Notice To Bidders

Automated Garbage Truck

The City of Colstrip will receive sealed bids for a Refuse Collection Truck until 10:00 a.m. Friday, February 19, 2016, at City Hall, 12 Cherry Street, Colstrip, Montana, at which time and place all bids will be publicly opened and read aloud. Bid packets and specifications are available upon request at Colstrip City Hall, 12 Cherry Street in Colstrip, Montana (406) 748-2300 and online at www.cityofcolstrip.com.

Bids shall be addressed to the City Clerk/Treasurer, City Hall, P.O. Box 1902, Colstrip, Montana, 59323, sealed, dated and enclosed in an envelope appropriately marked on the outside "Proposal for Refuse Truck," marked with the name of the bidder, and mailed to reach the designated office on or before the indicated bid opening date and time.

The City reserves the right to reject any and all bids received or any part thereof, to waive irregularities, to postpone the award of the contract and to accept the bid which is in the best interest of The City of Colstrip.

Published in the Independent Press and Billings Times January 28th, February 4th and 11th .

Michelle Richards,
Colstrip City Clerk/Treasurer

Tomorrow's Town... Today!

Instructions to Bidders

Bidders will observe the following instructions together with those obtained in the "Notice to Bidders".

1. Contract Documents

The following are part and parcel of the Contract and whenever the word "Contract" appears herein, the same shall be held to include all of these items:

A. Legal and Procedural Documents
   1. Notice to Bidders
   2. Instructions to Bidders
B. General and Technical Specifications
C. Trade Unit Information Sheet
D. Extended Warranty Information Sheet
E. Bid Proposal Form

2. Definitions

Wherever the words "Owner" or "City" are used herein, it shall mean the City of Colstrip. Wherever the word "Bidder" is used in the documents, it shall mean each or any of the persons, partnerships, or corporations submitting proposals for the equipment, supplies or construction project covered by these specifications. Wherever the word "Contractor" is used herein, it shall mean the person, firm or corporation entering into the Contract for the equipment, supplies or construction project covered by these specifications.

3. Proposals

Bids shall be made upon the form furnished with all items properly filled out; numerals shall be written in ink, and the signature of all persons signing shall be in longhand. If discrepancies exist between an extension or indicated sum of any column of figures, the corrected extensions or sum thereof will govern.

Bids shall not contain any recapitulation of the equipment to be bid, and alternative proposals will not be considered unless called for. Nor oral, telephonic or telegraphic proposals or modifications will be considered.

Before submitting a bid, bidders shall carefully examine and read the specifications, and form and terms of the Contract, and shall fully inform themselves as to all existing conditions and limitations, and shall include in the bid, a sum to cover the cost of all items included in the Contract. Making a bid creates a conclusive presumption that these things have been done.

All bids must be sealed, addressed to and deposited with the City Clerk, P.O. Box 1902, Colstrip, MT 59323 on or before the day and hour set for opening of bids in the advertised "Notice to Bidders". The bids must be endorsed on the outside with the title of the equipment and the name of the bidder.

4. Proposal Guarantee

Each proposal must be accompanied by a certified check, cashier's check, or draft for five percent (5%) of the amount of the bid, such check shall be certified or issued by either a State or National Bank, and payable to the City of Colstrip or in lieu thereof, a bid bond for ten percent (10%) of the amount of the bid, such bond to be issued by a surety authorized to do business in the State and payable to the City of Colstrip. The check or bond will be retained by the City as liquated damages if the successful bidder refuses or fails to enter into a contract in accordance with the bid when notified.

5. Withdrawal of Bid

Bids may be withdrawn by the bidder prior to, but not after, the time set for opening of bids.

6. Interpretation of Documents

Should a bidder find discrepancies in or omission from the Specifications or should they be in doubt as to their meaning, they shall, at once, notify the Public Works Director; and if the point in question is not clearly and fully set forth, a written addendum or bulletin of instructions will be mailed or delivered to each person obtaining a set of contract Documents as provided for in the "Notice to Bidders". Each person requesting an interpretation will be responsible for the delivery of his/her request to the Public Works Director. The Owner will not be bound by, or responsible for any other explanation of interpretations of the proposed documents than those given in writing as set forth in this paragraph. No oral instructions, interpretations or representations shall be binding upon the Owner.

7. Substitution for Patented and Specified Articles

Whenever in the Specifications, any material or process is indicated or specified by patent or proprietary name and/or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating description of the material and/or process desired, contractor may offer any material or process which shall be equal in every respect to that so indicated or specified; provided however, that if material, process or article offered by the Contractor is not, in the opinion of the Public Works Director, equal in every respect, then the Contractor must

furnish the material, process or article specified or one that, in the opinion of the Public Works Director, is the equal thereof in every respect.

8. Award or Rejection of Bids

The owner reserves the right to reject any part or all of any and all bids and to waive any informality in the bids received. The contract will be awarded to the lowest responsive and responsible bidder.

