



CITY OF MANCHESTER
Public Works Department
Purchasing Division
475 Valley Street, Manchester NH 03103
(603) 624-6444

BID INVITATION

Sealed bids will be received at the Public Works Department, 475 Valley Street, Manchester, New Hampshire, before or at **2:30 PM** prevailing time of the **10th** day of **August, 2016** for the following items:

Two (2) High Compaction Rear Loader Refuse Packers FY17 - 230-11

Bid Invitations and specifications will be available at the Public Works Department, 475 Valley Street, Manchester, NH or online at:

<http://www.manchesternh.gov/bids>

Questions regarding this request should be directed to Mrs. Mindy Salomone-Abood, Purchasing Agent via email at Purchasing@manchesternh.gov no later than 3:00 PM August 3, 2016.

The Public Works Director reserves the right to waive any irregularities, reject any or all bids, and to accept the bid that appears to be in the best interest of the City. Failure to submit all information called for may be sufficient for disqualification.

Kevin A. Sheppard, P.E.
Public Works Director

GENERAL:

1. Bids will be received by the City of Manchester, New Hampshire at the place and until the time specified in the Invitation to Bid and then publicly read aloud for the information of Bidders and others properly interested who may be present either in person or by representative. **NO BIDS WILL BE ACCEPTED AFTER TIME AND DATE SPECIFIED.**
2. The following meanings are attached to the defined works when used in this document:
 - a. The word "**City**" means City of Manchester, New Hampshire.
 - b. The word "**Bidder**" means the person, firm, or corporation submitting a bid on these specifications or any part thereof.
 - c. The word "**Contractor**" means the person, firm, or corporation with whom the Contract is being made by carrying out the provisions of this Sealed Bid Invitation and the Contract.
 - d. The words "**firm price**" shall mean a guarantee against price increase during the life of the Contract.
3. Strict compliance with the requirements of the Invitation to Bid, terms and conditions, and the instructions printed is necessary. All blank spaces must be filled in. Any changes and/or corrections shall be marked in red and initialed by the person making such corrections. Signatures of the responsible owner/representative of the firm must be in ink. No reproductions/duplications/copies will be accepted.
4. Each bid must give the full business address of Bidder and be signed by him with his usual signature. Bids by partnerships must furnish the full names of all partners and must be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and title of the person signing. Bids by corporations must be signed with the legal name of the corporation, followed by the state of incorporation and by the signature and title of president, secretary, or other person authorized to bind it in the matter. The name of each person signing shall also be typed or printed below the signature. A bid by a person who affixes to his signature the word "president", "secretary", "agent", or other title without disclosing his principal may be held to be the bid of the individual signing. When requested by the City, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished.

5. Bids must be securely sealed in a suitable envelope (facsimile and emailed submissions will not be accepted), name of vendor written in the top left corner of envelope, addressed and marked on the outside as follows:

FY17-230-11, PACKERS

The entire solicitation document is to be returned when submitting a proposal, unless otherwise directed by the solicitation document. Failure to return all pages may result in a determination that the submittal is non-responsive.

PLEASE NOTE: THE CITY OF MANCHESTER IS NOT RESPONSIBLE FOR BIDS NOT PROPERLY MARKED.

6. It will be the responsibility of the Bidder to see that their bid is received by the Purchasing Division as specified.
7. Each bid is received with the understanding that the acceptance in writing via email by the City of the Bidder to furnish any or all of the products/services described therein or as otherwise negotiated, shall constitute a contract between the Bidder (Contractor) and the City, which shall bind the Bidder (Contractor) on his part to furnish and deliver the articles offered at the prices agreed upon and in accordance with the terms and conditions of said accepted bid; and the City on its part to order from such Bidder (Contractor), except for causes beyond reasonable control; and pay for, at the agreed prices, all products/services specified and delivered.
8. Bids may be withdrawn upon written or electronic request received from Bidders prior to the time affixed for opening. Negligence on the part of the Bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.
9. The solicitation document maintained by the Purchasing Division, in the appropriate file folder, shall be considered the official copy. In the case of any inconsistency between bid documents submitted to the City, but not clearly listed on the exception page of the document or as an exception by the Bidder, the language of the official copy shall prevail. Furthermore, any exception or changes to the specifications made by the Bidder may be cause to disqualify your bid.
10. No oral interpretations will be made to any Bidder as to the meaning of the specifications or terms and conditions of this Sealed Bid Invitation. Every request for such interpretation or request for a change in the specifications or terms and conditions shall be made in writing and forwarded to:

Email: Purchasing@manchesternh.gov

Subject: Refuse Packer

Questions must be received no later than 3:00 PM August 3, 2016. Questions received after that time will not be answered. Answers will be posted by 5:00 PM on Monday, August 8th.

