted diagonally to the body floor and not require a trough or depression in the floor. Troughed floors are unacceptable. _____

CONTROLS

1. The ejector and tailgate lift controls shall be mounted at the left front of the body. _____
2. Ejector and tailgate controls shall be mounted directly to the valve spool. _____
3. A throttle advance switch shall be located convenient to the ejector and tailgate lift controls. _____
4. The tailgate controls shall be located at the right rear of the tailgate. The two-lever design shall use spherical rod ends for positive control of movement of the packing mechanism all times. The tailgate controls shall comply with the applicable N.S.I. regulations. _____
5. An automatic throttle advance device shall be incorporated with the tailgate controls. _____

HYDRAULIC SYSTEM

1. A heavy duty cast iron gear pump with a minimum capacity of 40 G.P.M. at 1200 R.P.M. shall be driven by a hot shift with overspeed protection. All switches, PTO warning lights and controls mounted on dash. _____
2. For extended life of all hydraulic components the maximum operating pressure shall not exceed 3000 P.S.I. _____
3. The hydraulic system shall incorporate an adjustable relief in the body valve and a regen valve for increased cycle time. _____
4. Hydraulic hoses and tubes shall be secured by clamps as required to prevent damage from abrasion and vibration. Hydraulic hoses and tubes shall use S.A.E. O-ring boss and JIC 37 degree flare ends for zero leaks. _____
5. Hydraulic hoses shall comply with the applicable S.A.E. standards for the designed specifications. _____
6. Hydraulic hoses are to have a 4:1 burst-to-working pressure safety factor. _____
7. The hydraulic oil reservoir shall have a minimum capacity of 42 gallons. The reservoir shall be equipped with filler, breather cap, sight glass, clean-out cover, 100 mesh suction filter, magnetic tank drain plug and gate valve at the suction outlet. The hydraulic reservoir shall not be a structural member of the body or the mount for the ejector cylinder. _____
8. A 6-micron synthetic micro glass tank to return line filter shall be located on the hydraulic tank and be equipped with a condition indicator. Pleated paper filters are not acceptable. _____
9. A suction screen filter of 100 mesh (141 micron) shall strain all the oil leaving the tank. Suction filter shall be equipped with a 5 P.S.I. bypass valve. _____
10. All hydraulic valves shall be sectional that would allow replacement of defective sections without replacement of the entire valve. _____
11. All cylinders and valves shall have SAE O-ring boss ports. _____

HYDRAULIC CYLINDERS

1. All cylinders shall have a working pressure rating of 3000 P.S.I. _____
2. The sweep and slide cylinders shall have hard chrome plated rods and be cushioned to reduce hydraulic shock at the end of the stroke. _____
3. The sweep, slide and tailgate lift cylinders shall carry a minimum full three-year parts and labor warranty. _____
4. Tailgate cylinders shall have hardened chrome plated cylinder rods, and be equipped with restrictors to limit the speed of raising and lowering of the tailgate. _____
5. All rod cylinders shall have cast iron glands and pistons and be equipped with double wear bearings and premium seals. Aluminum glands and pistons are not acceptable. _____
6. Telescopic cylinders shall have chrome plated cylinder sleeves and plungers. _____
7. All cylinders are to operate without direct contact with the compacted load. _____

ELECTRICAL

1. All electrical wiring shall be color-coded and be in a braided harness or loom. _____
2. Electrical harnesses shall be connected with a sealed aircraft type electrical connector. _____
3. Electrical wires shall be stranded copper type with a SXL covering to remain flexible and resist deterioration. _____
4. Electrical wires shall have function printed on the wire for easy identification. _____
5. Body electrical system shall be protected with its own fuse block. _____
6. All fuses shall be ATO type. _____
7. All limit switches shall be waterproof to prevent damage from the elements and pressure washing. _____
8. All lighting shall comply with F.M.V.S.S. #108, with an additional set of two stop, tail and turn lights mounted above the hopper on a light bar. _____
9. Clearance, backup, stop and directional lights shall be rubber grommet mounted with sealed light housings, lexan lenses, vibration resistant filaments, and unitized sealed quick change prong connections. _____
10. A 112 Db backup alarm conforming to current standards must be provided. _____
11. The alarm must also sound when the tailgate is not closed. _____
12. Rear LED strobe system with (4) strobes on rear with in-cab switch. Lights to be mounted on rear light bar (2) and bottom corners of tailgate (2). _____
13. Two (2) work lights mounted in tailgate to light up hopper and surrounding area for safe operation in morning and evening. _____

PAINTING

1. All burrs and rough areas are to be ground smooth and all welds preened to remove slag. _____
2. Prior to application of any coating, all surfaces shall be thoroughly cleaned and conditioned to paint manufacturer's specifications. _____
3. The body shall then be coated with two (2) coats of a self-etching epoxy primer. _____
4. The entire body underneath shall be undercoated and a Rhino lining protective coating installed against chipping in wheel area. _____
5. Two finish coats of polyurethane enamel shall be applied to produce a high gloss finish. Color to be white to match cab. _____

ADDITIONAL EQUIPMENT

1. Twin Barker 602 (or equivalent) tippers on the rear with individual handles - one per side - setup for the City's roll carts. _____
2. Rear view camera system with in-cab monitor, 6" B&W-screen and auto on in reverse. _____

DELIVERY

1. Delivery of the specified truck must be guaranteed for not later than **December 1, 2010**. Failure to complete delivery and invoicing by that date may result in the City's refusal to complete the purchase. _____

OTHER

1. A list of at least **3** current or former municipal users in South Carolina is to be returned with the bid. The list must include contact names and phone numbers. _____
2. Service and parts support to be located no more than 50 miles from the city maintenance shop located at 1125 Leaphart Street, West Columbia SC 29169. Factory replacement parts must be deliverable within 24 hours if support location is not a stocking parts facility. _____

Option A: Financing

Bidders may provide detailed information of financing options that may be available to the City by the bidding company or organization. Any financing opportunities offered shall be listed as a separate option in the bid document and equipment bid pricing shall not be contingent on utilizing financing offered by the bidder. The City reserves the right to seek financing from other sources if it is deemed to be in the best interest of the City.

Name of Representative Completing Bid Submission: _____
Representative Phone Number: _____
Representative Address: _____ _____