9. Consideration of the Proposals in the Awarding of Contract

Promptly after the opening of the proposals, a compilation of them will be prepared, and the certified checks of these bidders, who in the judgment of the Owner, should not be considered in making the award, will be returned. The other checks, except that of the successful bidder, will be returned as soon as a Contract is awarded or after a lapse of thirty (30) days of time from the opening of bids.

The check of the successful bidder will be kept until delivery of the equipment bid. The Contract will be awarded within thirty (30) days after the opening of bids unless all bids are rejected. The successful bidder will be required to execute the Contract within ten (10) days of receipt of the Notice of Award to him/her. Failure to do so shall be just cause for the annulment of the award and in the event of such annulment, he certified check of the bidder shall become the property of the City of Colstrip. Award may then be made to another bidder or the Owner may call for other bids.

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City of Colstrip, Montana
Bid Specifications
Automated Refuse Collection Chassis

To Consist of: One (1) new Cab Over Tandem Axle Truck Compatible with 27 Cu. Yd. Automated Full-Eject Refuse Packer Body

The vehicle described herein shall be new production chassis compatible with new 27 cubic yard automated refuse body mounted, operational and in first class running condition. All parts and accessories that are required to compose a complete unit shall be furnished whether herein stipulated or not. Unless otherwise noted in these specifications, all equipment cataloged as standard shall be furnished and included in the purchase price of the unit.

This truck will be used for collecting/hauling various refuse materials for the City of Colstrip. The City of Colstrip will be accepting bids for one (1) cab/chassis with automated refuse packer body installed. The successful bidder will be responsible for setting times for the refuse packer and other equipment to be mounted and delivery of the complete unit to the City of Colstrip.

Schedule 1
CAB AND CHASSIS

SECTION 1	**Standard Options**	**Exactly as Specified**
All standard equipment and options, whether expressly, stated herein or not shall be included.		Yes_____ No _____
SECTION 2	**Color**	
Dupont L0006EB White		Yes _____ No_____
SECTION 3	**Cab**	
Unit shall be drivable from the right hand position (Steering must be installed at the factory)		Yes _____ No _____
Unit shall be cab over chassis and be of the low profile type so that the operator will only have one step to be out of the cab.		Yes _____ No _____

All windows shall be tinted safety glass; rear window shall be 18.5" x 54"	Yes _____ No _____
Driver seats (right side) shall be a Sears C2 air ride (low profile or equal). Seat must allow for seat tilt, back angle and lumbar adjustment. Seat covering to be fabric.	Yes _____ No _____
Retractable seat belts shall be of the lap/shoulder type	Yes _____ No _____
Unit shall have a cold climate package with deluxe interior with insulated headliner	Yes _____ No _____
Unit shall have the heaviest duty available, high output, hot water type heater equipped with a multi-speed fan and manual temperature control.	Yes _____ No _____
Unit shall have two heavy-duty windshield wipers with intermittent switch and windshield washer shall be installed	Yes _____ No _____
Unit shall have arm rests on left door, if not provided on seat	Yes _____ No _____
Unit shall have minimum 30" grab rails on both sides	Yes _____ No _____
Unit shall have dual sun visors	Yes _____ No _____
Unit shall have dome lights, with manual and automatic door switch	Yes _____ No _____
Electric horn and air horn with shield shall be provided	Yes _____ No _____
Cab shall be equipped with a right-hand and left-hand heated/ motorized outside mirror not less than 6" x 16" and a separately adjustable minimum 8" round convex mirror to be attached to the main mirror supporting rods on each side (mirror must be able to fold when struck)	Yes _____ No _____
Fuel tank shall be an ICC approved heated tank with a minimum capacity of eighty gallons	Yes _____ No _____
Unit shall have a factory installed CD player/AM/FM radio (with clock)	Yes _____ No _____
Unit shall have 1 Motorola Mobile Two-way Radio installed and operational. Model CM200D. The City uses Tab Electronics in Glendive MT. Phone 406-365-4310. They have the program	Yes _____ No _____

sequence for our radios.	Yes_____No_____
Front bumpers shall be provided. If not a factory bumper, then it shall be noted in the bid	Yes _____ No _____
Full-length heavy-duty insulated rubber floor covering shall be provided	Yes _____ No _____
A/C. Chassis must have air conditioning	Yes _____ No _____
Unit shall have an adjustable telescoping and tilt steering wheel	Yes _____ No _____

SECTION 4 Instruments and controls

Instrument panel shall be of the wrap around type and have all necessary gauges grouped within clear view of the operator's position and shall include, but not be limited to:

One electric fuel gauge	Yes _____ No _____
Amp or volt-meter	Yes _____ No _____
Hour meter (shall run when the key is in the "on" position)	Yes _____ No _____
Speedometer, which is calibrated, to compensate for axle ratio and tire size	Yes _____ No _____
Oil pressure gauge	Yes _____ No _____
Transmission temperature gauge	Yes _____ No _____
Water temperature gauge	Yes _____ No _____
Air pressure gauge	Yes _____ No _____
Warning system which consists of lights and buzzer for low oil pressure, high water temperature, and low air pressure	Yes _____ No _____
Signal switch (self-cancel type)	Yes _____ No _____
2-valve parking brake system with indicator light	Yes _____ No _____
Dash mounted starter control	Yes _____ No _____
Standard or electronic tachometer	Yes _____ No _____