Every interpretation made to a Bidder will be in the form of an addendum to the Sealed Bid Invitation which, if issued, will then be posted on the website: www.manchesternh.gov/bids all such addenda shall become a part of the complete Sealed Bid Invitation. It is the Bidder's responsibility to check the website prior to the submittal deadline to ensure that the Bidder has a complete, up-to-date bid package.

11. Bids that are incomplete, not properly endorsed or signed, or otherwise contrary to these instructions may be rejected as informal by the City. The Bid must be filled out completely and accurately. Please explain in detail any exceptions or deviations taken on this bid. Separate pages may be used if necessary.
12. Bids must be submitted on the Bid Schedule hereinafter provided. Prices shall be clearly and fully stated in units of quantities specified. No additional charges shall be passed to the City, including any applicable taxes, delivery or surcharges that have not already been disclosed on the bid schedule. In case of discrepancy in computing the amount of the bid, the unit prices quoted will govern.
13. **Quotations should include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the Bidder, prices quoted will be considered as being based on delivery to the destination designated, including any and all freight and packing charges.**
14. As the City is exempt from the payment of federal excise taxes, all prices quoted herein are not to include these taxes.
15. Prices stated shall remain **firm** for the duration of the contract.
16. Should the successful Contractor fail to make delivery or complete the contract within time specified, the City reserves the right to procure the equipment/vehicle from other sources, and hold the Contractor liable for excess cost.
17. The City reserves the right to postpone the delivery date to allow for any change in operating conditions or for any other cause not now foreseen. In the event the City elects to exercise this right, all prices quoted pursuant to this Sealed Bid Invitation will remain firm, and the City shall incur no additional obligation to the Contractor on account of any delay of delivery date ordered by the City.

18. It is agreed that deliveries and/or completion are subject to strikes, lockouts, accidents, and acts of God.
19. The City reserves the right to divert delivery from one location to another, and to allow for any change in operation conditions or for any other cause not now foreseen.
20. Any equipment/vehicle delivered must be standard new and unused, latest model, except as otherwise specifically stated in the proposal. Where any part or the normal accessories of equipment/product is not described, it shall be understood that all equipment/product and accessories that are usually provided in the manufacturer's stock model shall be furnished.
21. Unless otherwise stated by the Bidder, the proposal will be considered as being in strict accordance with the specifications outlined in this Sealed Bid Invitation. References to a particular trade name, manufacturer's catalogue, or model number, are made for descriptive purposes to guide the Bidder in interpreting the requirements of the City. They should not be construed as excluding proposals on other types of materials, equipment and supplies. However, the Bidder, if awarded a Contract, will be required to furnish the particular item referred to in the specifications or descriptions unless a departure or substitution is clearly noted and described in the proposal.
22. The apparent silence of these specifications and any supplemental specifications as to any detail or the omission from the specifications of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and correct type, size and design are to be used. All interpretations of these specifications shall be made on the basis of this statement.
23. The equipment/vehicle on which bids are submitted must be of such character, quality and/or performance equivalence that it will serve as that specified. In submitted bids on products/services other than as specified, proposer shall furnish complete data and identification with respect to the alternate products/services they propose to furnish.

Consideration will be given to bidders submitted on alternate products/services to the extent that such action is deemed to serve the best interests of the City. If the bidder does not indicate that the products/services he proposes to furnish is other than specified, it will be construed to mean that the bidder will furnish the exact products/services described.
24. The City reserves the right to waive any informality in bids, to reject any and all bids wholly or in part, and to make awards in a manner deemed in the best interest of the City.
25. Awards will be made in the best interest of the City. In determining what would be in the best interest of the City, the following shall be considered:

- a. The ability, capacity, and skill of the Bidder to perform the Contract or provide the service required;
 - b. Whether the Bidder can perform the Contract or provide the service promptly or within the time specified, without delay or interference;
 - c. The character, integrity, reputation, judgment, experience, and efficiency of the Bidder;
 - d. The quality of performance of previous contracts or services;
 - e. The previous and existing compliance by the Bidder with laws and ordinances relating to the Contract or service;
 - f. The quality, availability, and adaptability of supplies or contractual services to the particular use required;
 - g. to the "lowest responsible bidder" quoting the lowest net price in accordance with specifications;
 - h. The number or scope of conditions attached to this bid.
26. The City reserves the right to make awards on this proposal by item or to accept all or part of the proposal or prices quoted. In addition, the City reserves the right to award materials on the basis of the lowest total cost of the bid item to the City, including the City's cost of transportation to and from the source.
- In cases where two or more Bidders have the same net bid, the City may give preference to firms located within the City.
27. Upon making an award, or giving notice of intent to award, the City will place appropriate notice on the Purchasing website: www.manchesternh.gov/bids.
28. The Bidder must certify that no official or employee of the City or State of New Hampshire, has a pecuniary interest in the proposal or in the Contract that the Bidder offers to execute or in the expected profits to arise there from, and that this bid is made in good faith without fraud, collusion or in connection with any other person submitting a proposal.
29. The Bidder, if awarded an order or contract, agrees to protect, defend and hold the City harmless against any demand for the use of any patented material, process, article or device that may enter into the manufacture, construction or form a part of the work covered by either order or contract.
30. The Bidder, if awarded an order or contract, agrees to defend, indemnify, and hold harmless the City from all damages to life and property arising out of the performance of