Brake application pressure gauge Yes _____ No _____

Turbo air pressure gauge Yes _____ No _____

SECTION 5 Frame

Cab to trunnion measurement shall meet packer body specifications Yes _____ No _____

Extra heavy duty to meet or exceed G.V.W 29.4 sm – R.B.M. of 3,000.000 in/lb. With reinforcements per rail. Reinforcements to be full length of frame. Heavy duty front bumper. Yes _____ No _____

SECTION 6 Tires

Two front tires shall be 315/80R 22.5 20 ply rating Bridgestone M 860 or equal Yes _____ No _____

Eight rear tires shall be 11R22.5 14 ply rating Bridgestone M 711 or equal Yes _____ No _____

SECTION 7 Wheels

All wheels shall be 10 hole steel disc, budd type Yes _____ No _____

SECTION 8 Rear Axle and Suspension

Unit shall have a Dana Spicer D46-170 or equal (46,000 lbs) Yes _____ No _____

Unit shall have a double driver controlled differential lock for rear axles at tandem two axle valve and light for driver controlled differential Yes _____ No _____

Unit shall have a rear axle ratio to allow the truck to have speeds of 65 mph Yes _____ No _____

Unit shall have a 1760 HD driveline Yes _____ No _____

Unit shall have an iron rear axle carrier housing Yes _____ No _____

Rear brakes shall be Dana Cam Q-Series 16.5 x 7 Yes _____ No _____

Rear brake lining shall be of the non-asbestos type Yes _____ No _____

Unit shall have outboard mounted cast iron brake drums Yes _____ No _____

Unit shall have air brake package automatic slack adjusters on brakes Yes _____ No _____

Suspension shall be a Hendrickson Haulmax HMX 460 54 in AS (minimum 46,000 lb.) rear suspension Yes _____ No _____

Must have a BW AD-IP brake line air dryer with heater or equal must have a petcock drain valve on the air tanks Yes _____ No _____

Unit must have a parking brake with yellow knob and have a permanent label on panel as to the function and direction of operation Yes _____ No _____

Unit must have two steel air reservoirs mounted inside of frame rails Yes _____ No _____

SECTION 9 Front Axle and Suspension

Unit shall have a Dana Spicer D1000F (20,000 lb. front axle) Yes _____ No _____

Bidder must state body length Number of feet: _____

Front brakes shall be Dana 16.5 x 6 Yes _____ No _____

Front brake lining shall be of the non-asbestos type Yes _____ No _____

Unit shall have Haldex auto slack adjusters – front Yes _____ No _____

Unit shall have Sheppard power steering or equal Yes _____ No _____

Unit shall have a Paccar power steering pump or equal Yes _____ No _____

Front suspension shall be Taper leaf Yes _____ No _____

Unit shall have front shock absorbers Yes _____ No _____

Unit shall have bronze bushing front suspension Yes _____ No _____

Unit shall have Comnet oil bath hubs Yes _____ No _____

Unit shall have mud flaps behind the front and rear wheels Yes _____ No _____

SECTION 10 Engine

Engine shall be a Cummings 1SX 11.9 Liter 320 H.P. engine

1250 torque Yes _____ No _____

Unit shall have engine mounted oil check and fill Yes _____ No _____

Unit shall have a minimum of (3) batteries capable of 2100 CCA cold cranking amps Yes _____ No _____

SECTION 14 Manuals

The following manuals must be provided:
Workshop Service manual. Maintenance manual. Driver's Operators' manual. Parts Techinical manual. Service Bulletins. Recall Bulletins. Field Service modifications. Yes _____ No _____

SECTION 15 General

WARRANTY AND SERVICE

STATE WARRANTY TERMS AND CONDITIONS INCLUDING THOSE OF OTHER MANUFACTURERS, SUPPLIERS. (Warranty period will begin after acceptance by the City – not upon delivery.)

Truck Chassis:

Engine:

Transmission:

Warranty period will begin after acceptance by the City – not upon delivery.

SECTION 16 Delivery

The completed unit with body mounted to be delivered to City shop complex Colstrip, MT Yes _____ No _____

SECTION 18 User's List of Truck Chassis Bid

Bidder to supply a list of users of the current model of the unit bid with address and telephone number:

NAME ADDRESS TELEPHONE

Tomorrow's Town... Today!

Bid Specifications
Automated Side Loader 27 Yard Refuse Compactor

INTENT:

These specifications describe a refuse collection body equipped with a mechanical device designed to handle 96 and 300 gallon plastic refuse containers. The body shall be capable of compacting and transporting refuse to a landfill or transfer station and dumping the load by means of hydraulically ejecting the refuse from the body.

GENERAL TERMS:

All equipment furnished under this contract shall be new, unused and the same as the manufacturer's current production model. Accessories not specifically mentioned herein, but necessary to furnish a complete unit ready for use, shall also be included. Unit shall conform to the best practice known to the body trade in design, quality of material and workmanship. Assemblies and component parts shall be standard and interchangeable throughout the entire quantity of the units as specified in this invitation to bid. The equipment furnished shall conform to current ANSI Safety Standard Z 245.1

The bidder shall complete every space in the Bidders Proposal column with a check mark to indicate if the item being bid is exactly as specified. If any check marks are placed in the "NO" column, a detailed and complete description of the deviation from specification must be supplied on a separate sheet labeled, "Deviations from Specifications".

A. BODY CAPACITY	**Exactly as Specified**
1. The body shall be brake-form radiuses "Chiseled" rounded to permit a maximum capacity.	Yes_____ No _____
2. The minimum capacity of the body including tailgate shall be, excluding hopper area: **27 cu. yd.**	Yes _____ No_____
3. The hopper capacity shall be: **4 cu. yd.**	Yes _____ No _____

B. BODY DIMENSIONS

1. The inside hopper width at front shall be: **70"**	Yes _____ No _____

2. The inside body width at rear shall be: **90”** Yes _____ No _____

3. The outside body width shall be: **96”** (Across rear post) Yes _____ No _____

4. The outside body width shall be: **98”** (Fenders) Yes _____ No _____

5. The outside body width shall be: **101”** (Hose guards) Yes _____ No _____

6. The outside body height above chassis frame shall be: **98”** Yes _____ No _____

7. The inside body height shall be: **89.81”** Yes _____ No _____

8. The overall body length including hopper shall be:

   27 cu. yd. Capacity Body – 258” Yes _____ No _____

9. The overall body length including hopper and lift arm shall be:

   27 cu. yd. Capacity Body – 278” Yes _____ No _____

C: BODY CONSTRUCTION:

1. The floor shall be flat Yes _____ No _____

2. The body floor thickness shall be: **3/16”** Yes _____ No _____

3. The body floor steel grade shall be: **AR400** Yes _____ No _____

4. The body floor yield strength shall be: **177,000 psi** Yes _____ No _____

5. The body long sills shall be: **6” @ 10.5 lb/ft structural channel** Yes _____ No _____

6. The body floor reinforcements shall be formed steel members Yes _____ No _____

7. The body floor reinforcements thickness shall be: **1/4"** Yes _____ No _____

8. The body floor reinforcements steel grade shall be: **ASTM A-715 GR 50** Yes _____ No _____

9. The body floor reinforcements yield strength shall be: **50,000 psi** Yes _____ No _____

10. The body sides and roof shall be brake-form radiuses “chiseled”, construction providing superior structural strength to weight ratio Yes _____ No _____

11. The body sides and one half of the roof panel shall be formed from a continuous high strength steel sheet Yes _____ No _____

12. The body sides and roof thickness shall be: **11 ga** Yes _____ No _____

13. The body sides and roof steel grade shall be: **ASTM A-715 GR 50** Yes _____ No _____

14. The body sides and roof yield strength shall be: **50,000 psi** Yes _____ No _____

15. Body bolsters shall be formed steel members rear only Yes _____ No _____

16. Formed steel hat section Yes _____ No _____

17. The body sides shall incorporate a steel fender rub rail Covering all rear wheels Yes _____ No _____

18. Steel fender rub rail thickness shall be: **11 ga** Yes _____ No _____

19. Steel fender rub rail steel grade shall be: **ASTM A-715 GR 50** Yes _____ No _____

20. The body shall include a rear underride guard as standard equipment to meet Federal Motor Carrier Safety Regulation (49CFR393.86) Safety Reg., 49CFR393.86, TTMA RP No 41-02, and SAE J682, Oct.84 Yes _____ No _____

21. The body shall have a wire harness with Deutsch IP 69K connectors between the body and the chassis and the body and the in-cab controls to isolate the body wiring from the rest of the unit Yes _____ No _____

22. Body shall have 2 rows of retention teeth installed at hopper end to prevent refuse fallback in hopper Yes _____ No _____

D. HOPPER CONSTRUCTION:

1. The hopper shall have a minimum static capacity of 4 cubic Yards Yes _____ No _____

2. The hopper shall have a minimum dynamic capacity (displacement rate) of 10.5 cubic yards per minute Yes _____ No _____

3. The hopper floor shall be flat Yes _____ No _____

4. The hopper floor shall be made of abrasion resistant steel Yes _____ No _____

5. The hopper floor steel grade shall be: **AR400** Yes _____ No _____

6. The hopper floor thickness shall be: **1/4"** Yes _____ No _____

7. The hopper floor yield strength shall be: **177,000 psi** Yes _____ No _____

8. The hopper side walls thickness shall be: **3/16”** Yes _____ No _____

9. The hopper side walls steel grade shall be: **AR400** Yes _____ No _____

10. The hopper side walls yield strength shall be: **177,000 psi** Yes _____ No _____

11. A hopper access door shall be provided above the packing panel on the streetside of the body to permit access into the hopper area Yes _____ No _____