this Contract due to the Bidder's negligence, that of his employees, subcontractors, etc., or due to the negligence of the City, its employees, representatives, agents, etc.

31. The Revised Statutes Annotated of the State of New Hampshire, the Charter of the City, and all City Ordinances insofar as they apply to the laws of competitive bidding, contracts and purchases are made a part hereof.
32. The Bidder to whom a contract is awarded guarantees to the City that all items furnished under this contract shall be free of defects in design, materials and workmanship for a period of one (1) year after final inspection and acceptance. The Contractor shall replace promptly any defective equipment, materials and/or workmanship required without additional cost to the City.
33. The Bidder to whom a contract is awarded guarantees to the City that all warrants of merchantability and fitness for a particular purpose as provided for in New Hampshire 382A-2-314 and 2-314 shall remain in force and will not be disclaimed.
34. The Bidder, if awarded an order or contract, agrees to provide to the City proof of Federal Identification Number (IRS Code Section 6723). Acceptable forms of documentation are a copy of a federal tax depository ticket, copy of IRS label showing name and Federal ID Number, IRS letter of taxpayer Identification Number assigned, other correspondence from the IRS with both individual/business name and Federal Identification or stationery/bills with Federal ID Number (and firm name and address) **PREPRINTED** on it. Any impertinent information may be blackened out before sending to the City. Copies of tax returns must show taxpayer section and signature.
35. Any vendor who receives an order or orders resulting from this invitation agrees to submit a Material Safety Data Sheet (MSDS) for each toxic or hazardous substance or mixture containing such substance pursuant to RSA 277-A when deliveries are made. The vendor agrees to deliver all containers properly labeled pursuant to RSA 277-A. Failure to submit an MSDS and/or label on each container will place the vendor in noncompliance with the purchase order. Failure to submit MSDS and/or labels on each container may result in civil or criminal penalties, including bid debarment and action to prevent the vendors furnishing substances or mixtures. Vendors are cautioned to obtain and read the law referenced above.
36. Payment Terms:
 - a. Delivery and Acceptance: Upon delivery and acceptance of the equipment/vehicle by the department to which it is assigned, the Contractor shall secure the signature of an authorized representative on an original delivery slip and shall provide two (2) copies of an invoice or bill of sale.
 - b. Payments: Payments shall be made within 15-45 days of delivery and acceptance of contracted item(s)/services or upon receipt of a verified claim for payment, whichever is later. The claim for payment consists of the original delivery slip and two (2) copies of the invoice/bill of sale executed as provided for in the

paragraph above.

- c. Payment can also be made by City departments via credit card or EFT payments. If either method is chosen by Contractor/Department, no additional charges will be assessed to the City.
37. Certificate of Origin: must be properly assigned to the:

City of Manchester
480 Hayward Street
Manchester, New Hampshire 03103

**FAILURE TO COMPLY WITH THESE REQUIREMENTS COULD RESULT IN THE
CANCELLATION OF AN ORDER OR CONTRACT**

SPECIFICATIONS

The City of Manchester is hereby requesting firm pricing for a two (2) high compaction rear loading refuse packer

PURPOSE:

The purpose of this bid invitation is to obtain two (2) rear loading 25 cu yard refuse collectors for collecting solid waste in Manchester, NH.

It is the intent of these specifications/requirements to describe the City's minimum requirements for the vehicle.

GENERAL:

Bid prices shall remain firm for the duration of the contract. The City reserves the right to terminate the contract entered into as a result of this bid if goods and services are at any time deemed to be unsatisfactory.

All vehicles must be new; shall not be used, rebuilt, refurbished and shall not have been used as demonstration vehicles. At initial delivery of the vehicle odometer shall not exceed 200 miles.

Vehicles must meet all Federal and State equipment and safety requirements. All shall be equipped with manufacturer's standard features unless otherwise specified in the detailed specifications.

Optional and standard equipment ordered shall be installed and ready for use, unless otherwise specified.