12. The hopper access door shall be equipped with a safety interlock switch to disable all functions if the access door is opened Yes _____ No _____

13. The hopper access door thickness shall be: **11 ga** Yes _____ No _____

14. The hopper access door steel grade shall be: **ASTM A-715 GR 50** Yes _____ No _____

15. The hopper access door dimensions shall be: **28" x 32"** Yes _____ No _____

16. A hopper ladder with grab handles shall be located on the streetside of the hopper Yes _____ No _____

17. The hopper ladder shall be bolted on to the hopper Yes _____ No _____

18. The ladder must have an OSHA Standard 7" toe spacing between the ladder rung and the side of the hopper Yes _____ No _____

19. A transverse sump shall extend the full width of the front Yes _____ No _____

20. Two (2) sealed sump access 14" x 20" doors equipped with handles and quick acting over center toggle latches shall facilitate clean out of the sump Yes _____ No _____

21. A clean-out tool option shall be provided to facilitate easy removal of any accumulated debris from the hopper sump area Yes _____ No _____

22. A holder shall be provided on the body side to secure the clean out tool in a stored position Yes _____ No _____

23. The hopper shall have a solid metal single hopper cover Option to enclose the hopper during transport Yes _____ No _____

24. The hopper cover shall be opened/closed by a single Yes _____ No _____

25. The hopper cover must have an interlock eliminating the Yes _____ No _____

E. PACKING MECHANISM:

1.	The packing panel shall be 33” high providing 83,000 lbs of force	Yes _____ No _____
2.	The packer shall be a ram type design, integral with body	Yes _____ No _____
3.	The packing panel shall complete a pack cycle in a maximum of 12 seconds @ 1200 RPM	Yes _____ No _____
4.	Packing panel top steel grade shall be: **ASTM A-715 GR 50**	Yes _____ No _____
5.	Packing panel top thickness shall be: **1/4"**	Yes _____ No _____
6.	Packing panel top yield strength shall be: **50,000 psi**	Yes _____ No _____
7.	Packing panel face plate steel grade shall be: **ASTM A-715 GR 50**	Yes _____ No _____
8.	Packing panel face plate thickness shall be: **3/8”**	Yes _____ No _____
9.	Packing panel face plate yield strength shall be: **50,000 psi**	Yes _____ No _____
10.	Packing panel shall be reinforced with a combination of formed steel members for maximum rigidity	Yes _____ No _____
11.	The packing panel shall be guided by a single center floor “T” Rail	Yes _____ No _____
12.	The “T” Rail shall be fabricated from ½”, AR400 ultra high-strength, high abrasion resistant steel place	Yes _____ No _____
13.	“T” Rail dimensions shall be: **1/2” x 13 1/4"**	Yes _____ No _____
14.	Packing panel wear shoes steel grade shall be: **AR400**	Yes _____ No _____
15.	Packing panel wear shoes thickness shall be: **1/4"**	Yes _____ No _____
16.	Packing panel shall be operated by a single trunnion mounted double acting single stage cylinder	Yes _____ No _____
17.	Cylinder shall be centrally mounted above the hopper floor	Yes _____ No _____
18.	Cylinder bore diameter shall be: **6”**	Yes _____ No _____
19.	Cylinder rod diameter shall be: **4”**	Yes _____ No _____
20.	Cylinder rod shall be chrome plated	Yes _____ No _____
21.	Cylinder stroke shall be: **64”**	Yes _____ No _____

22. Maximum operation pressure shall be: **3000 psi** Yes _____ No _____

23. Inside width of packing ram shall be: **70”** Yes _____ No _____

24. Inside height of packing ram shall be: **33”** Yes _____ No _____

25. Packing panel stoke shall be: **52”** Yes _____ No _____

26. Packing panel swept volume shall be: **2 1/2 cu. yd** Yes _____ No _____

27. Packing panel ram cycle time shall be: **11 sec @ 1400 rpm** Yes _____ No _____

28. Packing panel shall include a two-piece hinged following panel to prevent refuse from falling behind the packing panel Yes _____ No _____

29. The following panel shall incorporate four (4) rollers made of reinforced nylon to reduce noise and wear Yes _____ No _____

30. Following panel top steel grade shall be: **ASTM A-715 GR 50** Yes _____ No _____

31. Following panel top thickness shall be: **3/16”** Yes _____ No _____

32. Following panel top yield strength shall be: **50,000 psi** Yes _____ No _____

F. BODY LIFTING/UNLOADING MECHANISM:

1. The body lift cylinders shall be outboard, side mounted for greater stability of the raised body Yes _____ No _____

2. Body shall be raised by two single acting telescopic cylinders Yes _____ No _____

3. Body hoist lift cylinders shall be: **27 cu. yd. Capacity Body - 2 stage with a stroke of 55”** Yes _____ No _____

4. Body lift cylinder bore diameter shall be: **5”** Yes _____ No _____

5. Body lift cylinders shall provide a dumping angle of approximately: **45 degrees** Yes _____ No _____

6. Two (2) Safety pops shall be supplied, one each side, to support the body in the raised position Yes _____ No _____

7. An interlock shall be provided to deactivate the body raise function if the lift arm mechanism is not in the stored home position Yes _____ No _____