DELIVERY:

The completed unit shall be delivered to the Manchester Central Fleet Management Department. Vendor will be responsible for any and all delivery charges.

Preparation for delivery:

- Manufacturer's bill of material's (truck specification list) must accompany the vehicle.
- The cooling system of the vehicle is to be protected with permanent type antifreeze to a temperature of at least 34 degrees below zero.
- Vehicles must be delivered with all equipment in place, cleaned, lubricated, serviced and ready for operations. Dealer advertising or logos are not to be displayed on the vehicle.
- A signed copy of the certificate of origin must accompany the vehicle.

PAYMENT:

Payment will be made in accordance with the City of Manchester Ordinances and procedures set forth within this document, item 36 Payment terms

INSPECTION:

The vehicles must be inspected and approved by Central Fleet Management Department officials prior to acceptance/payment.

EXCEPTIONS/DEVIATIONS:

If the Bidder has any exceptions or deviations please submit those on your own letterhead and check the box on page 25.

SUBMITTAL:

Bidders must submit the following:

- Pages **10 - 25**.
- Descriptive picture literature with detailed specification on products bidding.

CHASSIS:

	Comply		Comments
	Yes	No	
Model: Mack (GU803) chassis with 232 inch wheel base and 166 inch CA or approved equivalent.			
GVW rating: 66,000 lbs.			
Fuel: City of Manchester uses a biodiesel 20% (B20) blend. Vehicles where a diesel engine is requested must be able to handle B20 – NO SUBSTITUTION.			
Engine: Mack MP7-365C 365 hp @ 1450-1700 Lb-ft @ 1100-1300 rpm. The engine will meet current EPA regulations.			
Air Compressor Meritor/Wabco 318 18.7 CFM.			
Alternator 12V 240 amp, high output alternator with remote sensing.			
Batteries – 3 Group 31. Each with a minimum of 900 CCA.			
Engine brake.			
The engine will have a 120 volt, 1500 amp block heater.			
Radiator and heater hoses will be silicone.			
Coolant will be set to – 34 degrees Fahrenheit			
Transmission: Allison 4500 RDS 6-speed (4.70/0.67) automatic:			
Auto neutral when parking brake is applied,			

<p>integral oil level sensor and TES 295 approved synthetic fluid. Direct Mount Oil Cooler, External Oil Cooler, Internal Filter and Oil Level Sensor.</p>			
<p>Front Axle: Mack FXL20 20,000 lb capacity. 20,000 lb tapered spring suspension with shock absorbers. Static Load Cushions. Steering – M100P Plus Right Side Assist Cylinder.</p>			
<p>Rear axle: Mack 46,000 lb capacity. Mack camelback suspension 46,000 lb capacity, 5.04 ratio. Bogies – 38,000 – 52,000 lb. capacity. Carrier – CRDP150/151. Rear Wheel Seals. Suspension – Mack Multileaf. Transverse Torque Rod (Rear Axle Only). Trunion Bushing.</p>			
<p>Driveline: Main Meritor 18 MXL. Interaxle: Driveline: Meritor 18 MXL.</p>			
<p>Brakes: Bendix ADIP dryer located on outside of frame, Power ABS, all wheel air brakes, cam and compressor capacity 13 cubic feet per minute, automatic slack adjusters front and rear; anchorlock parking brake or equivalent, sealed long stroke cylinders with stainless steel pins, Dust shields all wheels.</p> <p>Front brakes: Brakes – Bendix “S” Cam 16.5" x 6" Cast Spider Brake Drums Cast Outboard Mounted Slack adjuster – Haldex Automatic</p> <p>Rear brakes: Spring Brake Chambers – (4) 30/30 Double Diaphragm Type/Mechanical Spring Release Brakes – Bendix “S” Cam 16.5" x 8" Cast Spider Brake Drums Cast Outboard Mounted Slack Adjuster Haldex automatic Dust shields</p>			
<p>Tires: Front – 315/80R22.5 Michelin XZUS2, 20 ply</p>			

Rear - 315/80R22.5 Michelin XZUS2, 20 ply			
Wheels: 10 hole hub piloted Front: aluminum disk			
Fuel Tank: 70 gallon, RH, Aluminum			
Frame: 13.375" x 3.25" x .375", 2,818,800 RBM in-lbs/rail with ¼" liner			
Electrical: 12 Volt Electrical System Backup Alarm – Preco Model 1059 Battery Box – Painted Steel w/Locking Tab Daytime Running Lights Electric Circuit Protection Package Waterproof Electrical Connections Body Link II Headlights – (2) Single Round Halogen Lamps Rear Lighting Single Flasher, Kysor			
Studs in the vicinity of the battery box to be used in for jump starting the truck.			
Provisions for CB radio mounting; reinforcement in header console.			
Power leads for CB radio mounting			
CB radio mounting reinforcement in the header console.			