8. An additional interlock shall be provided to deactivate lift arm function with the body in the raised/dump position Yes ____ No _____

G. TAILGATE:

1. The tailgate shall be hydraulically operated, top hinged bustle type — Yes _____ No _____
2. The tailgate shall automatically lock and unlock without the use of additional locking cylinders, cables or manual turnbuckles — Yes _____ No _____
3. Tailgate thickness shall be: **10 ga** — Yes _____ No _____
4. The tailgate steel shall be: **ASTM A-715 GR 50** — Yes _____ No _____
5. The tailgate yield strength shall be: **50,000 psi** — Yes _____ No _____
6. The tailgate shall be operated by 2 cylinders — Yes _____ No _____
7. Tailgate cylinders shall be chrome plated rod — Yes _____ No _____
8. Tailgate cylinder bore diameter shall be: **3”** — Yes _____ No _____
9. Tailgate cylinder rod diameter shall be: **1 1/2"** — Yes _____ No _____
10. Tailgate cylinder stroke shall be: **32”** — Yes _____ No _____
11. Tailgate cycle time at idle shall be: **30 sec** — Yes _____ No _____
12. A rubber seal shall be installed on the tailgate and extend across the entire bottom and vertically up each side a minimum of 24” — Yes _____ No _____
13. A cab mounted light and audible alarm shall be provided to indicate that the tailgate is unlocked — Yes _____ No _____
14. A manual control with guarded recessed switch shall be installed in the cab to guard against accidental activation — Yes _____ No _____
15. Tailgate maintenance safety props shall be provided — Yes _____ No _____
16. The tailgate shall have a wire harness with Deutsch IP 69K connectors between the body and the tailgate to isolate the tailgate wiring from the body — Yes _____ No _____
17. Remote Grease Line to lubrication points on tailgate, which allows greasing from ground level, shall be provided — Yes _____ No _____

H. AUTOMATED LIFTING MECHANISM:

1. The Lifting Arm mechanism shall be capable of operating simultaneously during any phase of packing operations — Yes _____ No _____

with full force and flow

2. The Lifting Arm mechanism must have a lifting capacity of 2,000 pounds at full extension — Yes _____ No _____

3. The Lifting Arm mechanism must be within the 96" road limit in the travel position with the grippers in the full lowered position — Yes _____ No _____

4. No potion of the lift mechanism shall have less than 13 inches of ground clearance in the stowed position — Yes _____ No _____

5. Lift Arm extension from the side of the body must be horizontal in a linear fashion. No swinging or arching of the lift arm is permitted — Yes _____ No _____

6. Lift Arm mechanism shall have a reach of 86" from the side of the body to the centerline of a 90-gallon container — Yes _____ No _____

7. Lift Arm mechanism shall be capable of grasping a container located 6" from the 96" wide envelope of the body — Yes _____ No _____

8. Vertical dump height shall not exceed 120" above truck frame while dumping a 90-gallon container — Yes _____ No _____

9. Container dump angle shall be a minimum of 45 degrees to insure complete dumping of container's contents — Yes _____ No _____

10. Lifting mechanism shall be capable of a complete cycle, which includes Grip-Lift-Dump-Undump-Lower and Ungrip in a maximum of 8 seconds — Yes _____ No _____

11. The Lifting Arm must be constructed utilizing an Inner and Outer Arm assembly — Yes _____ No _____

12. The Outer Arm assembly shall be a fabricated rectangular box construction 16" x 8" structural tube — Yes _____ No _____

13. The Inner Arm assembly shall be fabricated rectangular box construction 8" x 6" structural tube — Yes _____ No _____

14. The Inner Arm assembly shall include AR400 roller wear strips — Yes _____ No _____

15. The roller wear stripes yield strength shall be: **177,000 psi** — Yes _____ No _____

16. The inner am assembly shall glide in and out on five (5) 4" dia. steel roller bearings — Yes _____ No _____

17. Roller bearings shall rotate on adjustable eccentric shafts — Yes _____ No _____

18. Inner and Outer Arm pivots shall be 2" C1045 turngound and polished, heat-treated pivot pins held with 2" self-aligning spherical bearings — Yes _____ No _____

19. Five (5) solid=state proximity switches shall be used as input sensors for the PLC for proper arm sequencing — Yes _____ No _____

20. Lift Arm must have a safety interlock to restrict dumping unless the container is positioned over the hopper opening — Yes _____ No _____

21. Lift Arm hydraulics shall be controlled by 4 sections of a 6-spool sectional valve equipped with air actuators for spool positioning — Yes _____ No _____

22. The Lifting Arm must utilize four (4) hydraulic cylinders — Yes _____ No _____

23. Cylinders shall include:

	Yes	No
Reach (In-Out) 2" bore x 66" stroke	_____	_____
Lift (Arm Up-Down) 2 ½" bore x 26" stroke	_____	_____
Dump (Cart Dump/Undump) 2 ½" x 10" stroke	_____	_____
Grab (Grip/Release) 2 ½" bore 7 ½" stroke	_____	_____