CAB

	Comply		Comments
	Yes	No	
<p>Exterior: Cab noise suppression on inside of firewall and engine compartment.</p> <p>Keyed alike locks.</p> <p>Cab shall be mounted using an air suspension system.</p> <p>Wiper forced to intermittent when parking brake is applied.</p> <p>Driver and passenger door operating vent windows or factory installed vent shades. Additional front directional turn signals to be installed above wheel wells.</p>			

<p>Inner wheel well splash guards.</p> <p>Exterior Mirrors – LH and RH Motorized w/Heated.</p> <p>Color: Clear coat Omaha orange (same color as Dupont Dulux 93-082).</p>			
<p>Interior:</p> <p>Left hand drive. Cab shall be configured to seat 3 man crew.</p> <p>Driver’s seat shall have air ride, Bostrom Talladega 915 Mid-Back with Black Dupont covering.</p> <p>Riders’ seat shall be non-suspension and shall have 2 seat belts.</p> <p>Radio AM/FM/CD with weather band. Radio must have speaker in rear of truck for crew loading refuse. Radio system must have two volume controls ones for the cab and one for speakers in the rear of the truck</p> <p>Factory installed heating/defroster/air conditioning system.</p> <p>Dome Lights – 2 w/Self-contained switch.</p> <p>Heater w/Integral Defroster.</p> <p>Horn air – (1) single trumpet if mounted under the cab must have a snow shield. Horn electric single tone w/Snow Shield</p> <p>Interior Sun Visors Both Sides.</p> <p>Identification and Clearance Lights (7).</p> <p>Steering Column, Adjustable tilt telescope.</p> <p>Doors – Grab Handles, Aluminum RH & LH beside door. Mud Flaps – 12" Front Fender Mounted.</p>			

Rear Window, Fixed. Safety Tinted Windshield w/Non-Tinted Side and Rear Windows (if equipped). Windshield Wipers – Electric Motor w/Intermittent Feature.			
Instrument controls: speedometer, tachometer, ammeter/volt-meter, fuel gage, oil pressure gage, engine temperature gage, air pressure gage with low pressure warning and all necessary electrical switches, Also to include an hour meter actuated by engine operations, Dash mounted air restriction indicator. Lighting: daytime running, pre-trip inspection light test Mirrors: minimum of left and right 6 inch by 15 inches extending to 102 inches with 7 inch convex, heated.			

COLLECTION BODY:

The body shall be furnished complete in every detail and be of such design and construction as to meet the general and special requirements hereinafter set forth. Any parts or units not specifically mentioned, but are necessary to form a complete working unit, shall be furnished by the successful bidder.

It is the intent of this specification to describe a hydraulically actuated refuse packer body with the following minimum specifications considered necessary to perform the work assigned, and will be the product of a manufacturer actively engaged in the production of refuse collection equipment, and will embody their latest improvements in design and construction. The body's construction and specifications shall be in compliance with the applicable standards as promulgated by the American National Standards Institute.

All ratings shall conform to SAE and DOT standards. This unit will be serviced and inspected by the successful bidder prior to delivery of the City of Manchester, Central Fleet Management Department, Manchester, New Hampshire 03103-5596.

General:

The body shall be of a rectangular box form and shall be mounted in a stationary manner that does not require the body to be tilted in order to discharge refuse. The body shall be of a design such that no cutting, welding, and/or material modification of a standard chassis frame forward of the rear axle(s) is required to mount the body. The body shall be equipped with a

hydraulically actuated rear-loading tailgate. The body shall be capable of handling brush and trimming collection in addition to residential and commercial refuse collection.

The following specifications are mainly from a McNeilus 25 yard extra compaction (XC) rear loader and best describe what we are looking for in a collection body.

BODY

	Comply		Comments
	Yes	No	
Floor: 3/16" AR200 (one piece)			
Floor Braces (width): 3/16" GRD 50 high strength steel (formed channel)			
Floor Braces (length): C8 x 11.5" Channel			
Rear Floor Shelf: 5/16" AR200			
Side Wall, Rear Section: 1/8" AR450			
Side Wall, Front Section: 10 Gauge AR200			
Roof: 10 Gauge AR200			
Front: 3/16" GRD 50 high strength steel			
Clean Out Door: 23 1/2" x 29 1/2" (located streetside) Hinged on the front perimeter and securable to the rear perimeter of the door.			
Access door ladder – Fold up with shut down			
Body Bolsters: 10 Gauge GRD 50 high strength Steel (weldment)			
Capacity: Minimum 25 cubic yards			
Construction: Body shall have smooth curved sides with no ribs			