24. Standard joystick lift function controls shall be electric over air over hydraulic type with an on-off rocker switch for the control of the gripper located on the top of joystick — Yes _____ No _____

25. Unit shall be equipped with one touch arm control option which allows operator to hold joystick in one position after grasping container and will allow automatic dump cycle of arm and replacement of container in area it was grasped — Yes _____ No _____

26. No air lines shall be routed into the cab from the body — Yes _____ No _____

27. Joystick shall be conveniently located to the left of the operator — Yes _____ No _____

28. An ergonomically designed padded armrest shall be provided to support the operator's arm during joystick operation — Yes _____ No _____

29. Additional controls shall consist of a three (3) rocker switch console located on the right hand window sill to allow activation by the operator's right hand and a three (3) rocker switch console with dead-man control located at the side of the operator's seat to be activated if the operator is standing outside of the cab — Yes _____ No _____

30. An Automated Dump Cycle "Coordinator" option shall be provided — Yes _____ No _____

31. "Coordinator" shall allow the operator to manually reach and — Yes _____ No _____

grip a container, continued contact on the grip switch shall cause the container to be raised, dumped, returned to the side of the vehicle, ungripped and the arm returned to the stowed/ home position

I: GRIPPER:

Universal Steel Grippers 64-300 Gallon Containers

1. Grip/Release shall be actuated by a single hydraulic cylinder Yes _____ No _____
2. Gripper mechanism shall incorporate an adjustable hydraulic circuit limiting radial force applied to the container Yes _____ No _____
3. Gripper shall be capable of handling 64-300 gallon containers designed for automated collection Yes _____ No _____
4. Grippers shall be fabricated from one-piece spring steel gripper am and shall pivot on adjustable tapered roller bearings Yes _____ No _____
5. Grippers shall have UHMW polyethylene rollers a the tip Yes _____ No _____

J. CONTROLS:

1. An easily accessible control panel shall be provided in the Yes _____ No _____
2. The control panel must be a programmable logic system "PLC" with software adjustability Yes _____ No _____
3. The control panel must display diagnostic information in Alpha-numeric (written work readout) format. Yes _____ No _____
4. Control panel must provide a diagnostic display for each input and output signal Yes _____ No _____
5. The PLC must include the following safety options, complete with audible and visual warnings

	Yes	No
Hydraulic Filter By-Pass Warning – Shu Down System	_____	_____
Low Oil Warning – Shut Down System	_____	_____
High Temperature Hydraulic Fluid Warning – Shut Down System	_____	_____

6. The PLC display must include the following unit history data:

	Yes	No
Hour meter for pump operation/PTO engagement	_____	_____
Permanent counters for pack, eject and arm cycles	_____	_____
Resettable counters for pack and arm cycles	_____	_____

7. The control panel must include both an ON/OFF rocker switch for system function AND an Emergency STOP button — Yes _____ No _____

8. The control panel shall utilize rocker switches for all controls not related to arm function — Yes _____ No _____

9. The control panel shall provide guarded switches to raise/lower tailgate and to raise/lower body — Yes _____ No _____

10. The control panel shall include visual and audible warnings for:

    Tailgate Open/Unlocked — Yes _____ No _____
    Arm/Gripper Extended — Yes _____ No _____
    Body Raised — Yes _____ No _____

11. The control panel must provide operator selectable packing controls — Yes _____ No _____

12. Operator selectable packing controls shall consist of:

    Manual – Requires Operator to Control Packing Cycle — Yes _____ No _____
    Cycle 1 – Automatically activates one complete packing Cycle after one container is dumped — Yes _____ No _____
    Cycle 2 – Automatically activates one complete packing Cycle after two containers are dumped — Yes _____ No _____
    2X – Automatically activates two complete packing cycles after one container is dumped — Yes _____ No _____
    3X – Automatically activates three complete packing cycles after one container is dumped — Yes _____ No _____

13. The control panel shall include a red "Power Packing" indicator light to illuminate when the packer is in maximum compaction power mode — Yes _____ No _____

K. HYDRAULIC SYSTEM:

1. A tandem vane low RPM pump shall be utilized — Yes _____ No _____

2. The hydraulic pump shall be front mount driven by engine crankshaft. (Note minimum of 300 H.P. Engine Req'd) — Yes _____ No _____

3. The tandem pump shall be equipped with low limiting valves rated at 21 GPM for e lift arm mechanism and 50 max GPM for the packing panel — Yes _____ No _____

4. The hydraulic system shall include hydraulic over-speed protection to limit the maximum pump output at all engine RPM ranges — Yes _____ No _____

5. Hydraulic reservoir shall be minimum of 70-gallon capacity for maximum cooling efficiency — Yes _____ No _____

6. Hydraulic reservoir shall be equipped with a fluid level sight glass — Yes _____ No _____

7. Hydraulic reservoir shall be equipped with a temperature gauge — Yes _____ No _____

8. Hydraulic reservoir shall be located streetside on chassis frame Rail adjacent to hopper — Yes _____ No _____

9. The hydraulic system shall incorporate a full flow 10-micron absolute in-tank return line filter with replaceable element — Yes _____ No _____