TAILGATE/HOPPER

	Comply		Comments
	Yes	No	
The tailgate shall be mounted on the rear of the body. The tailgate shall rotate on 2 hinges located on the upper perimeter of the tailgate equipped with replaceable pins. The tailgate shall be raised by 2 hydraulic cylinders. The lower inside perimeter of the tailgate shall be equipped with a replaceable watertight seal. Locks at 2 points on the lower side shall secure the tailgate perimeters. The locks shall be manually secured swing-away, screw-type bolt and turnbuckle clamps.			
3.55 Cubic Yard Tailgate Capacity			
60" Hopper Opening Height			
80" Hopper Width			
55" Hopper Tailgate Seal Height			
Floor: 1/4" AR200			

Hopper Liner: 3/16" AR200			
Wall Supports: 1/4" GRD 50 high strength Steel			
Side Wall, Upper Half: 3/16" GRD 50 high strength Steel			
Side Wall, Lower Half: 1/4" AR200			
Loading Edge: 1/4" GRD 50 high strength Steel			
Tracks: 8 1/2" x 3 1/2" x 1/4"			
Wear Strips: 1/2" x 3" 1044 steel			
Steps: Morton Strut, 9" x 33"			

SLIDE

	Comply		Comments
	Yes	No	
Face: 1/4" GRD 50 high strength Steel			
Side Supports: 3/4" GRD 50 high strength Steel			
Braces: 3/16" GRD 50 high strength Steel			
Slide Shoes: A500 GRD B Rectangular Tubing with 4" x 14" lower and 4" x 21" upper high performance self-lubricating polymer pads			

PACKING PANEL

The packing mechanism shall be contained within the tailgate shell. The packing mechanism shall be comprised of 3 principal components hereinafter described as a sweep/pack blade, a sweep shaft, and a slide plate. The sweep/pack blade shall rotate on the sweep shaft extending across the full lateral width of the packing mechanism. The slide plate shall travel in the tracks of the tailgate shell. 4 hydraulic cylinders described as sweep cylinders and pack cylinders shall actuate the packing mechanism. The sweep/pack blade rotation through the hopper of the tailgate (sweep cycle) shall be actuated by the 2 sweep cylinders connected to the sweep/pack blade and slide plate. The slide plate travel (pack cycle) shall be actuated by the 2 pack cylinders to the slide plate and the outer surfaces of the tailgate lower half sidewalls. The packing mechanism shall operate such that the sweep cycle terminates automatically at a point where the sweep/pack blade cutting edge is approximately 6 1/2 inches above the hopper loading sill and must be re-actuated to complete the sweep cycle. The packing mechanism shall operate such that the pack cycle shall be actuated automatically upon the termination of the sweep cycle. The sweep/pack blade and the slide plate shall have the capability to be actuated independently.

	Comply		Comments
	Yes	No	
The packing mechanism shall be capable of completing the entire sweep and pack cycle in 25-30 seconds and shall be capable of a hopper reload in 26-28 seconds after the beginning of the cycle.			
Face Plate: ¼” AR200			
Cylinder Supports: ¾” GRD 50 high strength Steel			
Braces: 3/8” GRD 50 high strength Steel			
Ribs: ½” GRD 50 high strength Steel			
Packing Panel Edge: ¾” GRD 50 high strength Steel			
Packer Bearing: 4 ½” ID x 6 1/8” Bronze Bushings			
Compaction rating: up to 1,200 lbs/yard depending on material compacting			

EJECTOR

The ejection panel shall be activated by a single hydraulic cylinder mounted in an angular attitude. The cylinder shall be connected to the ejection panel and the body front ejection cylinder clevis beam by replaceable pins. The ejection panel shall be capable of traversing the entire length of the body. The ejection mechanism shall be capable of exerting counteracting force against the payload. The ejection mechanism shall be capable of retracting automatically (“drift”) as necessary to compact the entire payload. The ejection cycle shall be accomplished by single, full stroke of the ejection mechanism cylinder.

	Comply		Comments
	Yes	No	
Upper Vertical Face: 11 Gauge GRD 50 high strength Steel			
Lower Sloped Face: 10 Gauge A569 HR Steel			
Braces: C4 x 5.4 Structural Channel			
Slide Blocks: UHMW Plastic (4 pieces per side)			
Track Guides: ¼” GRD 50 high strength Steel			
Gussets: ¼” GRD 50 high strength Steel			
Ejector Cylinder center mounted with a 45 degree welded mount assembly with 1” sides and 3/8” base fully welded to floor of body			