10. All hydraulic fittings shall be JIC or O-Ring Boss — Yes _____ No _____

11. All hydraulic components shall be adequately sized and designed to maintain appropriate hydraulic oil temperature — Yes _____ No _____

12. Maximum hydraulic system pressure for the lift arm and pack circuits shall be 2500 psi — Yes _____ No _____

L. LIGHTS:

1. LED stop, turn, tail and rear strobe lights shall be provided In accordance with Montana State and Federal Regulations — Yes _____ No _____

2. An upper bolt on light bar shall be provided. Upper light — Yes _____ No _____

3. Lower light bar shall contain two (2) of each 4" diameter stop/tail/turn AND reverse lights — Yes _____ No _____

4. All lights shall be sealed, lexan covers and have flexible gasket mounting — Yes _____ No _____

5. Mid-body turn signals shall be provided — Yes _____ No _____

6. Two (2) work lights shall be provided operated by a single rocker switch on the in-cab control panel, one (1) light shall illuminate he hopper and one (1) light shall illuminate the lift arm area — Yes _____ No _____

M. ELECTRICAL:

1. All electrical wiring shall be in protected looms — Yes _____ No _____

2. All wiring harnesses shall be Deutsch automotive type connectors meeting IP67 waterproof specification — Yes _____ No _____

3. The electrical system shall not have junction boxes or terminations that do not use the IP67 specification connectors — Yes _____ No _____

4. All circuits shall be properly fused and wiring shall be color coded and numbered — Yes _____ No _____

N. PAINTING:

1. The entire unit shall be properly cleaned of all dirt, grease and and weld slag prior to painting — Yes _____ No _____

2. The complete unit shall be painted with two (2) coats of polyurethane high solids to a minimum of 4 mils — Yes _____ No _____

3. The body shall be painted one color (**specify)** _____

O. MANUALS:

1. One complete set of operators, parts and service manuals to be supplied for each refuse packer — Yes _____ No _____

P. WARRANTY:

1. The bidder shall offer a one (1) year warranty against defective material or workmanship — Yes _____ No _____

Q. ADDITIONAL:

1. Dual Safety Vision LCD Camera System with in cab monitor installed with 1 camera located on tailgate and 1 in hopper — Yes _____ No _____

Tomorrow's Town... Today!

Trade Unit Information Sheet

STYLE	Side Load
PACKER MAKE	Curbtender Tip To Dump
PACKER SIZE	20 Yard
YEAR/MAKE	2007 Freightliner Condor
# OF AXLES	Single Axle
VEHICLE ID	5SXAADC87RY49133
CURRENT METER	63,567
ENGINE	Cat C7 Wax56548
TRANSMISSION	Allison Automatic 3000 RDS 65,10681140 4th Generation
	Meritor RSB185
REAR AXLE	Mfs20133a
FRONT AXLE	315/80r22.5
FRONT TIRES	11r22.5
REAR TIRES	Cab Over
GENERAL	Cab and Body Fair Condition

Tomorrow's Town... Today!

Optional Warranty Information Sheet

In addition to the warranty specified earlier, bidder shall show prices to purchase extended parts and labor warranties as follows:

	Transmission	Engine	Other	Other
Full 2 Year	$_____	$_____	$_____	$_____
Full 3 Year	$_____	$_____	$_____	$_____
Full 4 Year	$_____	$_____	$_____	$_____
Full 5 Year	$_____	$_____	$_____	$_____

Tomorrow's Town... Today!

Bidder's Proposal

Name of Bidder _____

Address _____

_____

Phone_____

Bidder proposes and agrees to furnish the City of Colstrip, Montana **One (1) 27 CUBIC YARD AUTOMATED BODY AND TRUCK CHASSIS** at the following price:

TOTAL PRICE: $_____

MINUS TRADE IN

One (1) 2007 20 CUBIC YARD BODY AND TRUCK CHASSIS at the following trade in allowance:

TRADE IN ALLOWANCE: $_____

NET PRICE TO THE CITY

TOTAL PRICE: $_____

The "Notice to Bidders", the "Instruction to Bidders", the "Detailed Specifications of One (1) 27 cubic yard automated body and truck chassis" and the "Bidders Proposal" are made part of this contract as if written herein at length. The **27 cubic yard automated body** shall be mounted on a truck chassis and shall be delivered F.O.B. Colstrip City Hall, 12 Cherry Street, Colstrip, MT 59323 within _____ calendar days after date of awarding the contract.

The Bidder further agrees and states that they have read the “Notice to Bidders” and “Instructions to Bidders” and has studied the “Detailed Specifications for One (1) 27 Cubic Yard Automated Body and Truck Chassis”, and that he/she is familiar with the terms and conditions stipulated therein.

_____

Name of Company - Bidder

_____

Authorized Signature & Title

_____

Date

Bidder must fill in all spaces provided above