HYDRAULICS

	Comply		Comments
	Yes	No	
Pump Make/Model:			
Constant Mesh Chelsea 897 series, transmission mount model (or appropriate constant mesh model for system requirements)			
Pump Flow: 35 gpm @ 1300 RPM			
Control Valves: Commercial Intertech VA35, MRV			
Setting—2700 psi			
Oil Reservoir: 50 Gallons			
Shall be equipped with internal baffling to enhance oil flow and heat dissipation			
Shall be equipped with a magnetic trap extending into the reservoir to collect metal particles that may enter the hydraulic system			
Shall be equipped with two (2) – 1 inch windows to determine oil level			

Shall be equipped with a filler breather cap capable of straining oil as it is poured into the reservoir and capable of providing 35 cubic feet of air breathing capacity			
Shall be equipped with a removable cleanout port equipped with a replaceable oil tight seal.			
Filter: Parker 40 CN			
Suction Strainer: 100 mesh stainless steel with magnets			
A 120 volt, hydraulic tank heater The tank will have an electric tank heater			
Must have a diverter on the hydraulic lines to send the fluid back to the tank if the hydraulic line fails.			
System must have auxiliary hydraulic connections that enable the system to be connected to another truck to operate the ejector panel in the event the powertrain fails.			

CYLINDERS

	Comply		Comments
	Yes	No	
Ejector Cylinder: 25 yard—7 x 4 stage x 119"			
Slide Cylinder: 5 1/2" bore x 4 1/2" cylinder size x 38.62" stroke			
Sweep Cylinder: 5" bore x 4" cylinder size x 25.62" stroke			
Tailgate Cylinder: 3 1/2" bore x 3" cylinder size x 42" stroke			

HARDWARE

	Comply		Comments
	Yes	No	
Weather Pak Connector – Deutsch Connectors			
Aeroquip hoses and fittings			
Hydra-Zob and Stauff Clamps			
Rear lights, signal lights and back-up lights are 4" Truk-lite brand with Bowman brand fasteners			

CONTROLS

	Comply		Comments
	Yes	No	
Packing Mechanism Controls – Positive lever controls shall be located on the curbside of the tailgate to actuate the packing mechanism. The controls shall be capable of actuating the sweep blade and the slide plate independently. Actuation of the controls shall automatically accelerate the engine of the chassis to the proper RPM to operate the body.			
Ejection Mechanism and Tailgate Lift Controls - Positive lever controls shall be located on the street side front of the body to actuate the ejection cycle and the tailgate (raise and lower) with a manually actuated switch to accelerate the engine of the chassis to the proper RPM to operate the body.			
Container Handling Device Control – A positive lever control shall be located on both sides (curbside and streetside) of the tailgate to actuate the container handling device with a manually actuated switch to accelerate the engine of the chassis to the proper RPM to operate the body.			
Warning Alarm - A warning alarm shall be provided that emits an audible, intermittent signal when the transmission of the chassis is in the reverse position, or when the rear door of the body is not in the fully lowered position.			

LIGHTS

	Comply		Comments
	Yes	No	
General – Lights and reflectors shall be mounted in accordance with Federal Motor Vehicle Safety Standard #108. All rear lights shall be LED lights.			
Strobe Light – A starlight strobe system shall be used. The system should consist of a strobe light located in each of the four corners of the tailgate.			

OTHER

	Comply		Comments
	Yes	No	
Camera System – rear view (backup camera, center of the tailgate), cab cameras on each door (rear facing), one alley camera per side. Monitor mounted between the seats swivel with SSP Extreme 7 inch color monitor			
Mud Flaps - Splash guards shall be mounted fore and aft of the rear tires of the chassis (total quantity of 4).			
Transmission Protection – Shall have some type of shift inhibitor protection.			
Hopper Work Lights – Two sealed beam white lamps shall be mounted on the upper half of the tailgate. The lamps shall be of a 4-inch diameter. The lamps shall be capable of illuminating the hopper and the hopper loading sill of the tailgate. The lamps shall be actuated manually by a switch located in the cab of the chassis.			
Overhead Cylinder Actuated Container Handling Device – A container handling device shall be mounted on the roof of the body. The device shall be capable of engaging, raising, discharging, lowering, and disengaging standard rear loader metal containers up to a 10 cubic yard capacity. A hydraulic cylinder with cable shall actuate the device. The device shall have a 12, 000 pound life capacity.			
Paint – Paint shall be white acrylic urethane or clear coat. Paint shall be lettered and numbered and have the phrase below as well as the unit number of each truck (306 & 307 are the unit numbers for the two trucks) painted on both sides. Help Keep Manchester Clean			
The unit number shall also be painted on rear of truck.			
Rear Speakers – Rear speakers for the truck radio shall be attached in such a way that they will be secured from falling into the hopper.			
Cart Tippers – Two (2) Barker products tippers, BPHB series equivalent to a McNeilus SSPIII (Recessed mount) shall be installed			
Covers – Long Linkage			
Fender Lights – Rear Facing			
Fire Extinguishers – 5lb in cab and 20 lb under body curbside.			

Guides and Latches – Yes. Guides are to be cut flush with latches.			
Manual Linkages – both curbside and streetside			
Rear-to-Cab Buzzer – both curbside and streetside			
Safety Kit – Safety kit in cab			
PAINTING Packer and components steel shot blasted prior to priming with high solids epoxy primer. Finish Coat Akzo Coating's Sikkens high solids acrylic urethane. Solid white standard.			
First set of filters (air, oil, hydraulic and water) shall be supplied.			
One spare front tire with rim shall be provided			
One rim for front tires			

CHASSIS & PACKER BODY: Warranty.

	Comply		Comments
	Yes	No	
Packer Warranty: Cylinders: 5 years from date of delivery Hydraulic Pump and Valves: 2 years from date of delivery Packer Unit: 1 year from date of delivery Parts shall be available within 24 hours.			
Chassis/Power Train Warranty: 1 year unlimited hour full warranty parts and labor 5 Year or 3,000 hours engine warranty 5 year/unlimited mileage transmission warranty 5 year emission system warranty			
The City is interested in extended warranties. Please list your extended warranties for both the chassis and the body as options.			

LITERATURE

	Comply		Comments
	Yes	No	
The successful bidder shall furnish the following on paper One (1) complete service manual for chassis, engine and drive train equipment and packer body One (1) as-built electrical schematics that is readable to the naked eye One (1) complete parts manuals for chassis, engine and drive train equipment and packer body One (1) shop manual			

One (1) operator's manuals covering all components of the equipment for each piece of equipment One (1) DVD/CD version of all of the literature above in PDF format			
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DIAGNOSTIC SOFTWARE

	Comply		Comments
	Yes	No	
<p>The following are acceptable options for providing diagnostic and troubleshooting capabilities with the vehicle:</p> <ul style="list-style-type: none"> • Diagnostic software and necessary connectors for engine, chassis, transmission and brakes must be provided for vehicle/equipment programming and diagnostics, along with connectors and/or harnesses that are needed to complete testing or programming. • On board diagnostic capabilities that provide trouble codes with the appropriate supporting documentation necessary for repairing, maintaining and servicing the unit. • Vehicle telematics diagnostic system which Central Fleet personnel can access via the internet. System must provide the trouble codes and supporting documentation necessary for repairing, maintaining and servicing the unit. <p>Fees for any required software icenses/subscriptions for the diagnostic software or telematics diagnostic system will be included in the bid price for period from date of delivery to no later than July 1, 2019. The City already has valid subscriptions for some manufacturers. Bidders can propose extending the current subscription for a minimum of an additional 3 year period.</p> <p>For Cummins engines this includes subscription for Cummins' Insight and quick serve on line fleet programs. The Department has over 5 Cummins engines</p>			

OPERATOR/MAINTENANCE TRAINING

	Comply		Comments
	Yes	No	
<p>8 Hours of operator training to include the following topics:</p> <p>Operator before/during/after preventative maintenance checks and services to include hands on practice</p> <p>Operation of the vehicle</p>			
<p>8 hours of mechanic training to include the following topics:</p> <p>Service requirements and procedures</p> <p>Troubleshooting</p> <p>Deadlined vehicle recovery procedures</p> <p>Hydraulic troubleshooting and adjustments</p>			
<p>If Central Fleet Management does not have the diagnostic software an additional 8 hours of training on the diagnostic software is required.</p>			

BID SCHEDULE

TWO (2) HIGH COMPACTION REAR LOADER REFUSE PACKERS (FY17-230-11)

DATE & TIME: WEDNESDAY, AUGUST 10, 2016 at 2:30 PM

The undersigned, as Bidder, hereby declares that before preparing this bid he/she carefully read the specifications and hereby agrees that if the bid is accepted he/she will contract with the City on accordance with the specifications, terms and conditions as spelled out in this Sealed Bid Invitation.

<u>Item Description</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
Packer as specified	2	\$ _____ each	\$ _____

Total Bid Cost in Words: _____

Make & Model: _____

This form must be signed. All signatures must be original and not photocopied.

Authorized signature & title of Bidder

Print or type name & title of Bidder

Company Name (Corporation/general partnership organized & existing under the laws of the State of _____)

Address

City, State, Zip

Phone Number

Fax Number

REQUIRED - Email Address

Date

Vendors will be notified via email only – if no email is provided it will be the bidders' responsibility to check the website for the City of Manchester Purchasing Division for results.

Exceptions to the above specifications must be duly noted on your letterhead as a separate sheet. Please check the box if you have exceptions.